

1969

Water Resources Data for Idaho

Part 1. Surface Water Records



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

Prepared in cooperation with the State of Idaho and with other agencies

CALENDAR FOR WATER YEAR 1969

OCTOBER 1968

S	M	T	W	T	F	S
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JANUARY 1969

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JUNE 1969

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AUGUST 1969

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SEPTEMBER 1969

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Water Resources Data

for

Idaho

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Prepared in cooperation with the State of Idaho and with other agencies

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Idaho Department of Reclamation
Idaho Department of Highways
Corps of Engineers, Department of the Army
Bureau of Reclamation, U.S. Department of the Interior
U.S. Department of State
Forest Service, U.S. Department of Agriculture
Fish and Wildlife Service, U.S. Department of the Interior
Bureau of Land Management, U.S. Department of the Interior

Water-quality records for some of the gaging-station
sites in this report will be contained in:

Water Resources Data for Idaho, 1969
Part 2. Water-Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
Room 365, Federal Building
550 West Fort Street
Boise, Idaho 83702

1970

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WATER RESOURCES DATA FOR IDAHO, 1969

Part 1. Surface-Water Records

INTRODUCTION

Surface-water records for the 1969 water year for gaging stations, partial-record stations, and miscellaneous sites within the State of Idaho are given in this report and their locations shown in figures 2 and 3. Records for a few selected gaging stations in bordering States also are included. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey, under the direction of W. L. Burnham, district chief, Water Resources Division.

Through September 30, 1960, the records of discharge and stage of streams and contents and stage of lakes or reservoirs were published in an annual series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Since 1951 there have been 20 volumes in the series; each volume covered an area whose boundaries coincided with those of certain natural drainage areas. The records in Idaho were contained in Parts 10, 12, and 13 of that series.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these basic-data reports is limited and primarily for local needs. Records will be published in Geological Survey water-supply papers at 5-year intervals. These 5-year water-supply papers will show daily discharge and will be compiled on the same geographical areas previously used for the annual series; however, some of the 14 parts of conterminous United States will be further subdivided.

COOPERATION

Cooperative agreements between the U.S. Geological Survey and organizations of the State of Idaho for the systematic collection of streamflow records began in 1909. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreements with the Survey are:

Idaho Department of Reclamation, R. Keith Higginson, State Reclamation engineer.

Idaho Department of Highways, E. L. Mathes, State highway engineer.

Bear River Commission, E. O. Larson, chairman.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, for operation of 19 gaging stations; by the Bureau of Reclamation, U.S. Department of the Interior, for 23 stations; by the U.S. Department of State, for 11 stations; by the Forest Service, U.S. Department of Agriculture, for three stations and 22 crest-gage stations; by the Fish and Wildlife Service, U.S. Department of the Interior, for three stations; and by the Bureau of Land Management, U.S. Department of the Interior, for four stations.

The following organizations aided in collecting records:

Water Districts 7-AB, 9, 11-AB, 27, 36, and 66; Big Lost River Irrigation District; King Hill Irrigation District; Black Canyon Irrigation District; Idaho Power Co.; Washington Water Power Co.; Pacific Northwest Power Co.; Utah Power & Light Co.; Mann Creek Irrigation District; and Salmon River Canal Co.

DEFINITION OF TERMS

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

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

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

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

Cubic foot per second (cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

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

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

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

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Mean altitude is the average elevation of the drainage area.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Runoff in inches (IN.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

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

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

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

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

DOWNSTREAM ORDER AND STATION NUMBERS

Records are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all main-stream stations are listed before the first main-stream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report, the rank of tributaries is indicated by indentation, each indentation representing one rank.

As an added means of identification, each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations, so that the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 13-0325.00 includes the part number "13" plus a 6-digit station number. In this report, the nonessential zeros are not shown. For example, the complete number 13-0325.00 would appear as 13-0325, just to the left of the station name. In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals and stage and contents of lakes and reservoirs. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to

supplement base data in determining the daily flow. The records of stage are obtained either from a water-stage recorder that gives a continuous graph of fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter by the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. (See also SELECTED REFERENCES.)

For a stream-gaging station, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is in effect the shifting-control method.

At some stream-gaging stations, the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. Information required for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations, the stage-discharge relation is affected by changing stage; at these stations, the rate of change in stage is used as a factor in determining discharge.

At some gaging stations, the stage-discharge relation is affected by ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations, there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute the daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of basic data. For gaging stations on streams or canals, a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs, a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the 1969 water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the station gives the location, drainage area, mean altitude, if determined, period of record, type and history of gages, average discharge, extremes of discharge or contents, and general remarks. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" is taken from the River Mile Index prepared by the Hydrology Subcommittee, CBIAC. These distances are determined from river surveys and by scaling from the best maps available. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, and the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gages, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or the minimum contents), and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year:" the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graph or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge or contents, it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years, only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the

drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

Skeleton rating tables are published for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis.

The daily tables for stream-gaging stations give the discharge corresponding to the daily mean gage height unless there are large or rapid changes in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharge for several parts of a day. For digital recorders, the daily mean discharge is always the average of the discharges at each punched reading. For stations equipped with nonrecording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; but for periods of rapidly changing stage, the discharge is determined from a gage-height graph based on gage readings.

The daily tables for reservoir stations give the contents corresponding to the water-surface elevation at a given time, usually at 2400 each day. For some reservoirs, the elevation at a given time is given in the daily table.

The monthly summary is given below the daily table. For stream-gaging stations, the line headed "TOTAL" gives the sum of the daily figures; it is the total cubic feet per second per day for the month. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN.") or in acre-feet (line headed "AC-FT"). Figures of cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average rainfall on the drainage basin is usually less than 20 inches.

For reservoir stations, the monthly summary gives the elevation (or gage height) at the end of the month and the change in contents during the month. If elevation or gage height is given in the daily table, the monthly summary gives the contents at the end of the month, rather than the elevation or gage height.

In the yearly summary below the monthly summary, the figures of maximum are the maximum daily discharges for the calendar and water years; likewise, the minimums in this summary are the minimum daily discharges.

For reservoir stations, the yearly summary gives the change in contents for the calendar year and for the water year. For some small reservoirs, only monthly and yearly summaries are published.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330.

In a general footnote, introduced by the word "NOTE", certain periods are indicated for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs. Footnotes to reservoir tables may be used to explain the use of new capacity tables or for other special conditions.

Accuracy of Data

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent; "good" within 10 percent, and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation, evaporation, or other factors. For such stations, discharge in cubic feet per second per square mile and runoff in inches are not published unless satisfactory adjustments can be made for such effects. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records of surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area. A new series of water-supply papers containing surface-water records for the 5-year period October 1, 1960, to September 30, 1965, also will include lists of annual and special reports published as water-supply papers.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Papers 1314(10), 1316(12), and 1317(13); records for October 1950 to September 1960 have been compiled and published in Water-Supply Papers 1734(10), 1736(12), and 1737(13). These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and

revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other Data Available

Data collected at partial-record stations and at miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of annual maximum stage and discharge at crest-stage stations, the second is a table of discharge measurements at miscellaneous sites, and the third is a table showing the results of Portneuf River basin inflow investigation between Portneuf Dam and the gaging station at Pocatello.

More detailed information than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Many gaging-station records in Idaho through 1968 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; (3) the highest mean discharge for selected numbers of consecutive days in each year; (4) flood frequency by the Log-Pearson type III method; and (5) flow variability of annual and monthly flows.

At or near some gaging stations, water-quality records also are collected. Data are obtained on the chemical quality of the stream water, on water temperature, on suspended-sediment concentration, and on the particle-size distribution of suspended sediment and bed material. These data are given in Part 2 of this report. Under the "REMARKS" paragraph of the gaging-station description, reference is made to water-quality records collected on a regular basis.

HYDROLOGIC CONDITIONS

Streamflow for the water year averaged above the mean of record at practically all gaging stations, and ranged from slightly above 100 percent of the long-term mean in the Snake River above Heise to more than 200 percent at some sites in Big Wood River basin. Combined flow in Big Wood River and Slough has been higher in only 2 years of the 53 years of record. Mean annual flows in Little Wood River above High Five Creek, South Fork Boise near Featherville, Weiser River near Weiser, Snake River at Weiser, Clearwater River at Spalding, Kootenai River near Copeland, and others were excessive (in the highest 25 percent of the period of record).

Annual peak flows at crest gages were highest or next to the highest in about 9 years of record at nearly one third of the crest-gage sites in the State. Annual peaks at regular gaging stations exceeded 20-year recurrence intervals at a few sites.

Precipitation exceeded previous maximums of record for the months of August 1968 and January 1969 at many Weather Bureau stations. Precipitation totaled near normal for the remainder of the 1969 water year. Streamflow continued at excessive rates throughout the State from August to November 1968 and in many streams in December 1968 through February 1969. Excessive flows also occurred over most of the State in April and over a considerable part in May. Below average flows occurred at many sites in March as a result of below normal precipitation and temperatures. Snowmelt from the higher

elevations occurred earlier than usual. Precipitation and runoff were near normal June through September. Carryover storage in reservoirs was near normal at the end of the water year.

Monthly and annual mean discharge is compared with medians at two long-term representative gaging stations in figure 1.

SELECTED REFERENCES

- Carter, R. W., and Davidian, Jacob, 1968, General procedure for gaging streams: U.S. Geol. Survey Techniques Water-Resources Inv., book 3, chap. A6, 13 p.
- Corbett, D. M., and others, 1943, Stream-gaging procedure, a manual describing methods and practices of the Geological Survey: U.S. Geol. Survey Water-Supply Paper 888, 245 p.
- Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

HYDROLOGIC CONDITIONS

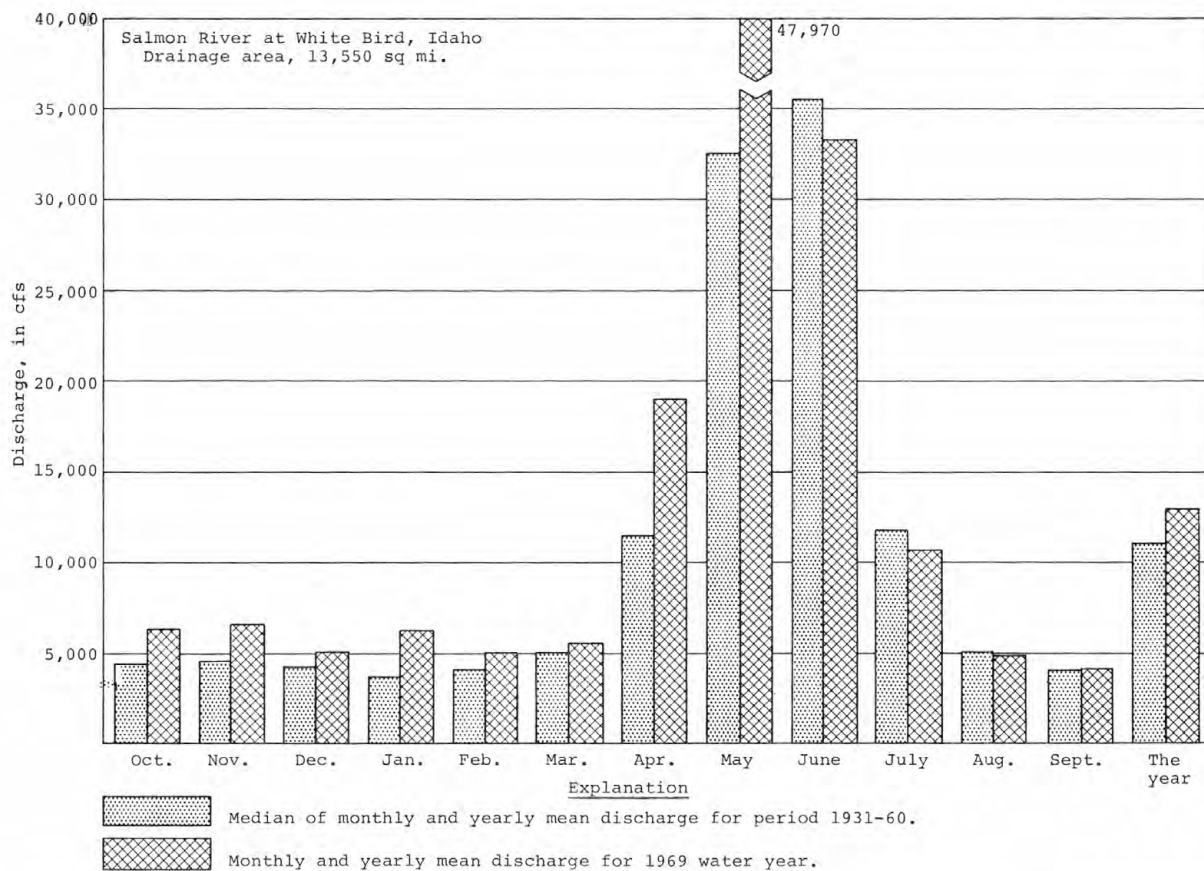
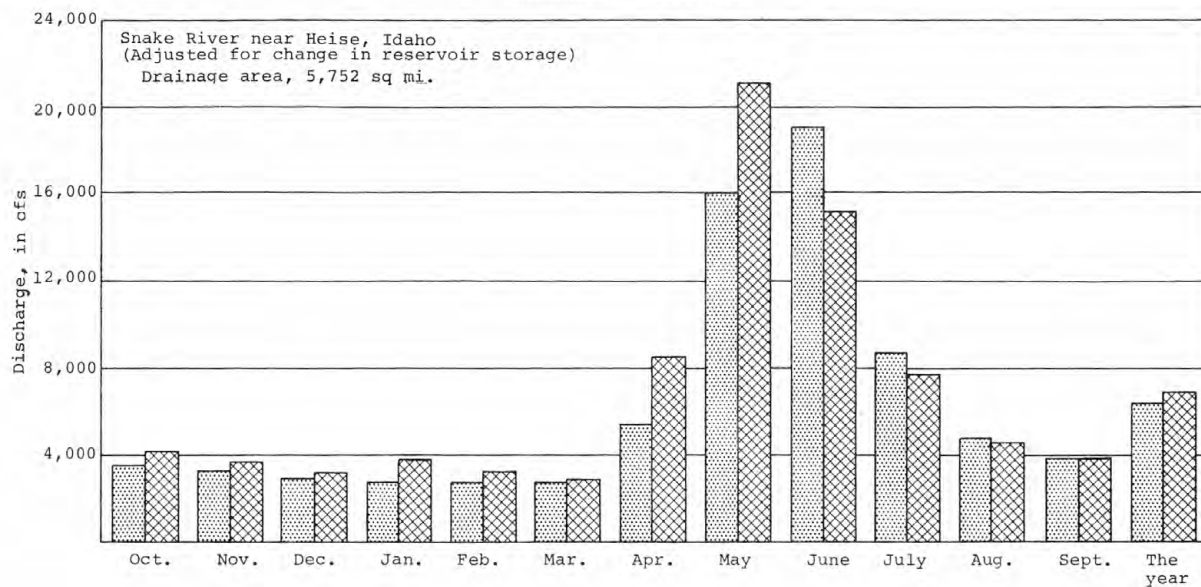


FIGURE 1. Comparison of discharge at two long-term representative gaging stations during 1969 water year with median discharge for period 1931-60.

THE GREAT BASIN

BEAR RIVER BASIN

10-0395. Bear River at Border, Wyo.

LOCATION.--Lat 42°12'40" (revised), long 111°03'11", in NE¼NE¼ sec.15, T.14 S., R.46 E., Bear Lake County, Idaho, on left bank 0.2 mile west of Wyoming-Idaho State line, 0.5 mile west of Border, and 2.1 miles up-stream from Thomas Fork.

DRAINAGE AREA.--2,490 sq mi, approximately.

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,051.63 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--32 years, 401 cfs (290,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, not determined, occurred during ice breakup and float cable off recorder wheel; minimum, 102 cfs Sept. 9, 10.

Period of record: Maximum discharge, 3,680 cfs May 11, 1952 (gage height, 8.89 ft); minimum daily, 30 cfs Aug. 18-22, 1940.

REMARKS.--Records good except those for winter months, which are fair. Diversions for irrigation of about 122,000 acres above station. Records of chemical analysis for the water year 1969 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	238	280	250	220	205	1,000	1,300	548	553	220	119
2	158	236	280	240	220	205	1,600	1,280	514	580	226	117
3	160	234	290	235	220	205	2,800	1,300	487	609	220	116
4	160	240	290	230	220	205	3,600	1,370	458	536	214	114
5	164	244	290	235	220	205	3,300	1,430	427	511	207	113
6	166	244	290	250	220	205	3,100	1,510	405	470	184	110
7	165	244	290	250	220	205	3,000	1,600	424	455	184	106
8	171	244	290	250	220	205	2,850	1,680	444	444	184	105
9	164	263	290	250	220	205	2,640	1,720	472	424	175	105
10	162	277	290	250	220	205	2,360	1,740	470	405	175	104
11	162	246	280	240	220	200	2,140	1,790	470	379	171	124
12	166	238	280	220	220	185	1,960	1,840	449	355	178	141
13	164	281	280	220	220	185	1,760	1,850	496	331	164	119
14	182	281	280	230	220	185	1,560	1,860	536	319	145	114
15	230	270	280	240	220	185	1,470	1,870	520	372	144	113
16	226	250	265	250	210	185	1,450	1,860	564	400	146	110
17	251	240	265	240	205	185	1,410	1,720	622	372	149	110
18	224	270	265	230	205	190	1,400	1,530	751	357	157	110
19	210	320	265	220	205	210	1,370	1,460	733	350	153	111
20	208	310	265	230	205	220	1,310	1,380	729	352	155	113
21	208	279	260	250	205	225	1,270	1,170	718	326	145	117
22	210	263	250	260	205	230	1,300	1,020	733	301	137	119
23	210	279	250	250	205	240	1,330	932	722	288	132	121
24	212	268	255	240	205	250	1,400	912	711	281	125	117
25	216	279	255	240	205	270	1,470	888	718	285	124	116
26	232	260	255	230	205	290	1,380	868	686	270	127	110
27	238	280	255	230	205	320	1,300	751	652	261	129	117
28	240	310	255	230	205	350	1,270	740	622	255	127	122
29	242	290	255	230	-----	400	1,280	669	629	242	124	122
30	240	290	255	230	-----	500	1,320	606	616	240	117	125
31	240	-----	255	230	-----	700	-----	571	-----	228	121	-----
TOTAL	6,147	7,968	8,405	7,380	5,570	7,755	55,400	41,217	17,326	11,601	4,967	3,460
MEAN	198	266	271	238	213	250	1,847	1,330	578	374	160	115
MAX	251	320	290	260	220	700	3,600	1,870	751	609	226	141
MIN	158	234	250	220	205	185	1,000	571	405	228	117	104
AC-FT	12,190	15,800	16,670	14,640	11,840	15,380	109,900	81,750	34,370	23,010	5,850	6,860

CAL YR 1968: TOTAL 151,981 MEAN 415 MAX 2,740 MIN 139 AC-FT 301,400
WTR YR 1969: TOTAL 177,596 MEAN 487 MAX 3,600 MIN 104 AC-FT 352,300

NOTE.--No gage-height record Apr. 4-7.

BEAR RIVER BASIN

10-0410. Thomas Fork near Wyoming-Idaho State line

LOCATION.--Lat 42°24'10", long 111°01'30", in SE¼NW¼ sec.19, T.28 N., R.119 W., Lincoln County, Wyo., on right bank 1.3 miles upstream from State line, 1.5 miles downstream from Giraffe Creek, and 3.5 miles northeast of Geneva, Idaho.

DRAINAGE AREA.--113 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,280 ft (from topographic map). Prior to Aug. 23, 1957, at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE.--20 years, 50.8 cfs (36,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 579 cfs Apr. 23 (gage height, 3.00 ft); minimum, 7.0 cfs Nov. 13.
Period of record: Maximum discharge, 869 cfs May 18, 1950 (gage height, 5.55 ft, site and datum then in use); minimum, 2.6 cfs Mar. 2, 1956, result of freezeup.

REMARKS.--Records good except those for winter months, which are fair. No diversion above station. Records of chemical analysis for the water year 1969 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	14	16	14	15	12	34	322	104	52	30	15
2	14	14	17	14	15	12	40	354	99	50	28	15
3	14	15	17	14	15	12	45	410	96	50	27	16
4	14	17	17	14	15	12	48	421	91	48	26	16
5	14	16	16	15	15	12	63	432	90	47	25	15
6	14	14	15	16	15	12	79	472	88	46	25	15
7	14	14	16	16	15	12	63	472	88	48	24	15
8	13	15	17	15	15	12	53	456	88	46	24	15
9	14	18	17	14	15	12	54	425	85	44	23	16
10	14	17	18	13	15	12	70	406	85	43	23	18
11	14	16	17	14	15	12	86	384	85	42	23	24
12	14	16	15	16	15	12	85	347	85	40	30	18
13	14	13	14	16	16	12	88	326	85	40	26	18
14	26	12	14	14	15	12	96	309	80	39	24	18
15	28	14	15	15	14	12	97	298	78	44	23	17
16	20	14	16	15	14	12	92	266	79	50	23	16
17	18	12	14	15	14	12	106	238	73	39	23	16
18	16	14	14	15	14	15	123	224	70	37	24	16
19	16	15	14	14	14	12	124	210	68	37	23	16
20	15	16	13	15	14	14	162	195	68	34	22	17
21	15	14	14	15	14	15	221	182	70	34	22	22
22	14	16	14	15	12	13	292	172	70	33	21	18
23	14	14	14	15	12	12	387	160	63	32	20	16
24	14	16	16	15	12	12	398	151	73	32	20	16
25	14	16	17	15	11	13	279	144	70	34	18	16
26	14	15	15	15	13	13	238	136	67	32	18	16
27	13	14	15	15	11	14	213	130	62	30	18	15
28	13	13	15	15	11	15	229	126	64	30	18	14
29	13	13	14	15	-----	18	289	119	59	31	16	14
30	13	15	14	15	-----	20	322	115	55	34	16	14
31	13	-----	14	15	-----	25	-----	110	-----	30	16	-----
TOTAL	470	442	474	459	391	415	4,476	8,512	2,338	1,228	699	493
MEAN	15.2	14.7	15.3	14.8	14.0	13.4	149	275	77.9	39.6	22.5	16.4
MAX	28	18	18	16	16	25	398	472	104	52	30	24
MIN	13	12	13	13	11	12	34	110	55	30	16	14
AC-FT	932	877	940	910	776	823	8,880	16,880	4,640	2,440	1,350	578

CAL YR 1968: TOTAL 10,448

MEAN 28.5

MAX 99

MIN 12

AC-FT 20,720

WTR YR 1969: TOTAL 20,397

MEAN 55.9

MAX 472

MIN 11

AC-FT 40,460

PEAK DISCHARGE (BASE, 150 CFS).--April 23 (2300) 579 cfs (3.00 ft).

10-0440. Bear River at Harer, Idaho

LOCATION.--Lat 42°11'50", long 111°10'05", in NW¼ sec.23, T.14 S., R.45 E., Bear Lake County, on right bank 400 ft downstream from Sheep Creek, 0.8 mile north of Harer siding on Union Pacific (Oregon Short Line) Railroad, and 5 miles southeast of Dingle.

DRAINAGE AREA.--2,780 sq mi, approximately.

PERIOD OF RECORD.--June 1913 to current year. Monthly discharge only October 1916 to December 1918 published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 6,000 ft (from topographic map). Prior to Aug. 24, 1914, nonrecording gage at site 1,500 ft downstream at different datum.

AVERAGE DISCHARGE.--56 years, 507 cfs (367,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,260 cfs Apr. 16 (gage height, 10.25 ft); minimum, 137 cfs Sept. 17. Period of record: Maximum discharge, 4,440 cfs May 7, 1952 (gage height, 11.04 ft); minimum daily, 26 cfs Aug. 21-27, 1934.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation of about 140,000 acres.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	278	265	245	235	245	994	1,740	694	748	284	149
2	198	275	285	240	230	245	1,400	1,730	680	723	284	149
3	196	275	305	250	230	250	1,500	1,710	623	740	288	145
4	191	281	285	255	230	250	2,240	1,750	606	689	278	145
5	184	281	285	265	225	250	2,950	1,830	584	636	269	145
6	186	284	285	275	225	250	3,220	1,880	575	601	252	143
7	191	281	275	280	225	250	3,140	1,970	592	536	230	143
8	191	281	275	280	225	245	3,060	2,030	610	540	230	141
9	191	294	280	275	220	245	2,960	2,090	645	515	219	141
10	186	316	280	260	225	245	2,830	2,110	663	486	208	140
11	230	310	280	250	225	245	2,660	2,110	667	455	201	139
12	208	272	275	260	230	240	2,490	2,180	641	436	204	154
13	201	294	270	260	230	240	2,310	2,210	636	402	206	165
14	211	310	260	260	235	240	2,070	2,200	706	388	191	160
15	243	333	260	265	240	240	1,910	2,180	748	388	179	154
16	272	297	265	270	240	245	1,870	2,160	792	490	177	147
17	266	258	265	270	240	245	1,830	2,110	832	443	198	137
18	281	310	270	275	240	240	1,790	1,890	966	424	208	137
19	255	360	270	280	240	250	1,780	1,740	1,030	402	198	139
20	249	363	260	285	235	250	1,730	1,630	995	432	186	145
21	260	339	250	280	230	250	1,680	1,460	973	421	184	149
22	252	313	245	280	230	240	1,670	1,270	936	381	181	154
23	249	313	240	280	230	260	1,730	1,180	943	343	172	158
24	249	310	250	280	230	290	1,770	1,170	921	339	163	181
25	252	316	245	270	235	280	1,870	1,110	936	339	156	172
26	260	285	260	270	235	300	1,870	1,070	958	339	158	174
27	269	290	255	270	240	305	1,770	980	894	326	160	165
28	275	260	250	270	240	340	1,710	878	847	323	158	169
29	278	280	245	260	-----	395	1,700	863	792	310	158	165
30	281	260	245	250	-----	540	1,720	760	764	300	156	163
31	278	-----	245	240	-----	727	-----	727	-----	294	152	-----
TOTAL	7,231	8,919	8,225	8,250	6,495	8,837	62,224	50,718	23,249	14,189	6,288	4,568
MEAN	233	297	265	266	232	285	2,074	1,636	775	458	203	152
MAX	281	363	305	285	240	727	3,220	2,210	1,030	748	288	181
MIN	184	258	240	240	220	240	994	727	575	294	152	137
AC-FT	14,340	17,690	16,310	16,360	12,880	17,530	123,400	100,600	46,110	28,140	12,470	9,060
CAL YR 1968: TOTAL	165,685			MEAN 453	MAX 2,530	MIN 179	AC-FT 328,600					
WTR YR 1969: TOTAL	209,193			MEAN 573	MAX 3,220	MIN 137	AC-FT 414,900					

BEAR RIVER BASIN

10-0460. Rainbow inlet canal near Dingle, Idaho

LOCATION.--Lat 42°13'48" (revised), long 111°17'43", in SE¼ sec.3, T.14 S., R.44 E., Bear Lake County, on left bank 1.5 miles west of Dingle and 1.8 miles downstream from headworks at Stewart Dam.

PERIOD OF RECORD.--January 1922 to current year. Monthly discharge only prior to October 1945, published in WSP 1314.

GAGE.--Water-stage recorder. Datum of gage is 5,922.0 ft above mean sea level (by topographic survey). Prior to Oct. 1, 1923, at site 300 ft downstream at different datum; Oct. 1, 1923, to Oct. 27, 1944, at site 0.5 mile downstream at different datum.

AVERAGE DISCHARGE.--47 years, 315 cfs (228,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,060 cfs Apr. 7 (gage height, 7.67 ft); minimum, 17 cfs Sept. 9. Period of record: Maximum discharge, 4,180 cfs May 7, 1952 (gage height, 8.62 ft); minimum daily, 1 cfs on several days in 1931, 1934, 1940, 1948.

REMARKS.--Records good. Discharge measurements generally made three to six times a week. Canal diverts from Bear River at Stewart Dam in NE¼ sec.34, T.13 S., R.44 E., for storage in Bear Lake. At times flow in canal is augmented by surplus water from Black Otter Slough entering at the station and by seepage and wastage from irrigation lands on both sides of canal. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	224	186	165	195	205	657	1,600	384	376	178	87
2	161	226	210	175	195	210	972	1,590	356	364	178	87
3	163	228	226	175	195	210	1,280	1,580	270	350	182	89
4	161	233	208	186	190	210	1,560	1,570	255	347	175	82
5	155	233	212	190	190	215	2,420	1,620	233	312	163	79
6	153	228	206	203	190	215	2,850	1,690	208	347	155	70
7	153	226	206	215	190	215	3,040	1,700	169	370	147	51
8	151	226	203	220	190	215	2,960	1,740	155	342	138	34
9	151	231	208	205	190	210	2,950	1,790	136	344	138	22
10	161	247	206	190	188	210	2,830	1,840	132	296	136	29
11	169	265	206	190	186	210	2,710	1,880	117	299	128	30
12	157	247	199	203	190	205	2,560	1,900	114	278	124	32
13	147	238	195	210	195	205	2,390	1,910	105	280	128	47
14	153	252	191	219	200	200	2,160	1,930	128	275	128	58
15	165	235	186	215	200	200	1,890	1,890	145	260	124	62
16	186	278	190	224	200	200	1,810	1,890	192	286	124	61
17	188	212	192	225	200	200	1,740	1,850	245	296	123	58
18	197	190	199	225	200	200	1,700	1,720	309	270	112	51
19	188	291	203	230	200	200	1,720	1,480	478	247	124	51
20	180	301	193	230	195	208	1,680	1,330	462	240	121	38
21	186	296	182	230	195	208	1,620	1,160	462	243	114	37
22	188	273	170	230	195	203	1,560	940	450	224	112	35
23	215	262	160	230	190	203	1,600	700	453	228	108	34
24	215	260	175	225	190	243	1,610	653	450	210	96	32
25	215	250	169	228	195	233	1,700	625	453	197	99	29
26	247	199	182	225	200	260	1,710	597	487	206	96	29
27	252	206	184	230	200	260	1,670	559	468	190	94	29
28	243	178	184	225	200	265	1,600	500	456	180	96	27
29	235	203	182	220	-----	312	1,580	478	420	182	92	24
30	228	180	180	210	-----	364	1,580	444	390	180	89	24
31	228	-----	177	205	-----	459	-----	411	-----	165	90	-----
TOTAL	5,719	7,118	5,970	6,553	5,444	7,153	58,109	41,567	9,082	8,384	3,912	1,418
MEAN	184	237	193	211	194	231	1,937	1,341	303	270	126	47.3
MAX	252	301	226	230	200	459	3,040	1,930	487	376	182	89
MIN	128	178	160	165	186	200	657	411	105	165	89	22
AC-FT	11,340	14,120	11,840	13,000	10,800	14,190	115,300	82,450	18,010	16,630	7,760	2,810
CAL YR 1968: TOTAL	120,900.3			MEAN 330	MAX 2,000	MIN 6.3	AC-FT 239,800					
WTR YR 1969: TOTAL	160,429			MEAN 440	MAX 3,040	MIN 22	AC-FT 318,200					

BEAR RIVER BASIN

15

10-0465. Bear River below Stewart Dam, near Montpelier, Idaho

LOCATION.--Lat 42°15'14", long 111°17'35", in NE¼ sec.34, T.13 S., R.44 E., Bear Lake County, on right bank 300 ft downstream from Stewart Dam and 4.5 miles south of Montpelier.

DRAINAGE AREA.--2,820 sq mi, approximately.

PERIOD OF RECORD.--January 1922 to current year. Monthly discharge only January 1922 to September 1945, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 5,950 ft (from topographic map).

AVERAGE DISCHARGE.--47 years, 52.7 cfs (38,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20 cfs Apr. 4 (gage height, 1.26 ft); minimum, 0.3 cfs Sept. 8. Period of record: Maximum daily discharge, 3,050 cfs June 3, 1923; no flow July 15, 1956.

REMARKS.--Records good. Discharge measurements generally made once a week. Water diverted at Stewart Dam through Rainbow inlet canal (see sta 10-0460) for storage and regulation in Bear Lake. Many diversions above station for irrigation.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	7.4	6.5	4.8	6.5	7.1	12	6.2	4.0	8.0	7.1	4.2
2	5.6	7.7	6.5	5.0	6.2	7.1	11	5.9	4.2	8.0	6.5	3.4
3	5.6	8.0	6.5	5.0	5.9	7.1	12	5.9	6.2	8.0	6.5	2.8
4	5.3	8.0	6.5	5.3	5.3	7.4	14	5.9	6.2	8.0	5.9	2.4
5	5.3	8.0	6.8	5.3	5.0	7.7	14	5.9	6.2	7.7	5.6	2.0
6	5.6	8.0	6.8	5.6	5.0	7.4	16	5.9	6.8	7.7	5.6	1.6
7	5.9	8.0	6.8	6.8	5.3	7.1	16	6.8	6.2	7.7	5.0	.90
8	5.9	7.7	6.8	7.1	5.3	7.1	14	8.0	6.5	7.7	5.0	.40
9	5.9	7.4	6.8	7.1	5.3	7.1	14	8.8	5.9	8.0	4.8	4.0
10	5.9	7.7	6.8	7.1	5.3	7.1	14	8.8	5.6	8.0	5.0	4.2
11	6.2	8.0	6.5	7.4	5.3	6.8	12	9.6	5.9	7.7	4.4	4.4
12	6.2	7.7	6.2	7.4	5.3	6.5	12	9.2	5.9	7.7	4.0	4.4
13	6.2	8.0	6.2	7.7	5.6	6.8	10	10	6.2	7.4	4.0	4.2
14	6.2	8.0	5.9	7.7	5.6	7.1	8.0	11	5.9	7.7	4.4	4.6
15	6.5	8.4	5.6	8.0	5.9	7.1	6.8	11	6.8	7.7	3.8	4.6
16	6.8	8.4	5.3	8.0	6.2	7.1	7.1	10	6.8	7.7	3.2	4.8
17	7.1	7.7	5.6	8.0	6.2	7.7	6.5	10	6.5	7.7	3.0	5.3
18	7.1	7.4	5.3	8.0	6.2	7.7	6.5	10	7.1	7.7	2.8	5.3
19	7.7	8.0	5.3	8.4	5.9	8.4	6.5	10	7.7	8.0	5.9	6.2
20	8.0	8.4	5.6	8.4	5.9	8.8	6.8	11	7.7	7.7	5.4	5.6
21	8.0	8.4	5.3	8.4	6.2	9.2	6.8	11	7.7	7.7	4.8	5.9
22	8.0	8.0	5.3	8.8	6.5	8.8	6.5	5.8	8.0	7.4	5.0	5.6
23	8.0	7.7	5.0	8.8	6.8	9.2	6.5	3.2	8.0	7.7	4.4	5.6
24	7.7	8.0	5.6	8.4	6.8	9.2	6.5	4.6	8.0	7.7	4.4	5.3
25	7.7	7.4	5.6	8.0	6.8	10	6.5	4.8	8.0	7.4	4.2	5.3
26	7.7	7.1	5.6	7.7	6.8	10	6.8	5.6	8.4	6.8	4.0	5.3
27	8.0	7.1	6.2	7.7	6.8	10	6.5	5.6	8.4	6.8	3.8	5.6
28	7.7	6.8	5.9	7.7	7.4	11	6.2	5.0	8.4	7.1	4.0	5.6
29	7.7	6.8	5.6	7.4	-----	10	6.2	5.0	8.4	6.8	4.4	5.9
30	8.0	6.5	5.3	7.1	-----	9.6	5.9	5.0	7.7	7.1	4.6	6.2
31	7.7	-----	5.0	6.5	-----	10	-----	4.4	-----	6.2	4.6	-----
TOTAL	210.2	231.7	184.7	224.6	167.3	253.2	283.6	229.9	205.3	234.5	146.1	131.60
MEAN	6.78	7.72	5.96	7.25	5.98	8.17	9.45	7.42	6.84	7.56	4.71	4.39
MAX	8.0	8.4	6.8	8.8	7.4	11	16	11	8.4	8.0	7.1	6.2
MIN	5.0	6.5	5.0	4.8	5.0	6.5	5.9	3.2	4.0	6.2	2.8	.40
AC-FT	417	460	366	445	332	502	563	456	407	465	290	261
CAL YR 1968: TOTAL	2,201.4			MEAN 6.01	MAX 10	MIN 2.2	AC-FT 4,370					
WTR YR 1969: TOTAL	2,502.70			MEAN 6.86	MAX 16	MIN .40	AC-FT 4,960					

BEAR RIVER BASIN

10-0475. Montpelier Creek at irrigators weir, near Montpelier, Idaho

LOCATION.--Lat 42°19'47", long 111°14'12", in SW¼SE¼ sec.31, T.12 S., R.45 E., Bear Lake County, on right bank 3 miles east of Montpelier and 3.5 miles downstream from South Fork.

DRAINAGE AREA.--50.9 sq mi.

PERIOD OF RECORD.--October 1942 to current year. Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 6,210 ft (from topographic map).

AVERAGE DISCHARGE.--27 years, 21.3 cfs (15,430 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 124 cfs Apr. 24 (gage height, 2.29 ft); minimum, 0.7 cfs Mar. 4.
Period of record: Maximum discharge, 224 cfs May 18, 1950; maximum gage height, 3.06 ft Apr. 28, 1962;
minimum discharge, 0.40 cfs Jan. 28, 1961.

REMARKS.--Records excellent. One small diversion above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	8.7	9.5	9.0	9.5	8.2	17	87	52	29	16	12
2	9.5	8.5	10	8.7	8.7	7.9	21	88	50	29	16	12
3	9.5	9.2	9.8	7.2	8.2	7.4	22	91	49	28	16	12
4	9.5	9.8	9.0	9.0	6.9	6.9	22	92	48	27	14	12
5	9.8	9.2	9.2	8.5	8.2	6.9	26	93	46	27	13	12
6	10	8.7	9.0	9.0	9.5	7.9	28	94	45	27	13	12
7	10	8.2	7.2	7.9	9.2	7.4	26	95	46	29	13	12
8	10	7.9	9.5	6.7	7.9	6.9	23	91	45	26	13	11
9	10	9.8	8.2	6.0	7.7	6.7	25	91	42	24	13	11
10	10	9.5	8.2	5.2	8.7	9.8	29	89	42	24	14	11
11	10	9.5	9.0	7.4	7.9	10	35	87	42	21	14	11
12	9.8	9.5	8.7	9.2	7.9	10	37	85	41	21	18	11
13	9.8	8.7	6.9	8.2	7.9	8.2	38	83	41	21	16	11
14	12	6.7	8.7	8.2	6.9	5.1	40	85	40	21	15	11
15	14	8.2	9.5	8.2	7.2	7.4	41	82	40	24	14	11
16	11	8.5	9.0	7.9	7.9	11	42	79	45	27	14	11
17	10	7.9	8.7	7.4	7.2	9.0	46	74	40	22	14	11
18	11	8.5	8.5	5.8	6.0	7.9	49	72	38	21	14	11
19	10	9.0	8.7	8.5	7.4	7.9	52	70	36	20	14	11
20	10	9.0	7.2	11	8.7	6.9	59	69	37	20	14	11
21	10	8.5	6.9	12	7.7	7.2	71	68	36	20	13	17
22	9.8	8.7	7.4	12	7.4	7.4	85	66	35	19	13	13
23	9.8	8.7	9.0	7.4	7.2	7.7	99	64	34	19	12	12
24	10	8.2	10	7.4	7.4	6.9	110	64	38	19	12	12
25	9.2	9.2	9.0	9.5	6.5	6.9	94	62	38	20	12	11
26	9.0	6.0	8.5	10	7.7	7.4	84	59	38	20	11	11
27	8.5	7.2	8.2	9.5	6.7	8.7	78	59	35	18	11	11
28	8.7	6.2	8.2	8.7	6.7	9.2	80	58	36	18	11	11
29	8.7	5.6	7.2	7.9	-----	10	87	57	35	18	11	10
30	8.7	7.9	5.4	6.7	-----	12	89	55	32	20	12	10
31	8.7	-----	9.0	9.0	-----	14	-----	53	-----	17	12	-----
TOTAL	306.5	251.2	263.3	259.1	216.8	256.8	1,555	2,362	1,222	696	418	345
MEAN	9.89	8.37	8.49	8.36	7.74	8.28	51.8	76.2	40.7	22.5	13.5	11.5
MAX	14	9.8	10	12	9.5	14	110	95	52	29	18	17
MIN	8.5	5.6	5.4	5.2	6.0	5.1	17	53	32	17	11	10
AC-FT	608	498	522	514	430	509	3,080	4,680	2,420	1,380	829	684
CAL YR 1968: TOTAL	5,409.0		MEAN 14.8		MAX 42		MIN 5.4		AC-FT 10,730			
WTR YR 1969: TOTAL	8,151.7		MEAN 22.3		MAX 110		MIN 5.1		AC-FT 16,170			

BEAR RIVER BASIN

17

10-0555. Bear Lake at Lifton, near St. Charles, Idaho

LOCATION.--Lat 42°07'16", long 111°18'52", in NE¼ sec.16; T.15 S., R.44 E., Bear Lake County, in Lifton pumping plant of Utah Power & Light Company and 3.5 miles east of St. Charles.

DRAINAGE AREA.--435 sq mi, approximately (does not include Mud Lake drainage).

PERIOD OF RECORD.--October 1903 to June 1906 (gage heights only), January 1921 to current year. Monthly contents only January 1921 to September 1945 published in WSP 1314. Published as Bear Lake at Fish Haven 1903-6.

GAGE.--Water-stage recorder. Datum of gage is 5,900 ft above mean sea level, unadjusted (levels by Utah Power & Light Co.). October 1903 to June 1906, staff gage at different site and datum.

EXTREMES.--Current year: Maximum contents, 1,276,000 acre-ft July 9-16 (gage height, 21.58 ft); minimum, 1,043,000 acre-ft Mar. 27-29 (gage height, 18.25 ft).

Period of record: Maximum contents, 1,423,000 acre-ft June 10, 1923 (gage height, 23.68 ft); no usable contents Nov. 9-19, 1935 (gage height, 2.00 ft, lower limit of pumps).

REMARKS.--Outflow regulated by gates and pumps at Bear Lake and by gates in dike at north end of Mud Lake. Inflow to lake augmented by water diverted from Bear River through Rainbow inlet canal and Dingle inlet canal, which empty into Mud Lake (see sta 10-0460). Water from Mud Lake reaches Bear Lake by a sluice at pumping plant or by gates in causeway at south end of Mud Lake. Capacity, 1,421,000 acre-ft between gage heights 2.00 (lower limit of pumps) and 23.65 ft (present feasible upper limit of storage with existing facilities). Storage water used for irrigation and power development. Figures given herein represent usable contents.

COOPERATION.--Gage heights furnished by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. Contents computed by Geological Survey from capacity table based on data furnished by Utah Power & Light Co.

CONTENTS, IN THOUSANDS OF ACRE-FEET, AT 2330, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,166	1,144	1,110	1,076	1,063	1,066	1,045	1,166	1,259	1,271	1,244	1,181
2	1,166	1,143	1,108	1,074	1,063	1,065	1,047	1,170	1,259	1,272	1,243	1,180
3	1,166	1,141	1,107	1,074	1,063	1,065	1,051	1,173	1,259	1,273	1,242	1,178
4	1,166	1,140	1,105	1,072	1,063	1,065	1,055	1,177	1,259	1,273	1,241	1,177
5	1,165	1,138	1,103	1,072	1,063	1,065	1,060	1,180	1,259	1,273	1,240	1,175
6	1,165	1,138	1,102	1,071	1,064	1,065	1,065	1,184	1,258	1,274	1,238	1,173
7	1,164	1,136	1,100	1,070	1,065	1,064	1,071	1,188	1,258	1,275	1,237	1,170
8	1,164	1,135	1,099	1,069	1,065	1,063	1,079	1,192	1,258	1,275	1,235	1,169
9	1,163	1,134	1,098	1,067	1,065	1,062	1,086	1,195	1,258	1,276	1,233	1,167
10	1,163	1,133	1,097	1,067	1,065	1,061	1,092	1,198	1,258	1,276	1,230	1,166
11	1,162	1,131	1,097	1,065	1,065	1,060	1,097	1,202	1,258	1,276	1,227	1,164
12	1,162	1,131	1,095	1,065	1,065	1,058	1,101	1,206	1,258	1,276	1,224	1,164
13	1,161	1,129	1,094	1,064	1,065	1,057	1,104	1,210	1,258	1,276	1,221	1,163
14	1,161	1,128	1,094	1,063	1,065	1,056	1,106	1,215	1,258	1,276	1,218	1,162
15	1,161	1,127	1,092	1,062	1,065	1,054	1,110	1,220	1,258	1,276	1,215	1,161
16	1,161	1,125	1,091	1,062	1,066	1,053	1,113	1,224	1,259	1,276	1,212	1,160
17	1,161	1,124	1,090	1,061	1,066	1,051	1,118	1,229	1,259	1,275	1,210	1,160
18	1,161	1,123	1,089	1,060	1,066	1,050	1,121	1,234	1,260	1,275	1,208	1,159
19	1,160	1,122	1,088	1,060	1,065	1,049	1,125	1,238	1,261	1,273	1,207	1,159
20	1,159	1,122	1,087	1,059		1,051	1,130	1,242	1,262	1,271	1,206	1,158
21	1,157	1,121	1,085	1,059	1,065	1,047	1,134	1,245	1,262	1,268	1,203	1,157
22	1,156	1,120	1,084	1,059	1,065	1,046	1,138	1,248	1,263	1,266	1,202	1,157
23	1,154	1,119	1,083	1,059	1,065	1,045	1,143	1,251	1,264	1,262	1,200	1,156
24	1,154	1,118	1,083	1,059	1,065	1,044	1,146	1,253	1,264	1,259	1,198	1,155
25	1,153	1,118	1,082	1,059	1,066	1,044	1,150	1,255	1,266	1,255	1,196	1,154
26	1,152	1,116	1,081	1,060	1,066	1,044	1,152	1,257	1,267	1,252	1,194	1,154
27	1,150	1,115	1,081	1,061	1,066	1,043	1,155	1,258	1,268	1,249	1,192	1,153
28	1,149	1,113	1,080	1,062	1,066	1,043	1,158	1,258	1,268	1,248	1,189	1,152
29	1,148	1,111	1,078	1,063	-----	1,043	1,161	1,259	1,269	1,246	1,187	1,152
30	1,146	1,110	1,078	1,063	-----	1,044	1,164	1,259	1,271	1,245	1,185	1,151
31	1,145	-----	1,076	1,063	-----	1,044	-----	1,259	-----	1,245	1,183	-----
(†)	5,919.71	5,919.22	5,918.73	5,918.54	5,918.58	5,918.26	5,919.98	5,921.35	5,921.51	5,921.14	5,920.26	5,919.80
(‡)	-21.0	-35.0	-34.0	-13.0	+3.0	-22.0	+120.0	+95.0	+12.0	-26.0	-62.0	-32.0
MAX	1,166	1,144	1,110	1,076	1,066	1,066	1,164	1,259	1,271	1,276	1,244	1,181
MIN	1,145	1,110	1,076	1,059	1,063	1,043	1,045	1,166	1,258	1,245	1,183	1,151

CAL YR 1968..... † +10.0

WTR YR 1969..... † -15.0

† Elevation, in feet, at end of month.

‡ Change in contents, in thousands of acre-feet.

BEAR RIVER BASIN

10-0586. Bloomington Creek at Bloomington, Idaho

LOCATION.--Lat 42°11'05", long 111°25'30", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.21, T.14 S., R.43 E., Bear Lake County, on left bank 1 mile west of Bloomington.

DRAINAGE AREA.--24.4 sq mi.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder 4 ft upstream from 8-ft concrete flume. Altitude of gage is 6,070 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 26.4 cfs (19,130 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 105 cfs May 14 (gage height, 3.23 ft); minimum daily, 13 cfs Mar. 19-27.
Period of record: Maximum discharge, 222 cfs June 13, 1965 (gage height, 4.43 ft); minimum, 9.4 cfs Jan. 27, 1961, Feb. 26; 1962.

REMARKS.--Records good. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	18	16	16	14	15	22	33	51	36	26	22
2	18	18	16	16	14	15	21	36	48	34	25	22
3	18	18	16	15	14	15	20	40	46	34	25	22
4	18	18	16	15	14	15	21	41	44	33	25	22
5	18	17	16	16	14	15	22	44	44	33	25	22
6	18	17	16	16	14	15	21	52	44	33	25	22
7	18	16	16	16	14	15	19	64	44	33	25	21
8	18	17	16	15	14	15	19	70	44	31	24	21
9	18	18	16	15	14	15	20	74	43	31	24	21
10	18	17	16	15	14	15	22	78	46	30	24	22
11	18	18	16	15	14	15	25	82	42	30	24	22
12	18	18	16	15	14	14	25	84	39	30	25	21
13	18	17	16	15	14	14	25	87	38	30	24	21
14	20	16	16	15	14	14	25	92	37	29	23	21
15	19	16	16	15	14	14	26	87	37	28	23	21
16	19	17	16	15	14	14	25	77	52	29	23	21
17	18	17	16	15	14	14	26	78	40	28	23	21
18	18	18	16	15	14	14	26	82	36	27	23	21
19	18	17	16	16	14	13	26	81	35	27	23	21
20	18	17	16	18	14	13	28	78	37	26	22	21
21	18	17	16	18	14	13	30	74	36	26	22	22
22	18	17	16	18	14	13	32	71	34	26	23	21
23	18	17	16	16	14	13	36	69	36	26	23	21
24	18	17	16	16	14	13	36	68	38	26	22	21
25	18	17	16	15	15	13	31	68	41	27	22	21
26	18	16	16	16	15	13	28	67	42	27	23	20
27	18	17	16	15	15	13	26	65	39	26	22	20
28	18	17	16	15	15	14	26	62	41	26	22	20
29	18	16	16	15	-----	14	29	58	39	26	22	20
30	18	16	16	14	-----	16	33	56	37	26	21	20
31	18	-----	16	14	-----	18	-----	54	-----	26	22	-----
TOTAL	562	512	496	481	396	442	771	2,072	1,230	900	725	634
MEAN	18.1	17.1	16.0	15.5	14.1	14.3	25.7	66.8	41.0	29.0	23.4	21.1
MAX	20	18	16	18	15	18	36	92	52	36	26	22
MIN	18	16	16	14	14	13	19	33	34	26	21	20
AC-FT	1,110	1,020	984	954	785	877	1,530	4,110	2,440	1,790	1,440	1,260
CAL YR 1968: TOTAL	8,147		MEAN 22.3		MAX 83		MIN 14		AC-FT 16,160			
WTR YR 1969: TOTAL	9,221		MEAN 25.3		MAX 92		MIN 13		AC-FT 18,290			

BEAR RIVER BASIN

19

10-0595. Bear Lake outlet canal near Paris, Idaho

LOCATION.--Lat 42°13'00", long 111°20'35", in SW¼ sec.8, T.14 S., R.44 E., Bear Lake County, on right bank 2,000 ft downstream from headgates (at dike) and 3 miles southeast of Paris.

PERIOD OF RECORD.--January 1922 to current year. Monthly discharge only January 1922 to September 1945, published in WSP 1314.

GAGE.--Water-stage recorder. Elevation of gage datum is 5,912.6 ft above mean sea level (from topographic survey).

AVERAGE DISCHARGE.--47 years, 339 cfs (245,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,600 cfs July 25 (gage height, 19.13 ft); minimum daily, 5.0 cfs on many days.

Period of record: Maximum daily discharge, 1,870 cfs Aug. 8, 1924; minimum daily, 1 cfs for many days in 1937, 1954, 1959, 1961, 1964.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Discharge measurements generally made six times a week during periods of release from Bear Lake. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	698	704	725	255	740	5.0	5.0	265	10	428	692
2	16	698	698	730	255	759	5.0	5.0	212	10	504	546
3	16	695	712	730	255	768	5.0	5.0	217	10	510	206
4	16	709	712	730	245	715	5.0	5.0	271	10	575	154
5	15	706	701	735	245	738	5.0	5.0	339	10	624	390
6	15	689	686	735	326	774	5.0	5.0	328	10	632	458
7	15	672	689	735	322	871	5.0	5.0	314	10	621	463
8	15	715	695	735	352	849	5.0	5.0	308	10	716	465
9	15	692	692	735	406	834	5.0	5.0	301	10	856	382
10	15	709	695	740	413	852	5.0	5.0	295	10	856	248
11	15	724	704	740	434	849	5.0	5.0	303	255	852	109
12	15	724	698	741	465	789	5.0	5.0	287	770	807	27
13	15	692	657	730	507	795	5.0	5.0	275	1,130	846	26
14	15	701	678	712	545	837	5.0	5.0	281	1,090	831	26
15	15	701	678	720	545	852	5.0	5.0	273	1,190	822	25
16	159	698	657	710	545	877	5.0	5.0	291	1,360	825	24
17	18	704	678	700	604	934	5.0	5.0	291	1,280	825	24
18	308	709	715	710	641	918	5.0	5.0	291	1,370	816	23
19	759	721	738	747	643	874	5.0	5.0	234	1,460	819	22
20	712	721	712	733	666	768	5.0	5.0	137	1,460	813	22
21	704	715	700	544	689	692	5.0	5.0	68	1,430	856	21
22	695	701	685	257	683	701	5.0	5.0	10	1,470	837	20
23	689	689	695	269	675	701	5.0	5.0	10	1,490	825	20
24	240	701	730	263	692	712	5.0	5.0	10	1,560	804	19
25	427	709	733	242	768	677	5.0	5.0	10	1,510	786	19
26	709	695	704	283	741	599	5.0	5.0	10	1,130	777	18
27	718	692	712	283	712	521	5.0	5.0	10	1,040	762	18
28	712	709	714	283	715	431	5.0	5.0	10	818	756	17
29	701	715	717	275	-----	350	5.0	5.0	10	514	750	17
30	695	706	718	260	-----	279	5.0	5.0	10	446	730	17
31	698	-----	721	250	-----	118	-----	116	-----	350	712	-----
TOTAL	9,173	21,110	21,728	17,782	14,344	22,174	150.0	266.0	5,671	23,223	23,173	4,518
MEAN	296	704	701	574	512	715	5.00	8.58	189	749	748	151
MAX	759	724	738	747	768	934	5.0	116	339	1,560	856	692
MIN	15	672	657	242	245	118	5.0	5.0	10	10	428	17
AC-FT	18,190	41,870	43,100	35,270	28,450	43,980	298	528	11,250	46,060	45,960	8,960

CAL YR 1968 : TOTAL 111,001.2 MEAN 303 MAX 1,140 MIN 3.0 AC-FT 220,200
WTR YR 1969 : TOTAL 163,312.0 MEAN 447 MAX 1,560 MIN 5.0 AC-FT 323,900

NOTE.--No gage-height record Apr. 1 to May 30.

LOCATION.--Lat 42°32'15", long 111°34'20", in SE¼ sec.20, T.10 S., R.42 E., Bear Lake County, on right bank just below Wilson Creek, 15 ft downstream from road bridge, 0.3 mile north of Eightmile ranger station, and 8.4 miles south of Soda Springs.

Period of record: Maximum discharge, 144 cfs June 13, 14, 1965 (gage height, 2.57 ft); minimum, 0.98 cfs Mar. 3-5, 10, 20, 21, 1969.

REMARKS.--Records excellent. No diversion above station.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.5	2.3	2.7	2.8	1.7	8.1	39	78	23	9.8	5.7
2	4.0	4.5	2.3	2.5	2.8	1.6	9.4	42	73	23	9.4	5.7
3	4.0	4.5	2.3	2.3	2.7	1.4	12	43	66	23	9.1	5.5
4	4.0	5.0	2.3	2.5	2.5	1.4	12	46	63	23	8.8	5.5
5	3.8	4.3	2.5	2.7	2.5	1.4	15	50	57	22	8.4	5.5
6	3.8	4.3	2.5	2.8	2.5	1.6	17	59	57	22	8.4	5.2
7	4.0	4.0	2.1	2.7	2.5	1.6	15	64	55	23	8.1	5.0
8	3.8	4.0	2.5	2.3	2.1	1.4	13	71	53	20	7.8	5.0
9	3.8	4.5	2.5	2.5	2.3	1.6	12	76	47	20	7.5	5.0
10	3.8	4.3	2.5	2.3	2.5	1.4	13	84	47	20	7.5	5.2
11	3.8	4.0	2.5	2.7	2.3	1.4	15	89	43	19	7.2	5.0
12	3.8	4.0	2.5	2.8	2.3	1.4	15	89	42	18	8.8	5.0
13	4.0	3.6	2.3	2.8	2.1	1.4	17	94	38	18	7.8	5.0
14	5.5	3.0	2.5	3.0	1.9	1.3	18	100	36	17	7.5	5.0
15	5.0	3.0	2.5	3.0	1.9	1.4	18	100	35	18	7.2	5.0
16	4.8	3.2	2.7	2.7	1.9	1.4	19	97	35	17	7.2	4.8
17	4.5	3.2	2.5	2.7	1.7	1.4	21	94	31	16	7.2	4.8
18	4.5	3.2	2.5	2.5	1.8	1.4	23	89	29	15	7.5	4.8
19	4.3	3.4	2.7	2.8	1.8	1.4	24	89	26	15	7.2	4.8
20	4.3	3.2	2.3	3.4	2.1	1.4	26	94	30	14	6.8	4.8
21	4.3	3.0	2.3	4.8	1.9	1.4	32	94	28	14	6.5	5.0
22	4.3	3.2	2.5	6.2	1.9	1.3	39	94	27	13	6.5	4.5
23	4.3	3.2	2.7	4.3	1.8	1.2	50	91	26	13	6.2	4.3
24	4.3	3.2	2.8	3.6	1.8	1.2	55	91	28	13	6.2	4.3
25	4.3	3.0	2.8	3.8	1.7	1.2	47	94	29	12	6.0	4.3
26	4.3	2.5	2.7	3.8	1.8	1.4	43	91	29	12	6.0	4.0
27	4.3	2.8	2.7	3.4	1.6	1.8	38	89	26	12	6.2	3.8
28	4.3	2.7	2.5	3.0	1.6	1.9	36	91	27	11	6.2	3.8
29	4.3	2.1	2.8	2.8	-----	2.8	36	86	26	11	6.5	3.8
30	4.5	2.3	2.3	2.5	-----	4.3	38	84	24	11	6.5	3.8
31	4.5	-----	2.5	2.8	-----	6.5	-----	81	-----	11	6.2	-----
TOTAL	131.5	105.7	77.4	94.7	59.1	54.0	736.5	2,495	1,211	519	228.2	143.9
MEAN	4.24	3.52	2.50	3.05	2.11	1.74	24.6	80.5	40.4	16.7	7.36	4.80
MAX	5.5	5.0	2.8	6.2	2.8	6.5	55	100	78	23	9.8	5.7
MIN	3.8	2.1	2.1	2.3	1.6	1.2	8.1	39	24	11	6.0	3.8
AC-FT	261	210	154	188	117	107	1,460	4,950	2,400	1,030	453	285
WAL YR 1968; TOTAL	4,475.8			MEAN 12.2	MAX 76	MIN 2.1	AC-FT 8,880					
CAL YR 1969; TOTAL	5,856.0			MEAN 16.0								

BEAR RIVER BASIN

21

10-0750. Bear River at Soda Springs, Idaho

LOCATION.--Lat 42°36'50", long 111°34'58", in NW¼SW¼NW¼ sec.29, T.9 S., R.42 E., Caribou County, on left bank 800 ft upstream from Bailey Creek road bridge and 2 miles south of Soda Springs.

DRAINAGE AREA.--3,970 sq mi, approximately.

PERIOD OF RECORD.--May to September 1896, May, June 1898, and October 1953 to current year in reports of Geological Survey. Irrigation season only during 1944-49, 1951-53 in reports of Bear River Hydrometric Data (Geological Survey open-file report).

GAGE.--Water-stage recorder. Altitude of gage is 5,760 ft (from topographic map). May 25 to Oct. 2, 1896, May 22 to July 1, 1898, nonrecording gage at different datum. During irrigation season 1944-49, 1950-53, water-stage recorder at site 800 ft downstream at different datum.

AVERAGE DISCHARGE.--16 years, 532 cfs (385,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,610 cfs July 25 (gage height, 4.89 ft); minimum daily, 121 cfs Oct. 7, Sept. 20.

Period of record: Maximum discharge, 6,380 cfs June 9, 15, 1896 (gage height, 8.40 ft, datum then in use); minimum daily, 60 cfs Dec. 6, 1960.

REMARKS.--Records good except those for winter period, which are fair. Many diversions for irrigation above station. Flow regulated by storage in Bear Lake. (See sta 10-0555.)

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	817	901	690	435	890	532	532	383	479	500	778
2	132	824	866	730	440	905	521	505	532	479	516	764
3	130	831	873	815	445	910	689	500	474	538	600	659
4	130	852	943	895	435	920	873	510	448	538	606	401
5	125	852	859	940	440	930	1,050	516	463	505	647	241
6	125	859	859	955	445	950	1,120	532	538	494	695	448
7	121	859	880	945	450	965	978	543	548	516	695	538
8	130	859	908	920	475	990	887	554	538	494	689	554
9	137	887	908	880	505	1,010	866	560	532	484	778	548
10	137	873	908	855	525	1,020	901	554	538	448	894	512
11	137	887	838	855	555	1,030	901	565	582	396	908	396
12	132	901	845	900	585	1,030	852	571	548	521	922	300
13	132	894	831	935	620	1,040	804	565	548	1,020	901	191
14	144	866	784	960	650	1,060	752	560	532	1,320	894	152
15	154	866	775	965	670	1,070	708	565	526	1,310	887	144
16	152	873	780	940	680	1,100	683	600	510	1,380	880	140
17	174	880	790	910	710	1,140	665	653	538	1,460	887	132
18	225	873	775	990	730	1,160	647	635	582	1,440	887	132
19	255	880	725	1,090	750	1,160	611	635	629	1,500	887	123
20	764	887	650	1,130	775	1,130	588	623	629	1,540	866	121
21	784	887	620	1,080	795	1,080	577	665	543	1,530	880	134
22	790	880	640	980	805	1,020	571	565	538	1,520	894	132
23	790	873	680	785	810	960	577	548	510	1,510	894	130
24	790	873	755	610	820	935	600	494	565	1,540	880	130
25	554	873	845	475	835	920	611	458	623	1,590	866	125
26	443	859	890	445	845	905	611	468	582	1,540	859	128
27	804	901	900	465	865	890	600	516	548	1,290	845	125
28	838	866	845	460	880	824	588	463	526	1,170	831	123
29	831	908	750	435	-----	778	560	415	510	922	810	123
30	810	901	680	435	-----	635	538	378	494	695	797	125
31	810	-----	675	440	-----	571	-----	370	-----	594	778	-----
TOTAL	11,812	26,141	24,978	24,910	17,975	29,928	21,461	16,618	16,057	30,763	24,873	8,549
MEAN	381	871	806	804	642	965	715	536	535	992	802	285
MAX	838	908	943	1,130	880	1,160	1,120	665	629	1,590	922	778
MIN	121	817	620	435	435	571	521	370	383	396	500	121
AC-FT	23,430	51,850	49,540	49,410	35,650	59,360	42,570	32,960	31,850	61,020	49,330	16,960
CAL YR 1968: TOTAL	190,883			MEAN 522	MAX 1,340	MIN 105	AC-FT 378,600					
WTR YR 1969: TOTAL	254,065			MEAN 696	MAX 1,590	MIN 121	AC-FT 503,900					

BEAR RIVER BASIN

10-0764. Soda Creek at Fivemile Meadows, near Soda Springs, Idaho

LOCATION.--Lat 42°43'45", long 111°36'55", in SE¼NW¼ sec.13, T.8 S., R.41 E., Caribou County, on right bank 100 ft southeast of Lau ranchhouse, 150 ft downstream from Schmidt ditch, and 5 miles north of Soda Springs.

DRAINAGE AREA.--49 sq mi, approximately.

PERIOD OF RECORD.--October 1964 to current year. April 1923 to October 1926 at this site published as "at Lau ranch;" records not equivalent owing to diversion in Schmidt ditch during irrigation season.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,980 ft (from topographic map). April 1923 to October 1926 at different datum and Oct. 1, 1964, to Aug. 26, 1965, at site 400 ft upstream at different datum.

AVERAGE DISCHARGE.--5 years (1964-69), 13.1 cfs (4,740 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 90 cfs Apr. 3 (gage height, 2.13 ft); minimum, 0.32 cfs Dec. 28. Period of record: Maximum discharge, 98 cfs Apr. 2, 1965 (gage height, 4.01 ft, site and datum then in use); no flow Dec. 24, 1966.

REMARKS.--Records good except those for winter months, which are fair. Records herein include flow of Schmidt ditch.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	10	10	10	10	8.0	76	26	20	21	16	12
2	11	10	10	11	10	8.0	80	26	20	23	16	12
3	11	11	10	11	10	8.0	82	26	20	21	16	12
4	11	11	10	11	10	8.0	63	26	20	21	16	12
5	11	11	10	10	10	8.0	47	26	20	21	16	12
6	11	11	10	10	9.0	8.0	38	26	20	21	16	12
7	11	10	10	10	9.0	8.0	33	25	20	22	15	12
8	11	10	10	10	9.0	8.0	32	25	20	22	15	12
9	11	11	10	10	9.0	8.0	34	25	20	21	14	12
10	11	11	10	10	9.0	8.0	33	25	21	21	14	13
11	11	11	10	10	9.0	4.0	29	25	22	21	14	13
12	11	12	10	10	9.0	8.0	28	25	21	21	15	13
13	11	11	10	10	9.0	8.0	27	25	21	21	15	13
14	11	11	10	10	9.0	8.0	26	25	21	20	15	12
15	11	11	10	10	9.0	8.0	26	25	21	21	14	13
16	10	11	10	10	8.0	9.0	25	25	22	21	14	13
17	10	11	10	10	8.0	9.0	25	25	21	21	14	13
18	10	11	10	10	8.0	9.0	26	25	21	20	14	12
19	10	10	10	11	8.0	9.0	26	25	21	20	15	12
20	10	10	10	13	8.0	9.0	25	25	22	19	15	13
21	10	11	9.7	17	8.0	9.4	25	24	22	19	14	13
22	10	11	9.4	20	8.0	10	25	23	22	19	14	12
23	10	11	9.2	25	8.0	9.7	26	22	22	19	14	12
24	10	11	9.4	17	8.0	8.7	26	22	23	19	13	12
25	10	11	9.7	13	8.0	15	26	22	24	19	13	12
26	10	11	10	11	8.0	13	26	21	23	18	13	12
27	10	10	8.9	20	8.0	14	26	21	23	18	13	12
28	10	10	3.2	19	8.0	18	26	21	22	18	13	12
29	10	10	1.2	16	-----	26	26	21	21	18	13	12
30	11	10	6.9	11	-----	43	26	20	21	18	13	12
31	11	-----	9.0	10	-----	66	-----	21	-----	17	12	-----
TOTAL	327	321	286.6	386	244.0	393.8	1,039	744	637	621	444	369
MEAN	10.5	10.7	9.25	12.5	8.71	12.7	34.6	24.0	21.2	20.0	14.3	12.3
MAX	11	12	10	25	10	66	82	26	24	23	16	13
MIN	10	10	1.2	10	8.0	4.0	25	20	20	17	12	12
AC-FT	649	637	568	766	484	781	2,060	1,480	1,260	1,230	881	732
CAL YR 1968 : TOTAL	3,584.3		MEAN 9.79		MAX 23		MIN 1.2		AC-FT 7,110			
WTR YR 1969 : TOTAL	5,812.4		MEAN 15.9		MAX 82		MIN 1.2		AC-FT 11,530			

BEAR RIVER BASIN

23

10-0795. Bear River at Alexander, Idaho

LOCATION.--Lat 42°38'42", long 111°41'51", in NE¼SW¼NW¼ sec.17, T.9 S., R.41 E., Caribou County, on right bank 600 ft downstream from Soda hydroelectric plant of Utah Power & Light Co., 0.5 mile southeast of Alexander and 5 miles downstream from Soda Creek.

DRAINAGE AREA.--4,050 sq mi, approximately.

PERIOD OF RECORD.--March 1911 to current year. Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 5,650 ft (from topographic map).

AVERAGE DISCHARGE.--58 years, 747 cfs (541,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,630 cfs July 20 (gage height, 3.65 ft); minimum, 30 cfs Apr. 20. Period of record: Maximum discharge observed, 4,740 cfs Mar. 31, 1911; maximum gage height, 15.95 ft Dec. 11, 1919 (backwater from ice); minimum discharge, 28 cfs at times when reservoir gates were closed.

REMARKS.--Records good. Flow regulated by Bear Lake Reservoir (see sta 10-0555) and Soda hydroelectric plant. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	931	964	618	561	1,070	917	666	531	574	789	501
2	177	931	956	872	556	1,070	796	604	531	527	671	810
3	181	931	931	985	565	1,060	961	580	531	437	536	808
4	156	931	879	1,010	573	1,070	1,110	474	519	531	591	797
5	166	972	939	983	784	1,190	1,200	648	531	535	565	814
6	163	996	939	1,010	833	1,200	1,200	552	531	562	506	799
7	180	988	947	1,010	578	1,190	1,210	691	531	477	721	260
8	164	886	956	1,020	639	1,200	1,200	705	537	491	730	282
9	191	980	939	1,020	562	1,160	996	716	467	510	773	278
10	208	988	939	1,010	647	1,090	1,070	624	525	777	787	286
11	212	988	1,000	905	738	1,150	1,070	511	501	805	1,020	291
12	212	996	999	958	779	1,150	1,020	633	450	1,060	899	273
13	208	996	840	1,020	676	1,140	988	638	484	1,320	996	250
14	212	988	792	1,010	712	1,120	946	637	495	1,350	996	264
15	208	988	773	1,020	807	1,150	866	607	501	1,420	1,120	268
16	252	964	947	1,040	820	1,150	851	506	490	1,430	1,180	273
17	258	947	988	1,040	835	1,200	740	493	472	1,430	974	255
18	517	956	892	1,020	825	1,200	651	395	472	1,540	876	278
19	734	972	813	1,020	876	1,200	644	496	472	1,580	884	296
20	748	964	823	1,130	912	1,200	56	556	478	1,590	814	310
21	755	988	748	1,470	919	1,190	721	567	613	1,460	876	315
22	792	980	573	1,330	850	1,200	552	501	556	1,470	899	315
23	830	996	654	1,060	872	1,180	419	549	522	1,470	892	320
24	766	988	887	1,010	928	1,110	403	555	568	1,370	892	320
25	620	988	988	726	996	1,080	428	561	631	1,090	892	325
26	446	972	1,010	624	1,130	1,020	490	574	778	1,160	889	325
27	530	855	1,030	635	1,180	1,120	753	580	592	1,060	853	329
28	868	900	1,020	525	1,130	933	743	592	567	792	789	339
29	907	934	1,020	530	-----	931	738	586	580	868	784	334
30	931	947	784	453	-----	957	459	549	567	719	814	339
31	931	-----	611	539	-----	977	-----	555	-----	691	696	-----
TOTAL	13,700	28,841	27,581	28,603	22,283	34,658	24,198	17,901	16,023	31,096	25,704	11,654
MEAN	442	961	890	923	796	1,118	807	577	534	1,003	829	388
MAX	931	996	1,030	1,470	1,180	1,200	1,210	716	778	1,590	1,180	814
MIN	156	855	573	453	556	931	56	395	450	437	506	250
AC-FT	27,170	57,210	54,710	56,730	44,200	68,740	48,000	35,510	31,780	61,680	50,980	23,120
CAL YR 1968: TOTAL	212,041			MEAN 579	MAX 1,390	MIN 81	AC-FT 420,600					
WTR YR 1969: TOTAL	282,242			MEAN 773	MAX 1,590	MIN 56	AC-FT 559,800					

BEAR RIVER BASIN

10-0845. Cottonwood Creek near Cleveland, Idaho

LOCATION.--Lat 42°19'57", long 111°46'27", in SW¼ sec.34, T.12 S., R.40 E., Franklin County, on right bank 500 ft upstream from Cleveland irrigation canal, 2.5 miles west of Cleveland, and 4 miles downstream from proposed Cottonwood Dam.

DRAINAGE AREA.--61.7 sq mi.

PERIOD OF RECORD.--November 1938 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,150 ft (from topographic map). Prior to Dec. 29, 1944, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--30 years (1939-69), 29.4 cfs (21,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 396 cfs Apr. 23 (gage height, 3.47 ft); minimum daily, 3.2 cfs Sept. 8.

Period of record: Maximum discharge, 773 cfs Apr. 27, 1952 (gage height, 3.83 ft); minimum, 0.1 cfs Aug. 11, 1961.

REMARKS.--Records good. A few small diversions for irrigation of meadowland in Cottonwood Valley above station. Treasureton Canal diverts from Cottonwood Creek 10.1 miles above station in SE¼ sec.8, T.12 S., R.39 E., for irrigation in Battle Creek basin in vicinity of Treasureton.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	9.9	7.1	13	19	16	117	175	25	13	7.1	3.4
2	5.2	9.9	6.8	14	18	16	156	178	23	12	6.8	3.6
3	4.9	9.9	7.1	14	16	16	205	190	20	10	6.6	3.6
4	4.9	12	7.4	14	15	17	219	188	19	9.9	6.6	3.8
5	4.9	11	8.3	14	13	18	258	190	16	10	6.0	3.6
6	4.9	10	9.1	14	14	19	290	202	16	9.9	6.0	3.6
7	4.9	9.9	9.1	13	15	18	202	200	17	11	5.7	3.4
8	5.2	9.9	9.9	12	15	16	158	188	30	10	5.7	3.2
9	5.2	13	10	12	16	16	153	173	30	9.9	6.0	3.4
10	5.2	14	10	11	18	16	188	163	18	9.1	5.0	3.8
11	5.2	13	11	11	20	16	219	153	21	8.7	5.0	3.8
12	4.9	12	12	12	21	16	216	143	16	8.7	5.0	3.8
13	4.9	11	12	13	21	16	248	136	15	8.7	5.0	4.3
14	7.1	8.0	12	16	19	17	222	119	14	8.7	5.0	4.0
15	9.1	10	13	17	21	17	216	110	13	11	4.9	4.7
16	7.1	10	14	15	21	18	213	95	15	11	4.9	4.9
17	6.6	11	15	14	19	18	242	84	14	9.5	4.9	4.5
18	6.3	12	15	17	16	19	258	76	13	8.7	5.7	4.5
19	6.0	14	15	16	20	21	225	72	13	8.3	5.7	4.5
20	6.0	13	14	25	20	19	239	66	13	8.3	5.4	4.7
21	6.3	12	13	56	19	21	274	60	16	8.7	4.9	5.4
22	9.9	15	13	78	17	21	310	54	15	11	4.5	5.4
23	10	12	14	44	19	22	342	49	13	10	4.5	5.4
24	10	12	14	40	19	21	328	46	24	10	4.5	5.0
25	9.9	12	14	38	20	20	242	56	25	15	4.7	5.0
26	9.9	7.1	14	38	19	22	200	54	25	13	4.9	5.0
27	9.9	8.7	14	35	16	26	168	36	20	9.9	4.9	5.0
28	9.9	8.3	14	31	16	31	166	34	17	6.8	4.3	5.0
29	9.9	5.7	13	26	-----	40	182	32	17	6.8	4.0	5.0
30	9.9	6.8	13	23	-----	60	182	28	15	7.7	3.6	5.0
31	10	-----	13	19	-----	89	-----	28	-----	7.1	3.6	-----
TOTAL	219.3	323.1	366.8	715	502	718	6,638	3,378	548	302.4	161.4	130.3
MEAN	7.07	10.8	11.8	23.1	17.9	23.2	221	109	18.3	9.75	5.21	4.34
MAX	10	15	15	78	21	89	342	202	30	15	7.1	5.4
MIN	4.9	5.7	6.8	11	13	16	117	28	13	6.8	3.6	3.2
AC-FT	435	641	728	1,420	996	1,420	13,170	6,700	1,090	600	320	258
CAL YR 1968: TOTAL	9,659.4			MEAN 26.4		MAX 166		MIN 4.5		AC-FT 19,160		
WTR YR 1969: TOTAL	14,002.3			MEAN 38.4		MAX 342		MIN 3.2		AC-FT 27,770		

BEAR RIVER BASIN

25

10-0865. Bear River below Utah Power & Light Co.'s tailrace, at Oneida, Idaho

LOCATION.--Lat 42°16'00", long 111°45'04", in NE¼SE¼NW¼ sec.26, T.13 S., R.40 E., Franklin County, on right bank 200 ft downstream from tailrace of Oneida plant and 6 miles south of Cleveland.

DRAINAGE AREA.--4,400 sq mi, approximately.

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only October 1921 to September 1945, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft (from topographic map).

AVERAGE DISCHARGE.--48 years, 784 cfs (568,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,800 cfs July 26; minimum, 29 cfs Apr. 18.

Period of record: Maximum daily discharge, 5,480 cfs May 8, 1922; minimum daily, 10 cfs Dec. 6, 1964.

REMARKS.--Records good. Many diversions above station. Flow regulated by Bear Lake (see sta 10-0555) and Soda, Grace, and Oneida hydroelectric plants.

COOPERATION.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	447	1,130	1,050	501	821	1,310	1,500	831	202	689	633	639
2	249	947	1,170	1,040	630	1,390	1,420	1,180	231	745	705	598
3	351	778	973	1,370	676	1,220	1,450	1,050	268	539	688	586
4	378	1,050	1,060	1,150	923	1,360	1,660	1,160	280	384	431	892
5	243	952	1,180	1,120	741	1,060	1,880	880	369	616	216	651
6	323	1,240	1,180	1,260	1,150	1,670	1,950	1,150	297	476	510	653
7	320	1,210	1,140	1,220	933	1,220	2,030	1,060	279	463	464	310
8	415	1,100	1,150	1,280	889	1,320	1,610	1,190	304	351	904	655
9	345	1,100	1,200	1,180	769	1,270	1,780	1,080	345	434	660	271
10	313	1,170	1,140	1,100	767	1,330	1,500	1,120	334	670	562	260
11	448	1,120	1,040	1,420	771	1,230	1,710	901	519	880	837	460
12	413	1,190	1,220	927	1,250	1,240	1,460	865	194	1,080	1,230	302
13	417	1,140	1,200	1,090	1,100	1,270	1,680	891	373	1,000	963	303
14	385	1,060	929	1,340	555	1,260	1,430	1,010	379	1,270	962	304
15	369	1,260	998	1,350	834	1,280	1,360	759	383	1,050	1,000	320
16	390	1,150	1,120	1,240	984	1,350	1,290	694	409	1,450	813	322
17	423	1,030	1,150	1,120	849	1,330	1,320	772	260	1,490	312	306
18	654	1,070	1,260	1,160	995	1,280	1,270	430	328	1,400	849	309
19	842	1,020	904	1,120	1,020	1,430	1,130	440	403	886	988	340
20	934	1,200	1,010	1,580	1,080	1,360	971	541	409	965	888	320
21	951	1,110	1,030	1,880	1,060	1,400	709	158	392	1,160	884	297
22	942	1,370	995	2,040	1,140	1,290	1,300	666	715	1,210	766	319
23	973	1,030	631	1,670	1,000	1,460	1,230	398	546	1,260	946	321
24	959	1,420	1,010	1,060	1,150	1,100	1,160	391	738	1,150	619	290
25	945	1,010	1,150	1,100	1,220	1,500	1,050	309	772	1,250	1,070	312
26	708	967	1,240	1,050	1,530	1,090	1,050	432	616	746	974	314
27	628	1,120	1,140	605	882	1,390	987	354	806	941	792	336
28	977	996	1,250	984	1,590	1,260	1,080	366	733	940	721	288
29	1,010	1,110	1,210	741	-----	1,190	1,230	220	806	659	832	434
30	1,200	1,170	1,050	485	-----	1,530	1,340	297	506	737	883	356
31	1,180	-----	794	690	-----	1,550	-----	436	-----	469	493	-----
TOTAL	19,132	33,220	33,574	35,873	27,309	40,940	41,537	22,031	13,196	27,360	23,595	12,068
MEAN	617	1,107	1,083	1,157	975	1,321	1,385	711	440	883	761	402
MAX	1,200	1,420	1,260	2,040	1,590	1,670	2,030	1,190	806	1,490	1,230	892
MIN	243	778	631	485	555	1,060	709	158	194	351	216	260
AC-FT	37,950	65,890	66,590	71,150	54,170	81,200	82,390	43,700	26,170	54,270	46,800	23,940
CAL YR 1968: TOTAL	253,758		MEAN 693		MAX 1,660		MIN 141		AC-FT 503,300			
WTR YR 1969: TOTAL	329,835		MEAN 904		MAX 2,040		MIN 158		AC-FT 654,200			

BEAR RIVER BASIN

10-0905. Bear River near Preston, Idaho

LOCATION.--Lat 42°10'05", long 111°50'59", in NW¼ sec.36, T.14 S., R.39 E., Franklin County, on left bank 600 ft downstream from headgates of West Cache Canal, 5 miles downstream from Mink Creek, 5 miles north of Preston, and 5.5 miles upstream from Battle Creek.

DRAINAGE AREA.--4,500 sq mi, approximately.

PERIOD OF RECORD.--October 1889 to December 1916, January to September 1917 (gage heights only), October 1943 to current year. Prior to 1903, published as "at Battlecreek." Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder. Altitude of gage is 4,540 ft (from topographic map). October 1889 to September 1917 nonrecording gages at several sites within 5 miles downstream at different datums.

AVERAGE DISCHARGE.--26 years (1943-69), 791 cfs (573,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,080 cfs Apr. 6 (gage height, 4.70 ft); minimum, 1.6 cfs Aug. 6 (gage height, 0.20 ft); minimum daily, 66 cfs Sept. 9.

Period of record: (1889-1917), Maximum discharge, about 8,500 cfs June 9, 10, 1907, estimated on basis of records for station near Collinston, Utah; maximum gage height observed, 9.04 ft Jan. 17, 18, 1917 (backwater from ice), site and datum then in use; minimum discharge not determined; (1943-69), Maximum discharge, 4,420 cfs Apr. 17, 1950 (gage height, 5.61 ft); minimum, 0.6 cfs June 14, 1949; minimum daily, 2.0 cfs May 11, 1968.

REMARKS.--Records good. Station is below all irrigation diversions from Bear River in Idaho except Cub River pumps in SE¼ sec.20, T.16 S., R.39 E. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	429	1,200	1,090	669	1,020	1,480	1,580	837	158	637	510	420
2	246	783	1,200	1,010	836	1,560	1,740	1,320	138	716	332	550
3	245	781	1,080	1,310	694	1,080	1,560	1,070	143	464	469	453
4	362	1,160	971	1,180	810	1,370	1,860	1,370	176	260	271	578
5	229	788	776	1,160	696	1,180	2,140	937	151	458	128	446
6	372	1,140	1,220	1,310	1,220	1,900	2,180	1,220	126	319	260	809
7	247	1,210	1,210	1,280	1,030	1,290	2,330	1,120	148	251	223	349
8	402	1,100	1,180	1,270	1,010	1,360	1,840	1,240	122	226	458	193
9	343	1,040	1,160	1,190	972	1,410	1,950	1,270	104	233	485	66
10	334	1,120	1,190	1,030	792	1,470	1,670	1,250	95	365	432	143
11	363	1,230	1,000	1,550	854	1,260	1,810	1,030	118	672	505	168
12	385	1,170	1,250	792	1,350	1,370	1,700	1,010	112	789	1,040	196
13	418	1,050	1,320	1,250	1,090	1,460	1,830	979	128	738	840	163
14	387	971	915	1,340	791	1,190	1,580	1,080	77	880	562	188
15	384	1,270	1,050	1,490	957	1,420	1,480	818	133	822	911	168
16	441	1,120	1,180	1,350	1,080	1,420	1,310	894	226	1,120	638	251
17	300	1,030	1,120	1,190	953	1,510	1,440	744	179	1,250	190	237
18	704	1,090	1,280	1,240	1,080	1,370	1,500	583	174	1,170	674	225
19	712	993	1,020	1,220	1,090	1,540	1,210	535	207	703	847	229
20	915	1,240	1,030	1,730	1,280	1,410	1,030	654	161	716	682	249
21	953	1,020	1,090	2,050	1,110	1,480	855	173	325	727	743	263
22	1,010	1,440	967	2,290	1,260	1,310	1,320	747	459	1,030	575	263
23	938	1,020	744	1,960	1,190	1,600	1,510	421	502	912	777	261
24	991	1,420	1,030	1,280	1,120	1,110	1,310	427	546	1,110	428	203
25	907	1,080	1,070	1,220	1,240	1,600	1,090	410	631	864	890	234
26	685	928	1,310	1,190	1,610	935	1,350	383	650	426	825	268
27	643	1,200	1,190	735	940	1,570	1,300	224	669	797	623	280
28	922	1,110	1,120	1,110	1,690	1,380	1,180	304	722	792	553	207
29	979	1,150	1,400	816	-----	1,580	1,260	174	724	337	720	370
30	1,020	1,140	1,100	459	-----	1,560	1,590	183	336	497	766	136
31	1,300	-----	708	734	-----	1,860	-----	267	-----	211	443	-----
TOTAL	18,566	32,994	33,971	38,405	29,765	44,035	46,505	23,694	8,440	20,492	17,800	8,566
MEAN	599	1,100	1,096	1,239	1,063	1,420	1,550	764	281	661	574	286
MAX	1,300	1,440	1,400	2,290	1,690	1,900	2,330	1,370	724	1,250	1,040	809
MIN	229	781	708	459	694	935	855	173	77	211	128	66
AC-FT	36,830	65,440	67,380	76,180	59,040	87,340	92,240	47,000	16,740	40,650	35,310	16,990
CAL YR 1968: TOTAL	238,208.0											
WTR YR 1969: TOTAL	323,233											
	MEAN 651			MAX 1,630			MIN 2.0			AC-FT 472,500		
	MEAN 886			MAX 2,330			MIN 66			AC-FT 641,100		

BEAR RIVER BASIN

27

10-0912. Deep Creek near Clifton, Idaho

LOCATION.--Lat 42°12'00", long 111°59'05", in SE¼SW¼ sec.14, T.14 S., R.38 E., Franklin County, on right bank 40 ft above county road culvert, and 1.3 miles northeast of Clifton.

DRAINAGE AREA.--119 sq mi, approximately.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder and road culvert for medium and high stages. Altitude of gage is 4,705 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 152 cfs Mar. 31 (gage height, 6.80 ft, from high water mark on outside of well); minimum, 1.2 cfs Sept. 22.

Period of record: Maximum discharge, 152 cfs Mar. 31, 1969 (gage height, 6.80 ft, from high-water mark on outside of well); minimum, 0.57 cfs Nov. 26, 27, 1966.

REMARKS.--Records good except those for winter months, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.1	4.5	2.6	17	15	130	30	7.4	6.5	5.5	2.0
2	2.0	2.1	4.5	3.2	18	15	119	30	7.1	6.5	3.9	2.3
3	1.9	2.1	4.5	4.7	16	15	117	29	7.0	5.6	3.0	2.2
4	2.0	2.3	4.5	4.8	15	15	106	28	7.0	4.8	2.4	1.9
5	1.9	2.4	4.5	4.8	14	15	97	27	7.6	5.2	3.4	1.7
6	1.7	2.2	4.5	4.9	14	15	90	24	8.3	5.3	4.0	2.5
7	1.7	2.1	4.5	7.0	14	15	96	21	8.5	5.5	2.2	1.7
8	1.7	2.2	4.5	7.4	16	15	95	20	5.8	6.8	2.2	1.4
9	1.8	2.4	4.5	5.5	17	15	88	18	5.2	7.6	3.2	1.5
10	1.8	2.4	4.5	4.8	16	15	83	17	5.6	5.5	3.1	2.3
11	1.8	2.4	4.5	5.2	16	15	79	15	7.6	4.8	3.0	1.6
12	1.9	2.4	4.5	5.5	18	15	72	15	11	4.8	4.1	1.5
13	1.9	2.5	4.5	6.6	16	15	69	15	12	4.5	2.7	1.5
14	2.4	3.0	4.5	13	16	15	66	14	9.0	3.4	2.3	1.5
15	2.7	2.5	4.5	13	16	15	64	13	12	3.6	1.5	1.5
16	2.4	2.4	4.0	22	16	15	57	12	14	4.9	1.7	2.0
17	2.2	2.6	4.0	14	16	15	51	12	8.2	3.5	2.4	2.0
18	2.2	3.0	4.0	11	16	16	51	12	6.8	3.4	2.2	2.1
19	2.1	3.4	4.0	15	16	17	47	15	6.5	3.5	1.9	1.7
20	2.0	3.6	4.0	28	15	23	45	12	8.3	4.4	4.9	1.4
21	2.0	3.6	4.0	40	15	23	44	11	11	2.5	5.3	1.3
22	2.0	3.5	4.0	57	15	26	42	10	10	2.4	3.4	1.3
23	2.0	3.4	4.3	35	15	27	37	9.8	11	2.3	3.4	1.3
24	2.0	3.4	4.1	31	14	32	42	10	12	2.3	2.5	1.5
25	1.9	3.7	4.7	27	18	39	41	12	12	2.8	2.2	1.4
26	1.8	4.5	4.8	36	15	50	39	10	11	2.5	1.9	1.4
27	1.7	4.5	4.8	38	15	62	36	8.2	9.1	2.6	3.1	1.5
28	1.8	4.5	3.5	36	15	76	33	7.2	8.5	3.5	4.1	1.5
29	1.8	4.5	2.6	24	-----	100	33	7.6	8.6	5.6	1.7	2.4
30	1.9	4.5	2.6	26	-----	125	32	7.2	8.3	15	1.7	2.4
31	2.0	-----	2.4	20	-----	150	-----	8.2	-----	7.8	1.6	-----
TOTAL	61.4	90.2	129.3	553.0	440	1,021	2,001	480.2	266.4	149.4	90.5	52.3
MEAN	1.98	3.01	4.17	17.8	15.7	32.9	66.7	15.5	8.88	4.82	2.52	1.74
MAX	2.7	4.5	4.8	57	18	150	130	30	14	15	5.5	2.5
MIN	1.7	2.1	2.4	2.6	14	15	32	7.2	5.2	2.3	1.5	1.3
AC-FT	122	179	256	1,100	873	2,030	3,970	952	528	296	180	104
CAL YR 1968; TOTAL	3,194.3			MEAN	8.73	MAX	60	MIN	1.6	AC-FT	6,340	
WTR YR 1969; TOTAL	5,334.7			MEAN	14.6	MAX	150	MIN	1.3	AC-FT	10,580	

NOTE.--No gage-height record Mar. 26 to Apr. 1.

BEAR RIVER BASIN

10-0930. Cub River near Preston, Idaho

LOCATION.--Lat 42°08'28", long 111°41'19", in SW¼ sec.5, T.15 S., R.41 E., Franklin County, on right bank 0.2 mile upstream from headgates of Cub River-Worm Creek Canal, 0.7 mile upstream from forest boundary, and 10 miles east of Preston.

DRAINAGE AREA.--19.4 sq mi.

PERIOD OF RECORD.--March 1940 to September 1952, October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,320 ft (from topographic map).

AVERAGE DISCHARGE.--26 years, 81.7 cfs (59,190 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 495 cfs May 15 (gage height, 2.69 ft); minimum, 19 cfs Feb. 25. Period of record: Maximum discharge, 715 cfs June 7, 1957 (gage height, 3.39 ft); maximum gage height, 3.83 ft June 2, 1943; no flow for part of Jan. 29, 1965, result of snowslide.

REMARKS.--Records good. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	24	22	21	23	22	72	141	260	125	53	34
2	28	24	22	21	22	21	75	149	235	120	52	34
3	28	24	22	21	22	21	77	172	221	115	51	34
4	28	24	22	21	22	21	72	190	213	110	50	34
5	28	23	22	21	22	21	78	203	213	106	49	32
6	28	23	22	21	22	22	94	241	210	104	45	32
7	28	23	21	21	22	22	86	326	200	103	47	32
8	27	23	22	21	22	21	74	366	195	96	46	32
9	27	24	22	21	21	21	68	388	186	92	45	32
10	27	23	22	20	21	21	68	420	176	89	45	32
11	27	23	22	20	21	21	70	440	161	85	44	31
12	26	23	22	20	21	21	71	445	149	83	44	31
13	27	22	21	20	21	21	72	445	141	81	43	31
14	29	22	21	22	21	21	74	475	139	79	42	31
15	28	22	21	22	21	21	78	485	132	78	41	30
16	26	22	22	22	21	21	77	420	135	77	41	29
17	26	22	21	22	21	21	78	406	130	72	40	29
18	25	22	21	21	21	22	82	430	123	71	40	29
19	25	22	21	22	21	23	81	435	120	69	40	29
20	25	22	21	29	21	23	81	430	123	68	40	29
21	25	22	21	46	21	23	89	402	116	66	39	29
22	25	22	21	45	21	24	108	366	111	65	39	28
23	25	22	21	32	21	26	151	354	108	64	38	28
24	25	22	21	28	22	25	190	350	115	63	38	28
25	25	22	21	26	22	25	168	362	123	62	38	28
26	25	22	21	26	22	26	145	370	125	60	37	28
27	25	22	21	25	21	29	125	370	123	59	36	28
28	25	22	21	24	21	34	113	358	128	57	36	28
29	24	22	21	24	-----	40	115	322	135	57	35	28
30	24	22	21	24	-----	50	133	299	130	55	35	28
31	24	-----	21	23	-----	60	-----	280	-----	54	34	-----
TOTAL	814	677	663	752	600	790	2,865	10,845	4,676	2,485	1,307	908
MEAN	26.3	22.6	21.4	24.3	21.4	25.5	95.5	350	156	80.2	42.2	30.3
MAX	29	24	22	46	23	60	190	485	260	125	53	34
MIN	24	22	21	20	21	21	68	141	108	54	34	28
AC-FT	1,610	1,340	1,320	1,490	1,190	1,570	5,680	21,500	9,270	4,930	2,550	1,800
CAL YR 1968: TOTAL	25,774			MEAN 70.4		MAX 510		MIN 18		AC-FT 51,120		
WTR YR 1969: TOTAL	27,377			MEAN 75.0		MAX 485		MIN 20		AC-FT 54,300		

10-1190. Little Malad River above Elkhorn Reservoir, near Malad City, Idaho

LOCATION.--Lat 42°20'12", long 112°26'22", in NE¼SE¼ sec.35, T.12 S., R.34 E., Oneida County, on left bank 0.8 mile upstream from road crossing, 2 miles downstream from Wright Creek, 2.5 miles downstream from springs, 2.5 miles upstream from Elkhorn Dam, and 14 miles northwest of Malad City.

DRAINAGE AREA.--120 sq mi, approximately.

PERIOD OF RECORD.--August 1911 to August 1913 (published as "near Malad"), October 1931 to September 1932, October 1940 to October 1969 (discontinued). Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder and Cipolletti weir. Altitude of gage is 5,050 ft (by barometer). Prior to Dec. 5, 1940, nonrecording gages at different datums.

AVERAGE DISCHARGE.--31 years (1911-12, 1931-32, 1940-69), 16.8 cfs (12,170 acre-ft per year); 15-year base period (1952-67), 16.2 cfs.

EXTREMES.--Current year: Maximum discharge, 44 cfs June 10-11; maximum gage height, 1.07 ft June 12; minimum, 2.8 cfs Oct. 16-20 (gage height, 0.16 ft).
Period of record: Maximum discharge, 1,450 cfs Feb. 10, 1962 (gage height, 4.85 ft); minimum, 1.4 cfs Oct. 24, 25, 1967.

REMARKS.--Records good. Diversions for irrigation of about 400 acres above station. Some regulation since August 1967 from Daniels Dam 1 mile upstream. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

DISCHARGE, IN CFS, 1969

Day	Oct.	Day	Oct.	Day	Oct.
1	6.5	9	5.7	17	5.7
2	6.5	10	5.7	18	5.4
3	6.2	11	5.7	19	5.1
4	6.2	12	5.7	20	5.1
5	6.2	13	5.7	21	5.1
6	5.7	14	5.7	22	5.1
7	5.7	15	5.4	23	5.1
8	5.7	16	5.7	24	5.1
TOTAL.....					
MEAN.....					
MAX.....					
MIN.....					
AC-FT.....					

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	3.0	4.3	5.1	5.7	6.2	7.5	8.2	41	19	33	30
2	17	3.0	4.3	5.1	5.7	6.2	7.5	8.2	41	24	33	29
3	16	3.0	4.3	5.1	5.9	6.2	7.5	8.2	41	24	33	29
4	16	3.3	4.3	5.1	5.9	6.2	7.8	8.2	41	24	33	29
5	15	3.3	4.3	5.4	5.9	6.2	7.8	8.2	41	25	33	29
6	15	3.5	4.3	5.4	5.9	6.2	7.8	8.2	40	25	33	29
7	15	3.5	4.3	5.4	5.9	6.2	7.8	8.5	40	25	33	29
8	15	3.7	4.3	5.4	5.9	6.2	7.8	8.5	40	25	33	28
9	15	3.7	4.3	5.1	6.2	6.2	7.8	8.5	40	27	33	28
10	14	4.0	4.3	5.4	6.2	6.2	7.8	8.5	41	29	34	28
11	12	4.0	4.3	5.4	6.2	6.2	7.8	15	44	29	39	28
12	11	4.0	4.3	5.4	6.5	6.2	7.8	29	44	30	39	26
13	12	4.0	4.3	5.7	6.5	6.2	7.8	27	44	30	39	22
14	11	4.0	4.3	5.9	6.2	6.2	7.8	28	44	30	39	19
15	10	4.0	4.3	5.7	6.2	6.2	7.8	30	44	30	39	19
16	5.9	3.7	4.3	5.7	6.2	6.2	7.8	31	44	31	39	19
17	2.8	3.7	4.3	5.7	6.2	6.2	7.8	38	44	32	39	19
18	2.8	3.7	4.3	5.7	6.2	6.2	7.8	41	39	32	39	13
19	2.8	3.7	4.3	6.5	6.2	6.5	7.8	41	20	32	38	11
20	3.0	3.7	4.5	7.2	6.2	6.5	7.8	41	20	32	38	6.2
21	3.0	3.7	4.5	12	6.2	6.2	7.8	41	20	32	38	5.9
22	3.0	3.7	4.8	5.4	6.2	6.5	8.2	41	19	32	38	5.9
23	3.0	4.0	4.8	5.4	6.2	6.2	8.5	41	19	32	38	5.9
24	3.0	4.0	5.1	5.4	6.2	6.2	8.5	41	20	32	37	5.9
25	3.0	4.3	5.1	5.4	6.5	6.5	8.5	41	19	32	37	5.9
26	3.0	4.3	5.1	5.7	6.5	7.2	8.5	41	13	32	32	5.9
27	3.0	4.3	5.1	5.7	6.2	7.8	8.2	41	7.2	33	26	5.9
28	3.3	4.3	5.1	5.7	6.2	6.8	8.2	42	7.2	33	26	6.2
29	3.3	4.3	5.1	5.7	-----	7.5	8.2	42	7.2	33	26	6.2
30	3.3	4.3	5.1	5.7	-----	7.5	8.2	42	6.8	33	26	6.2
31	3.0	-----	5.1	5.7	-----	7.5	-----	42	-----	33	28	-----
TOTAL	262.2	113.7	141.1	179.2	172.0	200.5	237.9	859.2	931.4	912	1,071	530.1
MEAN	8.46	3.79	4.55	5.78	6.14	6.47	7.93	27.7	31.0	29.4	34.5	17.7
MAX	17	4.3	5.1	12	6.5	7.8	8.5	42	44	33	39	30
MIN	2.8	3.0	4.3	5.1	5.7	6.2	7.5	8.2	6.8	19	26	5.9
AC-FT	520	226	280	355	341	398	472	1,700	1,850	1,810	2,120	1,050
CAL YR 1968: TOTAL	4,301.4			MEAN 11.8		MAX 35		MIN 2.8		AC-FT 8,530		
WTR YR 1969: TOTAL	5,610.3			MEAN 15.4		MAX 44		MIN 2.8		AC-FT 11,130		

BEAR RIVER BASIN

10-1255. Malad River at Woodruff, Idaho

LOCATION (revised).--Lat 42°01'48", long 112°13'45", in NE¼NE¼ sec.22, T.16 S., R.36 E., Oneida County, at left abutment of highway bridge at Woodruff, 2.1 miles north of Idaho-Utah State line.

DRAINAGE AREA.--485 sq mi, approximately.

PERIOD OF RECORD.--November 1938 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,355 ft (by barometer). Prior to Mar. 6, 1951, nonrecording gage at site 300 ft downstream at datum 0.27 ft lower. Mar. 6, 1951, to Sept. 30, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--30 years (1939-69), 58.3 cfs (42,240 acre-ft per year); 15-year base period (1952-67), 48.7 cfs.

EXTREMES.--Current year: Maximum discharge, 492 cfs Mar. 29 (gage height, 6.22 ft); minimum, 15 cfs many days July, Aug. Sept.

Period of record: Maximum discharge, 2,530 cfs Feb. 12, 1962 (gage height, 8.93 ft); minimum, 1.8 cfs July 14, 1964 (gage height, 1.30 ft).

REMARKS.--Records excellent. Flow regulated by several small reservoirs above station. Diversions above station for irrigation of 25,000 to 30,000 acres. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 6-24)

1.8	15	5.0	246
2.0	23	5.5	315
3.0	94	6.0	424
4.0	163	6.5	560

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	41	51	53	94	129	245	65	19	18	18	17
2	20	41	47	53	88	110	206	58	21	17	18	18
3	20	41	48	54	80	107	178	53	21	16	18	18
4	21	44	48	56	75	102	171	50	20	16	18	17
5	21	47	55	58	73	99	163	50	20	16	18	17
6	21	44	55	63	72	100	153	48	20	16	18	17
7	22	43	55	66	70	98	176	46	20	16	18	17
8	21	41	54	58	71	94	223	42	19	16	18	17
9	21	44	54	61	74	88	220	41	19	16	18	17
10	22	48	53	56	76	83	178	41	19	16	18	17
11	22	48	53	55	79	82	150	39	19	16	18	17
12	22	48	48	53	83	81	141	38	21	16	18	17
13	21	48	47	59	88	80	139	37	21	16	17	17
14	22	48	47	94	86	79	141	37	21	17	17	17
15	26	48	48	148	84	76	140	35	19	16	18	17
16	30	51	55	157	89	78	133	34	18	16	18	17
17	30	54	54	136	86	80	123	35	18	17	17	17
18	32	56	55	104	86	85	115	34	18	17	17	17
19	32	58	49	96	84	97	122	33	18	16	17	17
20	33	58	50	149	82	115	118	33	17	17	17	17
21	32	58	50	222	83	129	108	33	18	17	17	18
22	31	57	48	397	86	138	102	32	18	17	17	17
23	31	55	47	263	87	166	99	26	19	17	17	17
24	34	58	48	230	81	204	92	25	19	17	18	17
25	37	61	51	135	110	232	92	26	19	17	17	17
26	37	60	54	132	158	246	90	25	20	17	17	18
27	37	57	54	166	161	301	86	24	20	17	17	18
28	37	58	52	155	142	419	84	21	20	17	18	18
29	37	54	51	140	-----	468	79	21	19	17	17	18
30	38	54	46	125	-----	392	70	21	19	17	17	18
31	41	-----	53	100	-----	298	-----	19	-----	19	17	-----
TOTAL	871	1,523	1,580	3,694	2,528	4,856	4,137	1,122	579	516	543	518
MEAN	28.1	50.8	51.0	119	90.3	157	138	36.2	19.3	16.6	17.5	17.3
MAX	41	61	55	397	161	468	245	65	21	19	18	18
MIN	20	41	46	53	70	76	70	19	17	16	17	17
AC-FT	1,730	3,020	3,130	7,330	5,010	9,630	8,210	2,230	1,150	1,020	1,080	1,030
CAL YR 1968: TOTAL	17,562			MEAN 48.0	MAX 277	MIN 15	AC-FT 34,830					
WTR YR 1969: TOTAL	22,467			MEAN 61.6	MAX 468	MIN 16	AC-FT 44,560					

UPPER COLUMBIA RIVER BASIN

31

KOOTENAI RIVER BASIN

12-3030. Kootenai River at Libby, Mont.

LOCATION.--Lat 48°24'03", long 115°33'08", in SW¼SE¼SW¼ sec.34, T.31 N., R.31 W., Lincoln County, on right bank 1,800 ft downstream from highway bridge at Libby, 0.8 mile downstream from Libby Creek, and at mile 204.3.

DRAINAGE AREA.--10,240 sq mi, approximately.

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods, published in WSP 1316.

GAGE.--Water-stage recorder. Datum of gage is 2,041.54 ft above mean sea level. Prior to Apr. 28, 1931, non-recording gages at site 1,800 ft upstream at different datum.

AVERAGE DISCHARGE.--59 years, 12,120 cfs (16.07 inches per year, 8,781,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 70,100 cfs June 7 (gage height, 15.07 ft); minimum daily, 2,000 cfs Dec. 29.

Period of record: Maximum discharge, 121,000 cfs June 21, 1916 (gage height, 20.7 ft, present datum, derived from gage-relation study); minimum observed, 895 cfs Jan. 11, 1930 (discharge measurement).

REMARKS.--Records excellent. Diversions for irrigation of about 14,500 acres from tributaries above station in Canada and the United States.

REVISIONS (WATER YEARS).--WSP 1042: 1933. WSP 1246: 1912(M), 1915(M), 1916, 1918-19(M), 1924-27(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,480	7,180	4,870	2,300	2,910	2,890	8,630	25,900	48,900	46,800	13,200	6,800
2	8,240	7,090	4,730	2,400	3,000	2,970	9,200	24,200	45,000	43,700	12,600	6,540
3	7,910	6,950	4,690	2,500	3,120	2,890	9,560	22,900	46,500	41,500	12,200	6,290
4	7,670	6,740	4,890	2,600	3,220	3,050	9,770	22,000	53,600	40,800	11,900	6,180
5	7,470	6,540	4,940	2,700	3,290	3,110	9,740	21,400	61,200	40,600	11,500	6,090
6	7,320	6,370	4,510	2,900	3,050	3,160	10,900	21,700	66,100	39,000	11,300	6,180
7	7,240	6,180	3,740	3,100	3,050	3,170	13,200	24,000	69,500	36,900	11,200	6,120
8	7,090	5,980	3,720	3,900	3,020	3,160	14,500	27,500	67,600	34,700	10,900	5,950
9	6,920	5,820	4,060	4,730	2,970	3,090	14,700	30,600	60,200	32,400	10,500	5,820
10	6,740	5,660	4,340	4,820	2,970	3,020	15,500	35,900	52,800	30,600	10,200	5,630
11	6,740	5,630	4,640	4,800	2,940	3,000	16,400	43,500	51,000	29,300	9,890	5,530
12	6,950	5,950	4,980	4,490	2,990	3,000	17,000	51,100	50,800	28,600	9,710	5,500
13	7,290	6,340	4,850	4,280	3,000	3,050	17,600	57,500	48,900	28,100	9,560	5,580
14	7,470	6,340	4,260	4,120	3,020	3,110	18,400	60,900	44,700	26,100	9,440	5,480
15	7,350	6,040	4,240	4,100	3,000	3,210	18,000	63,000	38,300	23,700	9,170	5,660
16	7,150	5,790	4,470	4,080	3,050	3,280	17,600	60,200	34,600	22,000	8,810	5,980
17	6,950	5,610	4,410	4,180	3,160	3,450	17,900	51,400	32,700	20,600	8,600	6,040
18	6,690	5,330	4,380	4,100	3,290	3,930	20,000	45,100	32,500	19,400	8,660	5,820
19	6,480	5,060	4,360	4,010	3,240	4,360	22,700	41,800	33,700	18,400	8,570	5,680
20	6,400	5,060	3,950	3,970	3,090	4,470	22,600	40,200	36,400	17,800	8,210	5,610
21	6,400	5,200	3,360	3,820	2,940	4,470	20,300	38,600	42,100	17,300	7,970	5,850
22	6,340	5,550	2,910	3,780	2,910	4,510	18,600	37,400	48,400	17,200	7,790	6,040
23	6,200	6,060	2,990	3,600	2,910	4,340	20,400	39,000	48,200	17,100	7,530	6,230
24	6,090	6,120	3,280	3,400	2,840	4,200	30,300	43,900	45,300	16,500	7,530	6,400
25	6,060	5,820	3,120	3,200	2,800	4,080	38,700	50,700	43,700	16,000	7,610	6,830
26	6,320	5,550	3,000	3,000	2,760	4,020	35,900	58,900	47,300	15,800	7,470	7,060
27	6,690	5,280	2,890	3,200	2,800	4,180	30,700	64,300	50,100	16,100	7,610	7,030
28	6,860	5,080	2,100	3,400	2,800	4,800	26,800	62,600	51,300	15,800	7,640	6,860
29	6,800	4,940	2,000	3,000	-----	5,530	26,100	53,900	50,900	14,600	7,380	6,660
30	6,710	4,980	2,100	2,580	-----	6,060	26,700	50,500	50,000	14,100	7,180	6,460
31	6,860	-----	2,200	2,830	-----	7,060	-----	52,800	-----	13,700	7,000	-----
TOTAL	215,880	176,240	118,980	109,890	84,140	118,620	578,400	1,323.4M	1,452.3M	795,200	288,830	183,900
MEAN	6,964	5,875	3,838	3,545	3,005	3,826	19,280	42,690	48,410	25,650	9,317	6,130
MAX	8,480	7,180	4,980	4,820	3,290	7,060	38,700	64,300	69,500	46,800	13,200	7,060
MIN	6,060	4,940	2,000	2,300	2,760	2,890	8,630	21,400	32,500	13,700	7,000	5,480
CFSM	.68	.57	.37	.35	.29	.37	1.88	4.17	4.73	2.51	.91	.60
IN.	.78	.64	.43	.40	.31	.43	2.10	4.81	5.27	2.89	1.05	.67
AC-FT	428,200	349,600	236,000	218,000	166,900	235,300	1,147M	2,625M	2,881M	1,577M	572,900	364,800

CAL YR 1968: TOTAL 4,396,170 MEAN 12,010 MAX 66,200 MIN 2,000 CFSM 1.17 IN 15.97 AC-FT 8,720,000
WTR YR 1969: TOTAL 5,445,780 MEAN 14,920 MAX 69,500 MIN 2,000 CFSM 1.46 IN 19.78 AC-FT 10,800,000

M Expressed in thousands.

KOOTENAI RIVER BASIN

12-3045. Yaak River near Troy, Mont.

LOCATION.--Lat 48°33'43", long 115°58'09", in NE¼SE¼SE¼ sec.5, T.32 N., R.34 W., Lincoln County, Kootenai National Forest, on right bank 500 ft upstream from bridge on U.S. Highway 2, 0.2 mile upstream from mouth, and 7.7 miles (revised) northwest of Troy.

DRAINAGE AREA.--766 sq mi.

PERIOD OF RECORD.--October 1910 to September 1916 (fragmentary record), March 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,839.2 ft above mean sea level. Oct. 15, 1910, to Sept. 30, 1916, nonrecording gage at several sites within 11 miles of present site at various datums.

AVERAGE DISCHARGE.--13 years, 935 cfs (16.58 inches per year, 677,400 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 8,130 cfs May 13 (gage height, 8.35 ft); minimum, 128 cfs Sept. 18. Period of record: Maximum discharge, 12,100 cfs May 21, 1956 (gage height, 9.70 ft in gage well, 10.8 ft from outside gage); minimum daily, 80 cfs Jan. 19, 1957, Jan. 2, 1958, Dec. 13, 1967. Flood in May to June 1948 reached a stage of 11.0 ft from floodmarks (discharge, 12,500 cfs). Flood in May 1954 reached a stage of 11.4 ft from floodmarks (discharge, 13,400 cfs).

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 30 acres above station. Records of water temperatures for the water year 1969 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	390	737	620	230	300	260	2,150	3,890	4,100	2,380	358	166
2	365	672	585	270	300	257	1,990	3,530	3,690	2,040	344	162
3	348	646	591	310	310	256	2,080	3,340	3,550	1,930	339	157
4	346	630	854	340	310	255	2,020	3,130	3,390	1,870	327	167
5	370	599	763	370	300	256	2,010	3,160	3,140	1,740	318	171
6	385	572	634	400	300	263	2,630	3,560	2,890	1,630	311	168
7	415	547	576	390	310	252	3,280	4,370	3,240	1,480	303	165
8	400	531	601	380	310	241	3,250	4,810	2,640	1,350	293	157
9	379	537	586	370	310	235	3,000	5,290	2,240	1,240	283	151
10	389	519	614	360	310	247	3,030	6,370	2,010	1,140	274	147
11	423	529	800	360	320	252	3,220	7,290	1,780	1,060	263	142
12	624	846	785	350	320	264	3,430	7,580	2,100	995	255	138
13	701	893	705	350	320	258	3,590	7,570	2,060	953	251	133
14	659	781	652	340	310	257	3,410	7,240	1,660	887	248	130
15	625	703	633	330	300	258	3,110	6,740	1,470	827	240	130
16	612	660	615	320	310	265	3,090	5,570	1,330	775	229	134
17	555	601	590	310	312	315	3,460	4,850	1,240	730	221	131
18	520	567	566	300	299	408	4,610	4,510	1,160	689	220	129
19	498	569	546	290	284	433	4,840	4,380	1,100	650	217	143
20	530	588	436	280	285	429	4,160	4,190	1,020	612	211	159
21	545	623	413	270	289	435	3,490	3,860	961	576	207	240
22	523	899	433	260	294	456	3,400	3,790	973	544	201	232
23	506	1,130	469	250	291	472	4,830	3,990	931	519	197	259
24	496	1,000	484	260	282	457	7,620	4,180	1,030	497	190	374
25	527	882	491	260	278	450	7,520	4,250	1,650	474	182	314
26	690	798	448	270	274	464	5,670	4,330	1,850	457	176	283
27	703	762	435	270	265	542	4,440	4,080	2,600	442	172	256
28	632	691	300	280	252	724	4,080	3,620	3,050	421	171	227
29	602	641	200	280	-----	880	4,640	3,270	2,980	400	173	208
30	653	666	150	290	-----	1,050	4,570	5,310	2,790	384	172	242
31	793	-----	190	290	-----	1,530	-----	5,030	-----	370	169	-----
TOTAL	16,204	20,819	16,765	9,630	8,345	13,121	112,620	147,080	64,625	30,062	7,515	5,615
MEAN	523	694	541	311	298	423	3,754	4,745	2,154	970	242	187
MAX	793	1,130	854	400	320	1,530	7,620	7,580	4,100	2,380	358	374
MIN	346	519	150	230	252	235	1,990	3,130	931	370	169	129
CFSM	.68	.91	.71	.41	.39	.55	4.90	6.19	2.81	1.27	.32	.24
IN.	.79	1.01	.81	.47	.41	.64	5.47	7.14	3.14	1.46	.36	.27
AC-FT	32,140	41,290	33,250	19,100	16,550	26,030	223,400	291,700	128,200	59,630	14,910	11,140
CAL YR 1968: TOTAL	312,459			MEAN 854		MAX 4,900	MIN 119	CFSM 1.11	IN 15.17	AC-FT 619,800		
WTR YR 1969: TOTAL	452,401			MEAN 1,239		MAX 7,620	MIN 129	CFSM 1.62	IN 21.96	AC-FT 897,300		

PEAK DISCHARGE (BASE, 5,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-25	0215	8.30	7,960	5-30	1245	7.74	6,220
5-13	0145	8.35	8,130				

12-3050. Kootenai River at Leonia, Idaho

LOCATION.--Lat 48°37'04", long 116°02'47", in NW¼NW¼ sec.20, T.33 N., R.34 W., Principal meridian, Lincoln County, Mont., on right bank at Leonia, 450 ft east of Montana-Idaho State line, 0.5 mile upstream from Boulder Creek, and at mile 171.6.

DRAINAGE AREA.--11,740 sq mi, approximately.

PERIOD OF RECORD.--March 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,700.25 ft above mean sea level. Prior to Nov. 13, 1928, non-recording gage on bridge 250 ft upstream at datum 0.41 ft lower.

AVERAGE DISCHARGE.--41 years, 14,050 cfs (16.25 inches per year, 10,180,000 acre-ft per year); 15-year base period (1952-67), 15,290 cfs.

EXTREMES.--Current year: Maximum discharge, 74,600 cfs June 7 (gage height, 116.55 ft); minimum daily, 3,100 cfs Dec. 31.

Period of record: Maximum discharge, 123,000 cfs May 28, 1948 (gage height, 123.40 ft); minimum, 996 cfs Dec. 9, 1936; minimum gage height, 97.56 ft Dec. 10, 1929.

Floods of June 1894 and 1916 reached stages of 124.6 and 121.6 ft, respectively, from information by Great Northern Railway.

REMARKS.--Records excellent except those for Dec. 27 to Mar. 14, which are fair and those for Sept. 3-17, which are good. Diversions above station for irrigation of about 14,600 acres. Records of water temperatures for water year 1969 are published in Part 2 of this report.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)

(Stage-discharge relation affected by ice Dec. 28 to Mar. 14;
shifting-control method used May 21 to June 15.)

Oct. 1 to May 28			May 29 to Sept. 30		
100.0	3,000	105.0	102.0	5,600	113.0
101.0	4,420	110.0	105.0	14,600	117.0
102.0	6,350	116.0	109.0	31,700	53,600
					79,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9,660	8,650	6,560	3,200	3,900	4,100	13,000	31,700	58,500	54,000	13,100	7,840
2	9,400	8,680	6,350	3,400	4,000	4,100	13,600	29,400	53,800	51,000	13,500	7,610
3	9,160	8,530	6,240	3,600	4,100	4,200	14,000	27,600	54,300	47,000	13,000	7,390
4	8,900	8,380	6,890	3,900	4,300	4,300	14,200	26,400	60,200	46,000	12,700	7,230
5	8,680	8,090	6,890	4,200	4,400	4,300	14,100	25,700	66,600	45,000	12,400	7,180
6	8,530	7,870	6,400	4,600	4,500	4,300	15,600	26,400	71,300	44,000	12,000	7,180
7	8,470	7,660	5,680	5,100	4,500	4,300	15,100	29,500	74,500	41,000	11,900	7,150
8	8,350	7,440	5,350	5,600	4,500	4,300	20,100	33,900	72,700	38,600	11,700	7,070
9	8,120	7,280	5,420	5,900	4,400	4,300	20,100	37,800	65,900	36,200	11,400	6,940
10	8,010	7,080	5,520	6,100	4,300	4,300	20,500	45,200	59,100	34,000	11,000	6,750
11	8,010	7,060	6,400	6,200	4,300	4,300	21,500	54,900	55,900	22,400	10,800	6,630
12	8,470	7,900	6,840	6,200	4,220	4,350	22,300	63,200	56,100	31,300	10,500	6,580
13	8,810	8,380	6,750	6,200	4,200	4,400	23,200	69,000	54,600	30,600	10,400	6,530
14	9,000	8,350	6,110	6,100	4,200	4,450	23,800	72,100	50,700	29,200	10,200	6,530
15	9,000	7,980	5,660	6,000	4,200	4,540	23,200	73,300	43,900	26,300	10,000	6,500
16	8,840	7,690	5,960	5,900	4,300	4,590	22,700	69,500	39,400	23,900	9,700	6,680
17	8,500	7,380	5,800	5,700	4,300	4,840	23,200	60,400	37,000	22,200	9,450	6,870
18	8,180	7,080	5,740	5,400	4,200	5,460	26,500	53,200	35,900	20,800	9,390	6,760
19	7,930	6,770	5,720	5,200	4,300	6,000	29,600	49,400	36,300	15,800	9,300	6,660
20	7,820	6,650	5,270	5,000	4,200	6,200	29,300	47,300	38,000	19,000	9,180	6,550
21	7,820	6,800	4,950	4,800	4,200	6,130	26,300	45,000	45,000	18,400	8,970	6,710
22	7,790	7,440	4,680	4,600	4,100	6,220	24,300	43,600	53,000	18,000	8,760	6,630
23	7,640	8,380	4,090	4,400	4,000	6,130	27,200	45,100	53,000	17,800	8,550	7,070
24	7,510	8,500	4,140	4,100	4,000	5,940	39,800	50,500	52,000	17,400	8,370	7,330
25	7,440	8,040	4,010	3,900	4,000	5,780	49,100	57,100	49,000	16,900	8,540	7,470
26	7,690	7,660	3,820	3,800	4,000	5,680	44,900	65,000	52,000	16,400	8,310	7,670
27	8,010	7,310	3,750	3,700	4,100	5,840	41,200	70,200	55,000	16,400	8,340	7,780
28	8,240	7,020	3,600	3,600	4,100	6,720	33,400	68,700	57,000	16,500	8,400	7,610
29	8,240	6,700	3,300	3,600	-----	7,660	32,800	61,200	57,000	15,600	8,340	7,440
30	8,210	6,700	3,200	3,700	-----	8,530	33,200	62,200	56,000	14,900	8,170	7,310
31	8,440	-----	3,100	3,800	-----	10,100	-----	63,100	-----	14,500	8,000	-----
TOTAL	258,870	229,450	164,590	147,500	117,820	166,360	757,800	1,557.6M	1,613.7M	875,100	314,600	211,690
MEAN	8,351	7,648	5,309	4,758	4,208	5,366	25,260	50,250	53,790	28,230	10,150	7,056
MAX	9,660	8,680	6,890	6,200	4,500	10,100	49,100	73,300	74,500	54,000	13,500	7,840
MIN	7,440	6,650	3,100	3,200	3,900	4,100	13,000	25,700	35,900	14,500	8,000	6,500
CFSM	.71	.65	.45	.41	.36	.46	2.15	4.28	4.58	2.40	.66	.60
IN.	.82	.73	.52	.47	.37	.53	2.40	4.93	5.11	2.77	1.00	.67
AC-FT	513,500	455,100	326,500	292,600	233,700	330,000	1,503M	3,089M	3,201M	1,736M	624,000	419,900

CAL YR 1968: TOTAL 5,128,510 MEAN 14,010 MAX 70,900 MIN 3,100 CFSM 1.19 IN 16.25 AC-FT 10,170,000
WTR YR 1969: TOTAL 6,415,080 MEAN 17,580 MAX 74,500 MIN 3,100 CFSM 1.50 IN 20.32 AC-FT 12,720,000

M Expressed in thousands.

KOOTENAI RIVER BASIN

12-3055. Boulder Creek near Leonia, Idaho

LOCATION.--Lat 48°35'54", long 116°05'30", in NE¼ sec.32, T.61 N., R.3 E., Boundary County, on right bank 0.8 mile downstream from McGinty Creek, 0.8 mile upstream from building of the Idamont Lead-Zinc Mines Co., 2.5 miles southwest of Leonia, and at mile 2.8.

DRAINAGE AREA.--53 sq mi, approximately.

PERIOD OF RECORD.--April 1928 to current year. Monthly discharge only for some periods, published in WSP 1316.

GAGE.--Water-stage recorder. Altitude of gage is 2,600 ft (from topographic map). Prior to Nov. 20, 1928, non-recording gage at site 1 mile downstream at different datum. Nov. 20, 1928, to Nov. 29, 1933, and Oct. 13, 1934, to Sept. 27, 1946, water-stage recorder, and Dec. 30, 1933, to Oct. 12, 1934, nonrecording gage at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE.--41 years, 118 cfs (30.23 inches per year, 85,490 acre-ft per year); 15-year base period (1952-67), 128 cfs.

EXTREMES.--Current year: Maximum discharge, 2,720 cfs May 30 (gage height, 5.81 ft); minimum, 11 cfs Sept. 10-18 (gage height, 2.73 ft).
Period of record: Maximum discharge, 2,720 cfs May 30, 1969 (gage height, 5.81 ft); minimum, 2 cfs Aug. 25, Sept. 5, 1931.

REMARKS.--Records good except for ice period, which are fair. No regulation or diversion.

REVISIONS (WATER YEARS).--WSP 1736: 1936(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	134	97	32	32	24	183	336	630	135	24	12
2	42	120	90	39	31	24	155	300	640	126	23	12
3	40	129	112	45	31	24	159	283	650	140	22	12
4	44	119	149	47	31	24	137	279	620	133	21	13
5	43	106	116	50	30	24	145	312	570	150	23	14
6	52	98	92	50	30	24	201	429	528	133	22	13
7	55	88	91	48	30	23	219	585	480	120	20	12
8	49	85	88	47	29	23	196	679	408	110	19	12
9	46	83	81	46	29	23	179	868	360	100	18	12
10	56	77	120	46	29	22	189	1,080	325	91	18	11
11	70	114	163	45	28	22	188	1,080	272	85	17	11
12	198	308	126	44	28	22	207	986	296	80	16	11
13	144	191	107	43	28	22	241	870	224	75	16	11
14	108	155	103	43	27	22	220	890	190	69	16	11
15	107	137	93	42	27	22	202	860	177	66	15	11
16	92	123	89	42	26	23	228	740	161	60	15	12
17	83	106	82	41	26	40	308	700	150	57	15	11
18	79	102	78	41	26	52	509	680	140	52	14	12
19	77	103	73	40	26	47	416	700	130	49	13	17
20	93	125	70	40	26	43	331	690	118	47	14	18
21	89	133	67	39	26	42	283	620	112	42	14	24
22	82	268	64	38	26	43	311	660	104	41	13	19
23	81	229	62	38	25	41	528	710	104	39	13	54
24	67	183	60	37	25	38	670	710	120	38	13	40
25	106	153	58	36	25	37	492	730	140	35	12	21
26	155	136	54	36	24	37	361	740	158	34	13	18
27	119	122	50	35	24	52	357	710	180	31	12	18
28	105	108	44	34	24	73	388	590	152	30	13	18
29	106	110	34	33	-----	80	515	680	194	28	13	19
30	170	107	25	32	-----	90	391	1,530	158	27	12	65
31	174	-----	29	32	-----	161	-----	810	-----	26	12	-----
TOTAL	2,797	4,052	2,567	1,261	769	1,244	8,929	21,837	8,491	2,249	501	544
MEAN	90.2	135	82.8	40.7	27.5	40.1	298	704	283	72.5	16.2	18.1
MAX	198	308	163	50	32	161	670	1,530	650	150	24	65
MIN	40	77	25	32	24	22	137	279	104	26	12	11
CFSM	1.70	2.55	1.56	.77	.52	.76	5.62	13.3	5.34	1.37	.30	.34
IN.	1.96	2.84	1.80	.88	.54	.87	6.27	15.32	5.96	1.58	.35	.38
AC-FT	5,550	8,040	5,090	2,500	1,530	2,470	17,710	43,310	16,840	4,460	994	1,080

CAL YR 1968: TOTAL 50,681

MEAN 138

MAX 761

MIN 12

CFSM 2.61

IN 35.56

AC-FT 100,500

WTR YR 1969: TOTAL 55,241

MEAN 151

MAX 1,530

MIN 11

CFSM 2.86

IN 38.76

AC-FT 109,600

PEAK DISCHARGE (BASE, 800 CFS).--May 10 (1900) 1,450 cfs (5.26 ft); May 30 (0330) 2,720 cfs (5.81 ft).

KOOTENAI RIVER BASIN

35

12-3065. Moyie River at Eastport, Idaho
(International gaging station)

LOCATION.--Lat 48°59'58", long 116°10'43", in NE¼SE¼ sec.10, T.65 N., R.2 E., Boundary County, on left bank at Eastport, 1,000 ft downstream from international boundary, and at mile 25.0.

DRAINAGE AREA.--570 sq mi, approximately.

PERIOD OF RECORD.--January to December 1915, March to December 1916, August 1929 to current year in reports of Geological Survey. Monthly discharge only for some periods, published in WSP 1736.

GAGE.--Water-stage recorder. Datum of gage is 2,620.06 ft above mean sea level. January 1915 to December 1916 nonrecording gage at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE.--40 years (1929-69), 712 cfs (16.96 inches per year, 515,800 acre-ft per year); 15-year base period (1952-67), 756 cfs.

EXTREMES.--Current year: Maximum discharge, 6,780 cfs May 14 (gage height, 9.08 ft); minimum, 67 cfs Sept. 17-18 (gage height, 3.49 ft).

Period of record: Maximum discharge observed, 10,600 cfs June 19, 1916; maximum gage height, 10.55 ft May 20, 1954; minimum discharge, 23 cfs Nov. 7, 1936 (gage height, 3.20 ft).

REMARKS.--Records excellent except those for winter period, which are poor. No regulation or diversion above station.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	450	328	120	166	145	999	3,310	3,950	2,830	257	88
2	234	430	313	145	168	142	972	3,130	3,720	2,530	239	85
3	226	420	328	160	170	145	1,070	2,890	3,640	2,410	226	83
4	222	410	365	170	170	148	1,050	2,750	3,560	2,220	214	85
5	239	400	328	175	170	149	1,120	2,800	3,440	2,070	206	85
6	239	390	320	180	170	149	1,530	3,150	3,290	1,950	194	83
7	248	381	310	180	170	145	1,800	3,710	3,250	1,760	190	81
8	234	381	304	180	170	140	1,780	4,010	2,920	1,580	183	78
9	226	381	294	180	170	150	1,760	4,470	2,630	1,420	176	76
10	230	359	323	180	170	150	1,910	5,190	2,410	1,280	169	76
11	234	370	375	180	166	152	2,070	5,900	2,180	1,150	162	73
12	280	476	349	180	164	154	2,240	6,370	2,220	1,040	155	73
13	318	445	318	180	164	156	2,410	6,390	2,020	963	149	73
14	309	410	313	180	164	158	2,300	6,470	1,790	886	145	71
15	313	392	309	178	164	165	2,190	6,240	1,580	828	142	71
16	304	387	309	175	162	180	2,270	5,350	1,430	758	133	69
17	299	354	299	175	162	210	2,580	4,870	1,260	690	129	69
18	294	349	294	170	162	248	3,170	4,580	1,150	638	126	67
19	289	344	285	170	162	262	3,070	4,420	1,070	595	123	73
20	294	339	250	170	160	266	2,760	4,180	1,010	560	120	85
21	294	349	240	170	160	280	2,600	3,920	1,180	508	117	109
22	289	439	230	165	155	299	3,000	3,860	1,330	476	112	98
23	285	470	230	165	152	289	3,600	4,000	1,340	452	109	103
24	285	433	230	165	152	280	5,070	4,080	1,540	427	106	158
25	304	410	230	165	150	285	4,180	4,120	2,120	398	103	129
26	404	398	230	165	150	304	3,600	4,480	2,500	370	98	117
27	400	381	200	165	148	349	3,340	4,400	3,350	354	95	112
28	390	344	130	165	148	470	3,340	4,130	3,560	328	95	93
29	380	349	90	165	-----	554	3,980	3,770	3,420	299	93	93
30	450	349	70	164	-----	660	3,640	5,350	3,180	285	90	123
31	480	-----	100	164	-----	844	-----	4,650	-----	270	88	-----
TOTAL	9,237	11,790	8,294	5,246	4,539	8,028	75,401	136,940	72,040	32,325	4,544	2,679
MEAN	298	393	268	169	162	259	2,513	4,417	2,401	1,043	147	89.3
MAX	480	476	375	180	170	844	5,070	6,470	3,950	2,830	257	158
MIN	222	339	70	120	148	140	972	2,750	1,010	270	88	67
CFSM	.52	.69	.47	.30	.28	.45	4.41	7.75	4.21	1.83	.26	.16
IN.	.60	.77	.54	.34	.30	.52	4.92	8.93	4.70	2.11	.30	.17
AC-FT	18,320	23,390	16,450	10,410	9,000	15,920	149,600	271,600	142,900	64,120	9,010	5,310

CAL YR 1968: TOTAL 242,814 MEAN 663 MAX 4,560 MIN 52 CFSM 1.16 IN 15.84 AC-FT 481,600
WTR YR 1969: TOTAL 371,063 MEAN 1,017 MAX 6,470 MIN 67 CFSM 1.78 IN 24.21 AC-FT 736,000

PEAK DISCHARGE (BASE, 2,900 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-24	0600	8.17	5,340	5-30	1300	8.80	6,260
5-14	0300	9.08	6,780	6-27	2200	7.30	3,710

KOOTENAI RIVER BASIN

12-3075. Moyie River at Eileen, Idaho

LOCATION.--Lat 48°46'27", long 116°09'26", in NE¼NE¼ sec.35, T.63 N., R.2 E., Boundary County, on right bank 800 ft downstream from Skin Creek, 0.3 mile southeast of Eileen, and at mile 5.0.

DRAINAGE AREA.--755 sq mi.

PERIOD OF RECORD.--October 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,124.5 ft above mean sea level (river-profile survey). Prior to June 1, 1928, nonrecording gage and June 1, 1928, to Sept. 30, 1944, water-stage recorder at same site at datum 1.0 ft higher.

AVERAGE DISCHARGE.--44 years, 884 cfs (15.90 inches per year, 640,500 acre-ft per year); 15-year base period (1952-67), 954 cfs.

EXTREMES.--Current year: Maximum discharge, 7,620 cfs May 14 (gage height, 6.19 ft); minimum daily, 110 cfs Dec. 30, Sept. 14-17; minimum gage height, 1.72 ft Sept. 18.

Period of record: Maximum discharge, 11,000 cfs May 20, 1954 (gage height, 6.99 ft); minimum, 40 cfs Nov. 27, 1936, and Dec. 17, 1964, both the result of freezeup; minimum gage height, 0.50 ft Feb. 22, 1944, present datum.

Flood of June 19, 1916, was about 12,000 cfs.

REMARKS.--Records excellent except those for winter period, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	377	642	468	150	225	175	1,440	3,760	4,600	3,230	339	132
2	365	618	448	170	230	178	1,430	3,480	4,310	2,920	313	132
3	348	609	468	190	235	179	1,540	3,210	4,180	2,780	302	128
4	354	601	547	210	240	183	1,500	3,000	4,080	2,580	287	135
5	365	577	482	230	245	194	1,600	3,000	3,900	2,440	277	132
6	371	554	434	240	245	194	2,100	3,370	3,710	2,300	267	128
7	384	532	421	250	245	179	2,440	4,030	3,710	2,160	257	125
8	359	524	434	260	245	175	2,390	4,440	3,320	1,890	243	122
9	354	524	421	270	240	180	2,340	4,980	3,020	1,700	234	119
10	365	495	502	270	240	187	2,460	6,020	2,800	1,510	225	122
11	377	524	642	275	235	191	2,620	6,860	2,540	1,380	216	119
12	434	702	585	275	235	191	2,840	7,170	2,620	1,260	207	116
13	482	693	532	275	230	194	3,020	7,310	2,430	1,170	203	113
14	475	618	510	270	230	198	2,900	7,340	2,160	1,070	199	110
15	488	577	488	265	230	202	2,740	7,140	1,890	990	187	110
16	468	562	482	260	225	202	2,820	6,160	1,710	912	179	110
17	448	510	461	255	225	260	3,230	5,640	1,570	827	175	110
18	434	495	441	255	220	325	4,160	5,370	1,440	782	171	113
19	428	482	421	250	215	365	3,950	5,160	1,340	723	171	122
20	434	482	359	245	210	371	3,480	4,890	1,260	675	163	138
21	434	502	359	240	205	396	3,100	4,550	1,370	623	160	183
22	428	618	348	235	200	415	3,230	4,520	1,530	587	152	171
23	421	693	354	230	195	415	5,000	4,690	1,570	567	149	191
24	415	642	365	230	185	402	7,100	4,800	1,720	527	149	247
25	448	609	377	225	180	409	5,340	4,830	2,410	501	146	221
26	554	570	350	225	175	428	4,390	5,130	2,820	463	142	199
27	547	547	300	220	175	510	3,930	5,100	3,690	438	138	187
28	524	510	270	220	172	658	3,880	4,720	3,950	420	135	171
29	524	495	210	220	-----	774	4,630	4,340	3,860	402	135	171
30	585	510	110	220	-----	846	4,290	6,030	3,640	367	132	195
31	667	-----	130	225	-----	1,200	-----	5,460	-----	350	132	-----
TOTAL	13,657	17,017	12,719	7,355	6,132	10,776	95,890	156,500	83,150	38,544	6,185	4,372
MEAN	441	567	410	237	219	348	3,196	5,048	2,772	1,243	200	146
MAX	667	702	642	275	245	1,200	7,100	7,340	4,600	3,230	339	247
MIN	348	482	110	150	172	175	1,430	3,000	1,260	350	132	110
CFSM	.58	.75	.54	.31	.29	.46	4.23	6.69	3.67	1.65	.26	.19
IN.	.67	.84	.63	.36	.30	.53	4.72	7.71	4.10	1.90	.30	.22
AC-FT	27,090	33,750	25,230	14,590	12,160	21,370	190,200	310,400	164,900	76,450	12,270	8,670
CAL YR 1968: TOTAL	315,439											
MEAN	862											
MAX	5,740											
MIN	110											
CFSM	1.14											
IN	15.54											
AC-FT	625,700											
WTR YR 1969: TOTAL	452,297											
MEAN	1,239											
MAX	7,340											
MIN	110											
CFSM	1.64											
IN	22.28											
AC-FT	897,100											

PEAK DISCHARGE (BASE, 3,500 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
4-24	1000	5.92	7,170	5-30	1600	6.00	6,960
5-14	0530	6.19	7,620	6-28	0030	4.97	4,130

KOOTENAI RIVER BASIN

37

12-3095. Kootenai River at Bonners Ferry, Idaho

LOCATION.--Lat 48°42'00", long 116°18'45", in NE¼ sec.27, T.62 N., R.1 E., Boundary County, on left bank 43 ft downstream from highway bridge at Bonners Ferry, and at mile 152.8.

DRAINAGE AREA.--13,000 sq mi, approximately.

PERIOD OF RECORD.--May to October 1904, October 1927 to current year (elevations only prior to March 1928 and October 1960 to current year). Gage heights collected in this vicinity since 1904 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,743.00 ft above mean sea level with respect to Geological Survey bench mark V-3-1929 at elevation 1,777.08 ft. Gage heights have been reduced to elevations above mean sea level. Datum of 1929, supplementary adjustment of 1947, is 0.02 ft higher. May 1 to Oct. 15, 1904, nonrecording gage on railroad bridge 0.8 mile downstream at different datum. Oct. 1, 1927, to Nov. 30, 1929, nonrecording gage near left bank. Dec. 1, 1929, to June 12, 1933, nonrecording gages on old highway bridge 40 ft downstream. Nonrecording gage near right bank on downstream side of highway bridge at Bonners Ferry June 13, 1933, to Sept. 30, 1960, and supplementary gage thereafter. Datum of gages Oct. 1, 1927, to Jan. 2, 1931, was about 0.23 ft lower.

EXTREMES.--Current year: Maximum elevation, 1,772.98 ft June 8; minimum observed, 1,743.90 ft Mar. 7.

Period of record: Maximum elevation, 1,780.13 ft May 29, 1961; minimum, 1,741.14 ft Dec. 5, 1929, Dec. 29, 1930, datum then in use.

Flood of June 1894 reached a stage of 1,777.2 ft, present datum.

REMARKS.--Elevations affected by backwater from Kootenay Lake. No drainage district dike failed during year.

REVISIONS (WATER YEARS).--WSP 1716: 1959 (maximum elevation).

ELEVATION, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.49	48.36	47.60	48.85	47.30	45.00	47.50	59.38	70.24	66.37	50.89	46.55
2	48.35	48.37	47.45	47.70	47.29	44.95	48.25	58.65	68.78	65.23	50.49	46.45
3	48.20	48.31	47.40	47.80	47.31	44.90	48.60	57.88	68.10	64.36	50.25	46.35
4	48.07	48.26	47.84	47.75	47.27	44.80	48.90	57.26	68.81	63.76	50.03	46.30
5	48.03	48.11	47.82	48.10	47.27	44.80	48.85	56.88	70.26	63.61	49.75	46.25
6	47.95	48.00	47.60	48.25	47.16	44.75	49.25	57.05	71.60	63.25	49.62	46.25
7	47.95	47.89	47.35	48.45	47.09	44.75	50.60	58.17	72.68	62.58	49.48	46.25
8	47.88	47.81	47.29	48.40	46.99	44.70	51.80	59.67	72.90	61.80	49.28	46.25
9	47.78	47.78	47.17	48.65	46.97	44.45	52.10	61.15	71.98	60.95	49.05	46.20
10	47.69	47.67	47.38	48.55	46.91	44.40	52.20	63.25	70.01	60.10	48.83	46.15
11	47.79	47.69	47.75	48.50	46.87	44.40	52.60	66.00	68.59	59.40	48.58	46.32
12	48.04	48.11	47.93	48.35	46.86	44.35	53.20	68.47	68.05	58.90	48.31	46.37
13	48.20	48.33	47.83	48.25	46.85	44.25	53.55	70.58	67.61	58.65	48.25	46.48
14	48.32	48.22	47.60	48.00	46.73	44.20	54.50	71.96	66.63	58.30	48.12	46.68
15	48.28	48.08	47.49	47.80	46.65	44.20	54.50	72.78	65.01	57.50	48.05	46.78
16	48.27	47.98	47.47	47.80	46.54	44.10	54.25	72.73	63.39	56.85	47.80	46.92
17	48.12	47.82	47.35	47.75	46.50	44.10	54.40	71.27	62.26	55.90	47.70	47.07
18	47.99	47.69	47.32	47.65	46.38	44.45	55.45	69.27	61.57	55.60	47.60	47.10
19	47.87	47.58	47.40	47.70	46.32	44.75	57.40	67.80	61.33	55.10	47.60	47.08
20	47.86	47.48	47.56	47.65	46.21	44.75	58.10	66.92	61.54	54.20	47.45	47.11
21	47.85	47.57	48.12	47.70	46.05	44.65	57.30	66.14	62.34	53.75	47.25	47.21
22	47.85	47.93	48.29	47.70	45.93	44.50	56.15	65.60	63.85	53.55	47.10	47.24
23	47.81	48.38	48.44	47.50	45.82	44.45	56.30	65.63	64.68	54.85	46.90	47.30
24	47.78	48.44	48.66	47.50	45.65	44.25	59.82	65.55	64.39	54.95	46.85	47.58
25	47.79	48.24	48.73	47.45	45.55	44.05	62.89	67.92	64.33	54.20	46.70	47.56
26	47.96	48.01	48.59	47.50	45.44	43.95	62.88	69.71	64.75	53.10	46.65	47.63
27	48.08	47.85	48.53	47.50	45.35	43.90	61.78	71.37	66.14	52.43	46.60	47.63
28	48.16	47.75	48.35	47.50	45.15	44.35	59.82	71.87	67.05	52.32	46.70	47.59
29	48.15	47.59	48.40	47.40	-----	44.95	59.51	70.82	67.21	51.75	46.90	47.46
30	48.14	47.66	48.85	47.37	-----	45.50	59.76	70.66	67.11	51.40	46.80	47.35
31	48.29	-----	48.80	47.30	-----	46.00	-----	71.20	-----	51.20	46.70	-----
MAX	48.49	48.44	48.85	48.85	47.31	46.00	62.89	72.78	72.90	66.37	50.89	47.63
MIN	47.69	47.48	47.17	47.30	45.15	43.90	47.50	56.88	61.33	51.20	46.60	46.15
MEAN	48.03	47.97	47.88	47.88	46.51	44.57	54.74	65.92	66.77	57.61	48.14	46.85

WATER YEAR 1968-69: MEAN 51.93 MAX 72.90 MIN 43.90

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

KOOTENAI RIVER BASIN

12-3100. Kootenai River near Bonners Ferry, Idaho

LOCATION.--Lat 48°41'55", long 116°20'40", in NW¼ sec.28, T.62 N., R.1 E., Boundary County, on left bank 1.6 miles downstream from highway bridge at Bonners Ferry, and at mile 151.2.

DRAINAGE AREA.--13,000 sq mi, approximately.

PERIOD OF RECORD.--May 1928 to ^{September 1969} current year (discontinued) (elevations only, fragmentary prior to May 1929).

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft above mean sea level, levels by Topographic Division in 1928. Gage readings have been reduced to elevations above mean sea level. Datum of 1929, supplementary adjustment of 1947, is 0.02 ft higher at Bonners Ferry. May 17 to July 20, 1928, water-stage recorder at datum 43.42 ft higher. July 21 to Oct. 22, 1928, and for elevations below 1,742 ft prior to Jan. 2, 1931, nonrecording gage at same datum.

EXTREMES.--Current year: Maximum elevation, 1,772.49 ft June 8; minimum, 1,743.03 ft Mar. 27.

Period of record: Maximum elevation, 1,779.37 ft May 29, 1961; minimum, 1,740.16 ft Mar. 29, 1944.

REMARKS.--Elevations affected by backwater from Kootenay Lake. No drainage district dike failed during year.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.10	47.99	47.30	45.84	45.29	44.26	47.07	58.72	69.79	65.60	50.11	46.07
2	47.98	48.00	47.16	46.07	45.17	44.17	47.73	57.97	68.31	64.50	49.77	45.96
3	47.84	47.94	47.09	46.15	45.08	44.11	48.00	57.23	67.62	63.65	49.51	45.94
4	47.72	47.90	47.53	46.26	45.05	44.06	48.25	55.61	68.26	63.07	49.28	45.90
5	47.68	47.76	47.50	46.44	45.11	44.00	48.24	56.26	69.72	62.90	49.00	45.92
6	47.61	47.64	47.30	46.65	45.12	43.99	48.86	56.42	70.99	62.57	48.85	45.92
7	47.62	47.56	47.03	46.94	45.10	43.91	50.24	57.48	72.10	61.90	48.68	45.90
8	47.55	47.48	46.95	46.92	45.07	43.82	51.24	58.95	72.37	61.13	48.54	45.91
9	47.43	47.45	46.90	46.92	45.07	43.68	51.46	50.44	71.42	60.27	48.26	45.88
10	47.36	47.36	47.10	46.88	45.13	43.62	51.65	62.53	69.58	59.45	47.99	45.92
11	47.45	47.37	47.44	46.87	45.15	43.61	52.10	65.34	67.99	58.80	47.75	45.94
12	47.69	47.75	47.61	46.82	45.17	43.58	52.62	67.80	67.41	58.37	47.57	46.02
13	47.85	47.96	47.51	46.70	45.22	43.47	53.06	69.91	66.99	58.07	47.55	46.08
14	47.96	47.85	47.30	46.57	45.21	43.45	53.49	71.29	66.02	57.63	47.49	46.37
15	47.92	47.73	47.20	46.47	45.18	43.39	53.43	72.03	64.43	56.79	47.34	46.46
16	47.92	47.64	47.16	46.47	45.18	43.38	53.23	71.96	62.82	55.96	47.16	46.60
17	47.77	47.49	47.06	46.48	45.20	43.45	53.48	70.56	61.70	55.22	47.10	46.74
18	47.65	47.37	47.03	46.45	45.13	43.78	54.50	68.60	60.98	54.58	47.00	46.81
19	47.55	47.27	47.12	46.50	45.03	44.10	55.80	67.16	60.70	54.02	46.93	46.81
20	47.54	47.17	46.98	46.50	44.90	44.15	56.20	66.28	60.86	53.56	46.86	46.84
21	47.52	47.27	46.93	46.40	44.77	43.96	55.70	65.51	61.62	53.19	46.63	46.91
22	47.51	47.58	46.80	46.25	44.67	43.82	55.20	64.97	63.01	52.93	46.54	46.95
23	47.49	47.98	46.61	46.20	44.63	43.74	56.00	64.98	63.97	52.76	46.46	46.99
24	47.45	48.08	46.66	46.05	44.59	43.49	59.20	65.88	63.69	52.45	46.32	47.22
25	47.46	47.83	46.74	46.00	44.54	43.26	62.22	67.30	63.62	52.08	46.27	47.26
26	47.63	47.67	46.65	45.95	44.46	43.11	62.30	69.10	64.00	51.87	46.26	47.32
27	47.73	47.52	46.72	45.80	44.37	43.08	60.77	70.83	65.32	51.69	46.19	47.38
28	47.80	47.44	46.41	45.70	44.32	43.46	59.24	71.37	66.25	51.54	46.33	47.36
29	47.80	47.23	45.90	45.60	-----	43.98	58.92	70.39	66.42	51.08	46.33	47.24
30	47.78	47.35	45.57	45.55	-----	44.47	59.13	70.19	66.31	50.68	46.20	47.23
31	47.92	-----	45.59	45.42	-----	45.24	-----	70.74	-----	50.41	46.10	-----
MAX	48.10	48.08	47.61	46.94	45.29	45.24	62.30	72.03	72.37	65.60	50.11	47.38
MIN	47.36	47.17	45.57	45.42	44.32	43.08	47.07	56.26	60.70	50.41	46.10	45.88
MEAN	47.69	47.62	46.93	46.35	44.96	43.79	53.98	65.32	66.14	56.73	47.50	46.53

WATER YEAR 1968-69: MEAN 51.15 MAX 72.37 MIN 43.08

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

KOOTENAI RIVER BASIN

39

12-3110. Deep Creek at Moravia, Idaho

LOCATION.--Lat 48°37'49", long 116°23'10", in NE¼NE¼NW¼ sec.19, T.61 N., R.1 E., Boundary County, on left bank 50 ft downstream from highway bridge, 1 mile downstream from Ruby Creek, 1 mile southwest of Moravia, and at mile 6.1.

DRAINAGE AREA.--133 sq mi.

PERIOD OF RECORD.--May 1928 to current year. Monthly discharge only for some periods, published in WSP 1316.

GAGE.--Water-stage recorder. Altitude of gage is 1,800 ft (from topographic map). May 1928 to Sept. 19, 1959, nonrecording gages 50 ft upstream. Prior to Aug. 2, 1949, at datum 2.00 ft higher.

AVERAGE DISCHARGE.--41 years, 146 cfs (14.91 inches per year, 105,800 acre-ft per year); 15-year base period (1952-67), 160 cfs.

EXTREMES.--Current year: Maximum discharge, 1,360 cfs May 11 (gage height, 7.52 ft); minimum, 12 cfs Sept. 17 (gage height, 3.61 ft).

Period of record: Maximum discharge, 1,670 cfs May 18, 1954 (gage height, 7.40 ft, from graph based on gage readings); maximum gage height, 7.52 ft May 11, 1969; minimum discharge observed, 5 cfs Aug. 14, 22, 1940.

REMARKS.--Records good except those for Dec. 21 to Mar. 3 and July 16 to Aug. 21, which are fair. Small diversions above station for irrigation. Occasional regulation above station at migratory waterfowl refuge near Elmira.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	106	159	35	75	70	660	736	468	100	25	16
2	39	98	143	45	75	71	597	667	423	87	24	16
3	38	103	175	55	75	72	620	606	384	112	23	15
4	42	102	260	65	76	73	576	585	354	106	23	16
5	45	94	208	72	76	76	591	608	318	147	22	18
6	50	89	169	79	75	80	720	739	292	140	22	17
7	60	82	167	83	75	77	747	876	280	112	21	17
8	51	83	157	88	75	74	676	957	241	98	21	16
9	48	91	147	90	75	75	653	1,030	219	87	20	16
10	60	87	267	90	75	79	676	1,160	203	79	20	16
11	78	124	454	88	74	76	635	1,160	183	76	20	15
12	179	319	349	86	74	73	658	1,080	180	71	20	15
13	152	225	286	84	74	72	728	1,020	161	66	19	14
14	132	178	251	82	74	71	673	927	144	62	19	14
15	151	154	221	80	74	79	645	826	129	54	19	15
16	134	142	210	80	75	88	695	671	118	50	19	15
17	111	125	189	80	76	146	812	642	108	48	19	15
18	105	120	178	79	76	220	1,140	615	102	45	19	16
19	98	116	169	78	76	239	1,060	590	95	42	18	19
20	124	134	114	77	75	225	842	547	80	40	18	24
21	121	145	110	77	74	234	693	504	74	39	18	32
22	108	242	108	77	73	242	736	502	79	38	17	24
23	97	244	105	77	72	241	1,080	494	74	36	17	65
24	94	207	100	77	70	222	1,180	464	93	35	17	65
25	99	182	97	77	70	219	871	450	102	33	16	32
26	108	166	91	76	68	227	736	466	120	31	16	27
27	94	155	84	76	68	288	724	404	166	30	16	24
28	89	139	75	76	69	362	775	365	140	29	16	24
29	88	151	48	76	-----	383	1,100	364	135	28	17	25
30	114	190	20	75	-----	407	854	740	124	27	17	44
31	127	-----	25	75	-----	574	-----	580	-----	26	17	-----
TOTAL	2,878	4,393	5,136	2,355	2,064	5,435	23,153	21,375	5,589	1,974	595	687
MEAN	92.8	146	166	76.0	73.7	175	772	690	186	63.7	19.2	22.9
MAX	179	319	454	90	76	574	1,180	1,160	468	147	25	65
MIN	38	82	20	35	68	70	576	364	74	26	16	14
CFSM	.70	1.10	1.25	.57	.55	1.32	5.80	5.18	1.40	.48	.14	.17
IN.	.80	1.23	1.44	.66	.58	1.52	6.47	5.98	1.56	.55	.17	.19
AC-FT	5,710	8,710	10,190	4,670	4,090	10,780	45,920	42,400	11,090	3,920	1,180	1,360

CAL YR 1968: TOTAL 57,391 MEAN 157 MAX 506 MIN 11 CFSM 1.18 IN 16.05 AC-FT 113,800
WTR YR 1969: TOTAL 75,634 MEAN 207 MAX 1,180 MIN 14 CFSM 1.56 IN 21.15 AC-FT 150,000

PEAK DISCHARGE (BASE, 500 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
12-11	0130	6.03	524	4-29	0630	7.35	1,250
4-18	1100	7.25	1,180	5-11	0115	7.52	1,360
4-24	0315	7.44	1,330	5-30	0815	6.87	880

KOOTENAI RIVER BASIN

12-3140. Kootenai River at Klockmann Ranch, near Bonners Ferry, Idaho

LOCATION.--Lat 48°47'38", long 116°22'51", in SE¼NW¼SE¼ sec.19, T.63 N., R.1 E., Boundary County, on right bank, 0.3 mile downstream from dike of drainage district No. 5, 8 miles north of Bonners Ferry, and at mile 139.7.

DRAINAGE AREA.--13,300 sq mi, approximately.

PERIOD OF RECORD.--May to July, September to November 1928, April to September, December 1929, April 1930 to current year (elevations only, fragmentary prior to April 1930).

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft above mean sea level, levels by Topographic Division in 1928. Gage readings have been reduced to elevations above mean sea level. Datum of 1929 is about 0.03 ft higher. Prior to Sept. 12, 1928, several nonrecording gages within 300 ft at different datums.

EXTREMES.--Current year: Maximum elevation, 1,769.84 ft June 8; minimum, 1,742.5 ft Mar. 27.
Period of record: Maximum elevation, 1,776.41 ft June 7, 1961; minimum, 1,738.76 ft Apr. 1, 1944.

REMARKS.--Elevations affected by backwater from Kootenay Lake. No drainage district dike failed during year.

G11
ELEVATION, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.37	47.26	46.82	45.51		-	45.12	56.86	67.56	63.47	49.05	45.35
2	47.31	47.29	46.75			-	45.83	56.18	66.39	62.52	48.70	45.29
3	47.19	47.28	46.68			-	46.10	55.45	65.69	61.75	48.45	45.30
4	47.09	47.26	46.94			-	46.34	54.89	66.18	61.17	48.25	45.30
5	47.05	47.18	46.97			-	46.34	54.52	67.33	60.99	48.00	45.30
6	46.99	47.09	46.86			-	46.84	54.64	68.44	60.66	47.80	45.27
7	46.98	47.02	46.63			-	48.05	55.62	69.44	60.05	47.60	45.26
8	46.95	46.95	46.50			-	49.12	57.00	69.78	59.36	47.40	45.29
9	46.88	46.92	46.48			-	49.42	58.39	69.04	58.61	47.20	45.28
10	46.79	46.88	46.62			42.98	49.59	60.29	67.56	57.83	46.90	45.35
11	46.82	46.84	46.94			42.97	50.05	62.83	66.07	57.24	46.70	45.40
12	46.98	47.03	47.10			42.95	50.50	65.21	65.48	56.82	46.50	45.51
13	47.15	47.29	47.04			42.90	50.90	67.16	65.07	56.53	46.50	45.64
14	47.23	47.26	46.91			42.82	51.30	68.53	64.18	56.15	46.45	45.88
15	47.24	47.15	46.81			42.79	51.40	69.24	62.73	55.39	46.30	46.01
16	47.23	47.09	46.77			42.81	51.30	69.32	61.25	54.62	46.15	46.14
17	47.17	46.99	46.70			42.85	51.50	68.24	60.17	53.93	46.10	46.30
18	47.08	46.90	46.61			42.91	52.30	66.50	59.47	53.33	46.00	46.37
19	47.00	46.83	46.65			43.15	53.70	65.16	59.15	52.80	45.97	46.38
20	46.95	46.75	46.63			43.22	54.00	64.35	59.21	52.35	45.86	46.41
21	46.95	46.75	46.52			43.14	53.50	63.61	59.82	52.00	46.70	46.46
22	46.93	46.94	46.45			42.99	53.10	63.11	61.08	51.74	45.70	46.50
23	46.93	47.25	46.33			42.87	53.40	63.09	61.90	51.55	45.65	46.54
24	46.91	47.38	46.25			42.62	56.20	63.93	61.69	51.26	45.55	46.76
25	46.90	47.29	46.30			42.39	59.90	65.16	61.62	50.95	45.50	46.73
26	46.99	47.12	46.30			42.23	60.12	66.73	61.94	50.75	45.50	46.79
27	47.09	47.01	46.33			42.18	58.78	68.24	63.09	50.60	45.50	46.85
28	47.13	46.94	46.27			42.45	57.36	68.79	63.94	50.40	45.56	46.84
29	47.16	46.83	45.89		-----	42.85	57.04	68.05	64.14	50.00	45.59	46.73
30	47.15	46.83	45.55		-----	43.21	57.24	67.89	64.05	49.60	45.46	46.74
31	47.22	-----	45.43		-----	43.82	-----	68.31	-----	49.35	45.37	-----
MAX	47.37	47.38	47.10	45.51	-	43.82	60.12	69.32	69.78	63.47	49.05	46.85
MIN	46.79	46.75	45.43	45.51	-	42.18	45.12	54.52	59.15	49.35	45.37	45.26
MEAN	47.06	47.06	46.55	-	-		51.88	63.14	64.12	55.28	46.58	46.00

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

12-3168. Mission Creek near Copeland, Idaho

LOCATION.--Lat 48°55'54", long 116°20'00", in SW¼NE¼NE¼ sec.4, T.64 N., R.1 E., Boundary County, on left bank, 0.1 mile upstream from bridge crossing, 4 miles northeast of Copeland, at mile 6.0, and 17 miles north of Bonners Ferry.

DRAINAGE AREA.--23 sq mi, approximately.

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,814.5 ft, unadjusted.

AVERAGE DISCHARGE.--11 years, 38.9 cfs (22.97 inches per year, 28,180 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 412 cfs May 12 (gage height, 4.89 ft); minimum daily, 3.6 cfs Dec. 31; minimum gage height, 1.97 ft Sept. 13, 14, 18.

Period of record: Maximum discharge, 528 cfs May 26, 1961 (gage height, 5.52 ft); from rating curve extended above 250 cfs on basis of indirect measurement of peak flow; minimum daily, 1.6 cfs Jan. 10-13, 1968.

REMARKS.--Records good except those for December to April, which are fair. No regulation or diversion above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

(Stage-discharge relation affected by ice Dec. 3-8, Dec. 20 to Feb. 24, Feb. 28, Mar. 4, 6-13.)

1.9	3.4	3.0	67
2.0	5.3	3.5	132
2.1	8.1	4.0	220
2.3	16	5.0	420
2.5	27		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	27	21	4.5	6.9	7.5	35	160	199	96	14	4.9
2	10	26	20	5.6	6.9	7.5	37	153	181	85	13	4.7
3	10	26	20	6.8	6.9	7.5	38	137	167	50	12	4.7
4	11	25	19	7.8	7.0	7.5	40	132	155	85	11	6.1
5	11	24	19	8.1	7.0	7.5	45	137	143	84	11	5.9
6	13	24	18	8.3	7.1	7.6	52	163	132	77	11	5.3
7	14	23	18	8.4	7.1	7.6	56	201	122	68	11	4.9
8	13	22	19	8.4	7.2	7.7	57	224	106	64	10	4.7
9	12	23	19	8.5	7.3	7.7	59	268	93	59	9.6	4.5
10	14	21	25	8.5	7.3	7.7	62	324	86	54	8.8	4.5
11	15	23	31	8.4	7.4	7.6	68	364	77	50	8.5	4.4
12	21	33	26	8.2	7.4	7.6	75	372	93	47	8.5	4.4
13	23	29	24	8.2	7.5	7.5	82	368	79	44	8.5	4.4
14	21	26	23	8.1	7.6	7.5	86	344	69	41	8.1	4.5
15	22	25	22	8.0	7.6	7.5	85	318	63	39	7.5	4.5
16	20	23	21	7.9	7.7	7.8	94	270	57	36	7.3	4.5
17	19	22	20	7.8	7.8	10	110	248	52	33	7.0	4.5
18	19	21	20	7.7	7.9	12	123	238	48	31	7.0	4.9
19	18	21	19	7.6	8.0	11	130	220	45	29	6.7	7.0
20	19	22	18	7.4	8.0	12	115	205	42	27	7.0	7.0
21	19	22	17	7.2	8.0	13	110	200	45	26	6.7	14
22	19	27	17	7.1	8.0	14	150	202	44	24	6.4	7.5
23	18	27	16	7.0	8.0	14	196	203	41	23	6.1	11
24	18	26	16	6.9	8.1	14	308	209	52	22	5.9	11
25	19	25	16	6.8	8.1	14	222	203	79	21	5.6	7.8
26	22	24	15	6.8	7.8	13	179	212	95	20	5.6	7.8
27	20	23	14	6.8	7.8	14	165	205	145	19	5.3	6.4
28	20	22	13	6.8	7.6	15	176	181	134	18	5.6	6.1
29	19	22	11	6.8	-----	20	236	167	124	16	5.9	6.4
30	22	22	9.0	6.8	-----	25	185	264	111	16	5.6	11
31	29	-----	3.6	6.8	-----	31	-----	234	-----	15	5.3	-----
TOTAL	541	726	569.6	230.0	211.0	353.3	3,376	7,126	2,879	1,359	251.5	189.3
MEAN	17.5	24.2	18.4	7.42	7.54	11.4	113	230	96.0	43.8	8.11	6.31
MAX	29	33	31	8.5	8.1	31	308	372	199	96	14	14
MIN	10	21	3.6	4.5	6.9	7.5	35	132	41	15	5.3	4.4
CFSM	.76	1.05	.80	.32	.33	.50	4.89	9.99	4.17	1.91	.35	.27
IN.	.87	1.17	.92	.37	.34	.57	5.46	11.5	4.66	2.20	.41	.31
AC-FT	1,070	1,440	1,130	456	419	701	6,700	14,130	5,710	2,700	499	375

CAL YR 1968: TOTAL 12,126.0 MEAN 33.1 MAX 232 MIN 1.6 CFSM 1.44 IN 19.61 AC-FT 24,050
WTR YR 1969: TOTAL 17,811.7 MEAN 48.8 MAX 372 MIN 3.6 CFSM 2.12 IN 28.80 AC-FT 35,330

PEAK DISCHARGE (BASE, 170 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
4-24	0030	4.69	358	5-12	2130	4.89	412
4-29	0300	4.24	272	5-30	0900	4.27	286

KOOTENAI RIVER BASIN

12-3185. Kootenai River near Copeland, Idaho
(International gaging station)

LOCATION.--Lat 48°54'43", long 116°24'59", in NW¼NW¼SW¼ sec.12, T.64 N., R.1 W., Boundary County, on right bank at Andrews Ranch, 0.8 mile downstream from Mission Creek, 1.5 miles northwest of Copeland, and at mile 123.2.

DRAINAGE AREA.--13,400 sq mi, approximately.

PERIOD OF RECORD.--October 1927 to current year (elevation record only prior to May 1929). Published as "at Copeland" 1927-29. April 1925 to September 1927 (gage heights only) in reports of Water Survey of Canada, Department of Energy Mines and Resources.

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft above mean sea level, referred to bench mark T-10-1914, elevation, 1,791.49 ft (datum of 1929 is about 0.04 ft higher). Prior to Nov. 20, 1929, nonrecording or recording gage at site 0.8 mile upstream; datum 40.77 ft higher prior to Apr. 18, 1929. Gage readings have been reduced to elevations above mean sea level.

AVERAGE DISCHARGE.--40 years, 15,760 cfs (45.96 inches per year, 11,410,000 acre-ft per year); 15-year base period (1952-67), 16,960 cfs.

EXTREMES.--Current year: Maximum daily discharge, 88,300 cfs May 15; maximum elevation, 1,766.04 ft June 8; minimum daily discharge, 2,770 cfs Jan. 1; minimum elevation, 1,741.32 ft Mar. 27.
Period of record: Maximum daily discharge, 124,000 cfs May 30, 1948; maximum elevation, 1,772.55 ft June 6, 1961; minimum daily discharge, 1,350 cfs Feb. 8, 1936; minimum elevation, 1,738.52 ft Apr. 2, 3, 1944.

REMARKS.--Records excellent except for those affected by backwater from ice or no gage-height record Jan. 1 to Apr. 23, which are fair, and Sept. 3-17, which are good. Stage-discharge relation affected by backwater from Kootenay Lake. No drainage district dike failed during year. Discharge computed from slope and conveyance of the reach between stations at Klockmann Ranch and at Porthill, and discharge measurements made at station near Copeland. Records of water temperatures and suspended sediment loads for the water year 1969 are published in Part 2 of this report.

COOPERATION.--The station is maintained by the United States under agreement with Canada.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	9,990	9,350	7,520	2,770	4,100	4,600	15,800	39,600	74,100	58,600	16,500	7,950			
2	9,890	9,550	7,300	3,200	4,300	4,700	17,400	37,400	67,500	53,500	15,400	7,620			
3	9,530	9,450	6,880	3,700	4,500	4,800	17,900	34,900	64,600	51,000	14,800	7,140			
4	9,030	9,350	7,800	4,100	4,700	4,900	18,200	33,300	68,600	49,400	14,400	7,070			
5	8,870	9,130	8,130	4,800	4,800	5,000	18,000	32,300	74,800	49,400	13,800	6,920			
6	8,680	8,860	7,820	5,400	4,900	5,000	19,400	33,200	80,400	48,300	13,400	6,990			
7	8,580	8,530	7,030	6,000	5,000	5,000	22,100	36,800	85,500	45,700	13,000	6,990			
8	8,580	8,240	6,590	6,300	5,000	5,000	24,300	41,600	86,500	43,000	12,600	7,010			
9	8,460	7,940	6,700	6,500	5,000	5,000	24,300	46,300	81,000	40,200	12,600	6,620			
10	8,170	7,950	7,000	6,700	5,000	4,900	24,700	52,800	71,900	37,600	11,900	6,540			
11	7,890	7,620	7,970	6,700	4,900	4,900	25,700	62,100	64,700	35,900	11,500	6,200			
12	8,270	8,450	8,650	6,700	4,900	4,900	26,600	71,500	62,800	35,000	10,900	6,200			
13	8,990	9,550	8,560	6,600	4,800	4,900	26,900	79,700	61,400	34,300	10,800	5,920			
14	9,320	9,650	8,040	6,600	4,800	4,900	27,500	85,400	57,200	33,200	10,900	6,140			
15	9,420	9,060	7,180	6,400	4,800	4,900	28,100	88,300	50,100	30,500	10,700	6,330			
16	9,280	8,630	7,260	6,300	4,800	5,000	27,900	88,000	44,400	28,300	10,000	6,390			
17	9,230	8,400	7,380	6,100	4,900	5,100	28,200	80,800	41,000	26,400	10,000	6,770			
18	8,760	8,030	7,030	6,000	4,900	5,180	29,600	71,100	39,500	24,800	9,830	6,790			
19	8,600	7,730	7,000	5,700	4,900	6,000	32,300	64,800	39,400	23,500	9,980	6,720			
20	8,270	7,630	7,030	5,300	4,900	7,000	32,800	61,300	40,800	22,500	9,520	6,650			
21	8,440	7,160	6,490	4,900	4,800	7,300	31,900	58,100	44,500	21,800	9,030	6,830			
22	8,240	7,560	6,310	4,600	4,800	7,300	32,000	56,000	51,100	21,300	9,030	7,220			
23	8,110	8,970	6,250	4,300	4,700	7,200	32,300	56,400	54,600	21,200	8,840	7,310			
24	7,940	9,640	5,940	4,190	4,700	7,200	39,800	60,900	52,600	20,600	8,760	7,830			
25	7,840	9,340	6,120	4,100	4,700	7,200	52,800	66,900	52,100	19,800	8,760	8,040			
26	8,060	8,790	6,190	4,000	4,600	7,270	52,300	74,500	54,000	19,400	8,550	7,990			
27	8,650	8,300	5,850	4,000	4,600	7,360	46,600	81,700	60,200	19,600	8,760	8,250			
28	8,750	8,040	5,960	4,000	4,600	8,360	41,300	83,600	63,300	19,600	8,760	8,150			
29	8,920	7,720	4,880	4,000	-----	9,690	40,500	78,000	63,200	18,500	8,940	7,900			
30	8,810	7,450	4,220	4,000	-----	10,800	41,000	77,100	62,100	17,400	8,520	7,900			
31	9,250	-----	3,150	4,000	-----	12,400	-----	79,100	-----	17,000	8,340	-----			
TOTAL	270,820	256,220	210,230	157,960	133,400	193,760	898,200	1,913.5M	1,813.9M	987,300	338,820	212,380			
MEAN	8,736	8,541	6,782	5,095	4,764	6,250	29,940	61,730	60,460	31,850	10,930	7,079			
MAX	9,990	9,650	8,650	6,700	5,000	12,400	52,800	88,300	86,500	58,600	16,500	8,250			
MIN	7,840	7,160	3,150	2,770	4,100	4,600	15,800	32,300	39,400	17,000	8,340	5,920			
CFSM	.65	.54	.51	.38	.36	.47	2.23	4.61	4.51	2.38	.82	.53			
IN.	.75	.71	.58	.44	.37	.54	2.49	5.31	5.03	2.74	.94	.59			
AC-FT	537,200	508,230	417,000	313,300	264,600	384,300	1,782M	3,795M	3,598M	1,958M	672,000	421,200			
CAL YR 1968: TOTAL	5,659,850			MEAN 15,460		MAX 74,200		MIN 3,150		CFSM 1.15		IN 15.71		AC-FT 11,230,000	
WTR YR 1969: TOTAL	7,386,490			MEAN 20,240		MAX 88,300		MIN 2,770		CFSM 1.51		IN 20.50		AC-FT 14,650,000	

M Expressed in thousands.

12-3185. Kootenai River near Copeland, Idaho--Continued

ELEVATION, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.74	46.69	46.42	45.45	44.45	43.13	42.90	53.97	64.32	60.48	47.83	44.88
2	46.66	46.70	46.37	45.55	44.25	43.03	43.51	53.45	63.38	59.70	47.58	44.86
3	46.58	46.69	46.36	45.60	44.11	42.95	43.79	52.83	62.79	59.06	47.40	44.94
4	46.52	46.67	46.54	45.60	44.03	42.89	43.99	52.34	63.02	58.55	47.22	44.96
5	46.51	46.59	46.51	45.65	44.06	42.79	44.03	52.02	63.93	58.36	47.01	44.98
6	46.48	46.54	46.42	45.70	44.08	42.73	44.38	52.04	64.82	58.10	46.87	44.94
7	46.48	46.50	46.25	45.75	44.03	42.67	45.35	52.73	65.67	57.59	46.70	44.93
8	46.44	46.47	46.18	45.65	43.98	42.58	46.33	53.84	65.99	57.00	46.55	44.97
9	46.37	46.47	46.15	45.60	44.01	42.47	46.68	55.10	65.51	56.38	46.30	44.99
10	46.32	46.41	46.29	45.55	44.07	42.47	46.83	56.73	64.45	55.73	46.07	45.07
11	46.41	46.42	46.49	45.60	44.08	42.48	47.22	58.93	63.21	55.20	45.87	45.16
12	46.53	46.61	46.57	45.60	44.10	42.41	47.70	61.13	62.62	54.83	45.75	45.28
13	46.62	46.66	46.51	45.55	44.12	42.40	48.13	62.92	62.27	54.57	45.73	45.47
14	46.66	46.60	46.43	45.50	44.12	42.21	48.54	64.19	61.55	54.22	45.68	45.67
15	46.64	46.56	46.43	45.45	44.11	42.09	48.61	64.93	60.41	53.61	45.54	45.79
16	46.65	46.54	46.39	45.45	44.09	42.02	48.50	65.16	59.15	52.92	45.48	45.91
17	46.58	46.46	46.28	45.50	44.08	41.97	48.67	64.49	58.17	52.32	45.41	46.03
18	46.54	46.42	46.25	45.50	44.00	42.06	49.59	63.18	57.49	51.81	45.33	46.11
19	46.48	46.38	46.31	45.55	43.91	42.18	50.88	62.07	57.11	51.34	45.35	46.13
20	46.48	46.33	46.26	45.60	43.82	42.22	51.32	61.38	56.99	50.93	45.23	46.16
21	46.47	46.40	46.22	45.50	43.72	42.13	50.80	60.81	57.39	50.61	45.12	46.20
22	46.48	46.57	46.14	45.35	43.64	42.04	50.15	60.38	58.30	50.34	45.12	46.21
23	46.49	46.73	45.99	45.30	43.59	42.00	50.48	60.37	58.93	50.15	45.09	46.23
24	46.49	46.76	45.98	45.20	43.51	41.81	53.19	60.99	58.83	49.89	45.00	46.43
25	46.49	46.68	46.01	45.13	43.44	41.64	55.99	61.92	58.81	49.62	44.91	46.36
26	46.57	46.57	45.99	45.06	43.35	41.45	56.49	63.16	58.98	49.44	44.93	46.43
27	46.60	46.52	46.07	44.93	43.29	41.33	55.57	64.45	59.88	49.22	44.90	46.46
28	46.62	46.49	45.94	44.84	43.21	41.41	54.42	65.02	60.65	48.97	44.98	46.47
29	46.63	46.41	45.65	44.78	41.58	54.05	64.61	60.86	48.62	45.00	46.36	46.39
30	46.63	46.45	45.39	44.75	41.75	54.21	64.49	60.84	48.35	44.91	46.39	46.39
31	46.66	45.39	44.63	43.90	42.07	54.88	64.88	60.84	48.11	44.85	46.39	46.39
MEAN	46.54	46.54	46.20	45.38	43.90	42.22	49.08	59.82	61.21	53.42	45.80	45.69
MAX	46.74	46.76	46.57	45.75	44.45	43.13	56.49	65.16	65.99	60.48	47.83	46.47
MIN	46.32	46.33	45.39	44.63	43.21	41.33	42.90	52.02	56.99	48.11	44.85	44.86

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

KOOTENAI RIVER BASIN

12-3215. Boundary Creek near Porthill, Idaho
(International gaging station)

LOCATION.--Lat 48°59'50", long 116°34'05", in SW¼ sec.11, T.65 N., R.2 W., Boundary County, on left bank near mouth of canyon, 0.2 mile south of international boundary, 3 miles west of Porthill, and at mile 3.5.

DRAINAGE AREA.--97 sq mi, approximately.

PERIOD OF RECORD.--May 1928 to current year (no winter records 1929, 1930).

GAGE.--Water-stage recorder. Altitude of gage is 1,770 ft (from topographic map). Prior to Apr. 24, 1929, non-recording gage at site 140 ft upstream at different datum.

AVERAGE DISCHARGE.--39 years (1930-69), 194 cfs (27.16 inches per year, 140,600 acre-ft per year); 15-year base period (1952-67), 208 cfs.

EXTREMES.--Current year maximum discharge, 2,690 cfs May 30 (gage height, 5.61 ft); minimum daily, 25 cfs Sept. 12-14, 17 (gage height, 0.94 ft).

Period of record: Maximum discharge, 3,540 cfs June 2, 1968 (gage height, 6.00 ft); from rating curve extended above 2,000 cfs; minimum, 5 cfs sometime between Nov. 10 and Dec. 3, 1936; minimum gage height, 0.24 ft Nov. 22, 1952.

REMARKS.--Records good except those for Dec. 21 to Mar. 10, which are poor. No regulation or diversion above station.

COOPERATION.--This station is maintained by the United States under agreement with Canada.

REVISIONS (WATER YEARS).--WSP 1736: 1930(M), 1943(M), 1950(M), 1953(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	223	106	32	52	46	175	530	1,180	354	52	27
2	79	206	101	37	52	45	172	504	1,210	328	49	26
3	78	198	104	43	52	45	182	477	1,240	384	46	27
4	82	190	102	48	52	45	167	468	1,320	404	44	28
5	88	177	96	52	52	44	175	522	1,260	408	42	32
6	96	172	94	56	52	44	225	682	1,170	373	42	29
7	102	160	108	57	52	43	264	900	1,140	343	41	28
8	96	160	94	58	52	43	271	1,020	928	314	40	27
9	88	160	91	58	52	43	267	1,260	837	280	37	27
10	94	151	94	58	52	43	280	1,610	767	246	36	27
11	104	158	102	58	52	43	296	1,790	676	234	35	27
12	163	249	97	57	52	43	324	1,720	688	266	34	25
13	198	195	86	57	52	44	373	1,820	540	163	34	25
14	153	172	86	56	52	45	339	1,740	461	175	32	25
15	149	153	86	56	52	46	318	1,550	455	158	31	26
16	131	151	86	55	51	47	339	1,270	433	146	29	26
17	125	131	84	55	51	62	417	1,250	404	129	29	25
18	129	140	80	55	51	71	560	1,240	384	121	30	28
19	129	138	78	54	51	68	512	1,260	365	113	31	46
20	133	151	71	54	51	66	421	1,280	343	104	31	60
21	129	155	68	54	50	66	373	1,200	332	96	31	59
22	127	185	64	54	50	66	425	1,320	310	90	30	44
23	125	167	68	53	50	64	724	1,370	290	84	30	105
24	135	146	68	53	50	59	935	1,400	328	79	29	79
25	167	129	68	53	49	62	688	1,410	421	74	25	58
26	231	138	69	52	48	63	570	1,480	425	71	28	62
27	187	127	69	51	47	75	555	1,360	512	67	28	53
28	175	104	60	51	46	90	612	1,080	468	64	28	49
29	180	117	40	51	-----	97	781	1,180	455	59	28	49
30	290	104	25	51	-----	113	618	2,020	396	58	25	96
31	274	-----	30	52	-----	155	-----	1,380	-----	55	27	-----
TOTAL	4,321	4,807	2,475	1,631	1,425	1,886	12,358	38,093	19,758	5,810	1,062	1,245
MEAN	139	160	79.8	52.6	50.9	60.8	412	1,229	659	187	34.3	41.5
MAX	290	249	108	58	52	155	935	2,020	1,320	468	52	105
MIN	78	104	25	32	46	43	167	468	290	55	27	25
CFSM	1.44	1.65	.82	.54	.52	.63	4.25	12.7	6.79	1.93	.35	.43
IN.	1.66	1.84	.95	.63	.55	.72	4.74	14.6	7.58	2.23	.41	.48
AC-FT	8,570	9,530	4,910	3,240	2,830	3,740	24,510	75,560	39,190	11,520	2,110	2,470

CAL YR 1968: TOTAL 76,894 MEAN 210 MAX 2,480 MIN 20 CFSM 2.17 IN 25.48 AC-FT 152,500
WTR YR 1969: TOTAL 94,871 MEAN 260 MAX 2,020 MIN 25 CFSM 2.68 IN 36.37 AC-FT 168,200

PEAK DISCHARGE (BASE, 1,300 CFS).--May 13 (0015) 2,050 cfs (4.71 ft); May 30 (0700) 2,690 cfs (5.61 ft).

12-3220. Kootenai River at Porthill, Idaho
(International gaging station)

LOCATION.--Lat 49°00'00", long 116°30'10", in SW¼ sec.8, T.65 N., R.1 W., Boundary County, on right bank, 300 ft south of international boundary at Porthill, and at mile 105.63.

DRAINAGE AREA.--13,700 sq mi, approximately.

PERIOD OF RECORD.--May to July 1904 and October 1927 to March 1928 (elevations only), and April 1928 to current year in reports of Geological Survey. October 1924 to September 1927 (gage heights only) in reports of Water Survey of Canada, Department of Energy, Mines and Resources.

GAGE.--Water-stage recorder. Datum of gage is 1,700.00 ft above mean sea level referred to bench mark "10-M-1928", at elevation 1,767.68 ft. Gage readings have been reduced to elevations above mean sea level. Datum of 1929 and datum of Geodetic Survey of Canada, Pub. 24, 1951 edition, are 0.03 ft higher. Prior to May 17, 1928, non-recording gages at approximately same site. Datum of gages prior to July 28, 1928, 38.34 ft higher, except in 1904 when different datum was used.

AVERAGE DISCHARGE.--41 years, 16,110 cfs (15.98 inches per year, 11,680,000 acre-ft per year); 15-year base period (1952-67), 17,490 cfs.

EXTREMES.--Current year: Maximum daily discharge, 91,400 cfs May 15; maximum elevation, 1,762.00 ft June 8; minimum daily discharge, 2,800 cfs Jan. 1; minimum daily elevation, 1,740.90 ft Mar. 27, 28.
Period of record: Maximum daily discharge, 125,000 cfs June 1, 1948; maximum elevation, 1,767.61 ft June 7, 1961; minimum daily discharge, 1,380 cfs Feb. 8, 1936; minimum elevation, 1,738.21 ft Apr. 3, 1944.
Maximum elevation known, 1,772.7 ft in June 1894, present datum.

REMARKS.--Records excellent except those for Jan. 2 to Apr. 23, which are fair. Daily discharge represents entire flow passing international boundary, and is computed by adding tributary inflow for intervening area to flow at station near Copeland and correcting for channel storage between stations near Copeland and at Porthill. Boundary dike of Reclamation Farm and U.S. Forest Service roadway dike (south side of Boundary Creek) remained intact and flow of river was confined throughout year to main channel on which gage is located. Elevations affected by backwater from Kootenay Lake. No drainage dike failed during year. Records of water temperatures for water year 1969 are published in Part 2 of this report.

COOPERATION.--This station is maintained by the United States under agreement with Canada.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	ALG	SEP
1	10,200	9,940	7,820	2,800	4,330	4,750	16,000	41,200	77,600	59,800	16,800	7,990
2	10,100	10,100	7,600	3,240	4,540	4,870	17,600	39,100	71,500	55,000	15,700	7,680
3	9,780	9,990	7,180	3,790	4,720	4,960	18,300	36,500	68,400	52,700	15,000	7,160
4	9,270	9,880	8,000	4,230	4,860	5,040	18,600	34,800	71,900	51,000	14,600	7,120
5	9,110	9,700	8,400	4,910	4,920	5,170	18,500	33,900	77,100	50,700	14,000	6,990
6	8,960	9,360	8,120	5,520	5,020	5,140	19,900	35,000	82,400	49,500	13,600	7,080
7	8,860	8,980	7,410	6,130	5,160	5,140	22,400	38,800	87,500	47,000	13,200	7,060
8	8,860	8,690	6,880	6,490	5,160	5,150	24,600	43,600	88,500	44,300	12,800	7,060
9	8,730	8,380	6,970	6,680	5,120	5,170	24,800	48,700	83,500	41,400	12,800	6,670
10	8,450	8,390	7,190	6,870	5,100	5,000	25,400	55,700	74,900	38,700	12,100	6,560
11	8,130	8,050	8,160	6,840	5,020	5,000	26,300	64,800	67,700	37,000	11,700	6,210
12	8,650	9,030	8,880	6,850	5,020	5,050	27,200	73,800	65,300	35,800	11,000	6,190
13	9,490	10,100	8,830	6,770	4,920	5,040	27,700	82,500	63,200	35,000	10,900	5,880
14	9,720	10,200	8,320	6,770	4,930	5,090	28,200	88,500	59,200	33,900	11,000	6,090
15	9,830	9,490	7,410	6,570	4,940	5,070	29,000	91,400	52,400	31,300	10,900	6,330
16	9,630	9,120	7,520	6,440	4,940	5,160	28,900	91,000	46,700	29,100	10,100	6,390
17	9,600	8,790	7,660	6,220	5,040	5,290	29,200	84,500	43,000	27,100	10,100	6,760
18	9,130	8,480	7,270	6,140	5,070	5,340	30,600	75,500	41,200	25,400	9,940	6,810
19	8,980	8,130	7,180	5,820	5,070	6,140	33,000	69,100	40,700	24,100	10,100	6,820
20	8,630	8,040	7,240	5,430	5,080	7,170	33,700	65,300	41,900	23,000	9,640	6,780
21	8,800	7,550	6,700	5,080	4,980	7,510	33,200	61,700	45,200	22,200	9,150	6,980
22	8,580	7,980	6,520	4,810	4,970	7,530	33,500	59,800	51,300	21,700	9,100	7,330
23	8,450	9,360	6,510	4,470	4,860	7,410	34,000	60,000	54,800	21,500	8,930	7,580
24	8,300	10,000	6,140	4,370	4,870	7,450	40,800	64,000	53,500	21,000	8,870	7,950
25	8,290	9,730	6,290	4,280	4,860	7,440	52,600	69,600	53,200	20,100	8,870	8,230
26	8,640	9,220	6,380	4,180	4,770	7,540	53,400	77,000	55,000	20,500	8,600	8,120
27	9,140	8,670	5,990	4,190	4,760	7,610	48,700	83,800	60,900	19,900	8,840	8,370
28	9,210	8,340	6,180	4,180	4,750	8,590	43,600	85,700	63,800	19,900	8,790	8,270
29	9,400	8,080	5,120	4,160	-----	9,910	42,800	81,300	64,100	18,800	9,000	8,070
30	9,580	7,720	4,300	4,150	-----	11,100	42,600	82,300	63,100	17,700	8,630	8,150
31	9,970	-----	3,220	4,200	-----	12,700	-----	82,300	-----	17,300	8,440	-----
TOTAL	282,470	269,490	217,390	162,580	137,780	199,530	925,100	2,001,200	1,869,500	1,012,400	343,200	214,680
MEAN	9,112	8,983	7,013	5,245	4,921	6,436	30,840	64,550	62,320	32,660	11,070	7,156
MAX	10,200	10,200	8,880	6,870	5,160	12,700	53,400	91,400	88,500	59,800	16,800	8,370
MIN	8,130	7,550	3,220	2,800	4,330	4,750	16,000	33,900	40,700	17,300	8,440	5,880
CFSM	.67	.66	.51	.38	.36	.47	2.25	4.71	4.55	2.38	.81	.52
IN.	.77	.73	.59	.44	.37	.54	2.51	5.43	5.07	2.75	.53	.58
AC-FT	560,300	534,500	431,200	322,500	273,300	395,800	1,835M	3,969M	3,708M	2,008M	680,700	425,800

CAL YR 1968: TOTAL 5,862,060 MEAN 16,020 MAX 75,200 MIN 3,220 CFSM 1.17 IN 15.91 AC-FT 11,630,000
WTR YR 1969: TOTAL 7,635,320 MEAN 20,920 MAX 91,400 MIN 2,800 CFSM 1.53 IN 20.73 AC-FT 15,140,000

M Expressed in thousands.

KOOTENAI RIVER BASIN

12-3220. Kootenai River at Porthill, Idaho--Continued

ELEVATION, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.26	46.25	46.10	45.35	44.19	42.86	41.60	51.50	60.93	57.59	47.05	44.49
2	46.21	46.26	46.06	45.44	43.98	42.75	42.00	51.13	60.41	57.24	46.84	44.49
3	46.14	46.25	46.05	45.46	43.82	42.67	42.20	50.76	59.91	56.62	46.69	44.59
4	46.12	46.25	46.18	45.45	43.75	42.61	42.40	50.40	59.86	56.13	46.54	44.61
5	46.11	46.20	46.16	45.48	43.78	42.50	42.50	50.16	60.40	55.83	46.36	44.63
6	46.08	46.16	46.09	45.50	43.79	42.43	42.70	50.14	61.02	55.60	46.22	44.59
7	46.09	46.14	45.97	45.53	43.75	42.38	43.50	50.60	61.60	55.28	46.06	44.58
8	46.05	46.12	45.90	45.49	43.70	42.29	44.30	51.40	61.95	54.87	45.90	44.61
9	46.00	46.14	45.86	45.42	43.72	42.18	44.80	52.35	61.86	54.39	45.67	44.66
10	45.96	46.09	45.97	45.39	43.78	42.20	44.90	53.66	61.32	53.90	45.45	44.75
11	46.04	46.10	46.15	45.41	43.80	42.23	45.30	55.44	60.43	53.42	45.30	44.86
12	46.15	46.22	46.21	45.41	43.82	42.16	45.70	57.14	59.89	53.07	45.20	44.98
13	46.20	46.26	46.16	45.38	43.84	42.04	46.20	58.55	59.56	52.80	45.22	45.16
14	46.23	46.20	46.11	45.32	43.83	41.93	46.60	59.55	59.07	52.55	45.15	45.38
15	46.22	46.19	46.14	45.28	43.81	41.82	46.60	60.20	58.32	52.08	44.99	45.49
16	46.24	46.19	46.09	45.27	43.80	41.75	46.50	60.52	57.35	51.54	44.98	45.62
17	46.18	46.13	45.99	45.29	43.73	41.69	46.70	60.40	56.53	51.06	44.92	45.73
18	46.16	46.09	45.95	45.30	43.71	41.72	47.50	59.70	55.88	50.62	44.84	45.80
19	46.11	46.07	46.00	45.32	43.65	41.76	48.80	58.96	55.45	50.22	44.76	45.83
20	46.11	46.02	45.97	45.33	43.56	41.76	49.10	58.47	55.25	49.85	44.74	45.87
21	46.08	46.03	45.94	45.28	43.44	41.70	48.60	58.06	55.32	49.57	44.67	45.89
22	46.10	46.22	45.89	45.16	43.35	41.60	47.90	57.77	55.68	49.34	44.67	45.88
23	46.12	46.32	45.77	45.08	43.30	41.50	48.32	57.70	56.11	49.13	44.64	45.91
24	46.13	46.34	45.73	45.00	43.22	41.30	50.35	58.03	56.23	48.89	44.55	46.07
25	46.13	46.29	45.76	44.89	43.15	41.20	52.58	58.67	56.23	48.68	44.49	46.00
26	46.19	46.20	45.75	44.80	43.07	41.00	53.12	59.50	56.29	48.52	44.53	46.07
27	46.20	46.17	45.83	44.69	43.00	40.90	52.52	60.42	56.65	48.26	44.49	46.09
28	46.22	46.14	45.75	44.60	42.93	40.90	51.76	60.94	57.27	47.99	44.56	46.10
29	46.23	46.03	45.50	44.53	-----	40.95	51.50	60.94	57.63	47.73	44.56	46.02
30	46.23	46.12	45.23	44.49	-----	41.00	51.66	60.85	57.71	47.52	44.49	46.03
31	46.23	-----	45.23	44.37	-----	41.20	-----	61.09	-----	47.30	44.44	-----
MAX	46.26	46.34	46.21	45.53	44.19	42.86	53.12	61.09	61.95	57.59	47.05	46.10
MIN	45.96	46.02	45.23	44.37	42.93	40.90	41.60	50.14	55.25	47.30	44.44	44.49
MEAN	46.15	46.18	45.92	45.18	43.62	41.84	46.94	56.61	58.40	51.86	45.26	45.36

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

KOOTENAI RIVER BASIN

47

12-3225. Kootenay Lake at Kuskonook, British Columbia

LOCATION.--Lat 49°17'56", long 116°39'31", on east shore of lake at Kuskonook and at mile 74.5.

PERIOD OF RECORD.--April 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,735.20 ft above mean sea level, Geodetic Survey of Canada, datum of Pub. 24-A (1961), which is the same at Porthill as datum of 1929, supplementary adjustment of 1947, and 0.03 ft higher than datum in use at station Kootenai River at Porthill. Gage heights have been reduced to elevations above datum in use at station Kootenai River at Porthill. Prior to Apr. 25, 1938, nonrecording gage at same site at datum 3.00 ft higher.

EXTREMES.--Current year: Maximum elevation, 1,755.90 ft June 10; minimum, 1,740.04 ft Mar. 31.

Period of record: Maximum elevation, 1,762.42 ft June 9, 1961; minimum daily, 1,737.86 ft Apr. 5, 6, 1944.

REMARKS.--Elevation is subject to partial regulation by Corra Linn Dam below outlet. Diversions for irrigation of about 14,600 acres above Kootenay Lake.

COOPERATION.--This station is maintained by Canada under agreement with the United States.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.71	45.73	45.73	-	-	42.53	40.06	46.83	54.72	52.38	46.11	44.13
2	45.69	45.74	45.71	-	-	42.42	40.15	46.88	54.73	52.34	45.98	44.19
3	45.66	45.73	45.76	-	-	42.36	40.24	46.89	54.77	52.27	45.89	44.27
4	45.65	45.72	45.75	-	-	42.29	40.35	46.82	54.85	52.16	45.77	44.32
5	45.66	45.70	45.77	45.19	-	42.17	40.43	46.73	55.05	52.06	45.60	44.31
6	45.65	45.68	45.72	45.18	43.41	42.09	40.53	46.63	55.30	51.92	45.47	44.25
7	45.64	45.68	45.64	45.15	43.39	42.03	40.67	46.62	55.55	51.75	45.30	44.25
8	45.62	45.68	45.63	-	43.35	41.93	40.88	46.71	55.72	51.54	45.14	44.29
9	45.60	45.71	45.58	-	43.37	41.85	41.12	46.95	55.82	51.30	44.93	44.35
10	45.57	45.68	45.68	-	43.41	41.89	41.38	47.37	55.83	51.05	44.76	44.45
11	45.65	45.71	45.78	-	43.42	41.88	41.65	47.97	55.70	50.85	44.62	44.60
12	45.71	45.72	45.78	45.03	43.43	41.79	41.88	48.72	55.49	50.74	44.62	44.74
13	45.73	45.68	45.75	45.03	43.45	41.67	42.12	49.56	55.24	50.56	44.60	44.97
14	45.71	45.68	45.78	44.98	43.45	41.56	42.40	50.44	54.90	50.31	44.52	45.15
15	45.71	45.68	45.81	44.96	43.43	41.44	42.62	51.27	54.48	50.00	44.43	45.26
16	45.71	45.69	45.77	-	43.42	41.34	42.82	51.96	54.00	49.67	44.43	45.37
17	45.72	45.67	45.65	-	43.39	41.23	42.99	52.44	53.50	49.37	44.41	45.48
18	45.70	45.66	45.65	-	43.32	41.15	43.20	52.74	53.01	49.06	44.33	45.56
19	45.68	45.66	45.67	-	43.27	41.10	43.48	52.88	52.58	48.75	44.19	45.60
20	45.68	45.66	45.67	-	43.20	41.02	43.78	52.90	52.27	48.48	44.16	45.60
21	45.67	45.70	45.66	-	43.11	40.90	44.02	52.91	52.06	48.27	44.18	45.61
22	45.69	45.78	45.61	-	43.04	40.79	44.17	52.89	51.93	48.08	44.19	45.62
23	45.72	45.79	-	-	42.98	40.73	44.29	52.89	51.83	47.89	44.19	45.65
24	45.74	45.78	-	-	42.90	40.61	44.69	53.00	51.79	47.68	44.13	45.75
25	45.73	45.75	-	-	42.83	40.48	45.25	53.21	51.83	47.54	44.10	45.68
26	45.74	45.72	45.55	-	42.74	40.37	45.81	53.51	51.85	47.39	44.11	45.73
27	45.74	45.75	45.53	-	42.69	40.29	46.22	53.87	51.97	47.12	44.09	45.75
28	45.75	45.74	45.47	-	42.62	40.21	46.44	54.17	52.13	46.81	44.09	45.76
29	45.76	45.74	45.28	-	-----	40.14	46.61	54.37	52.28	46.63	44.10	45.70
30	45.76	45.75	-	-	-----	40.06	46.75	54.57	52.37	46.49	44.07	45.73
31	45.71	-----	-	-	-----	40.04	-----	54.68	-----	46.30	44.04	-----
MAX	45.76	45.79	45.81	45.19	43.45	42.53	46.75	54.68	55.83	52.38	46.11	45.76
MIN	45.57	45.66	-	-	-	40.04	40.06	46.62	51.79	46.30	44.04	44.13
MEAN	45.69	45.71	38.30	10.18	35.49	41.30	42.90	50.63	53.79	49.57	44.66	45.07
WATER YEAR 1968-69: MEAN			41.94	MAX	55.83	MIN	0.00					

NOTE.--Add 1,700 ft to obtain elevation above mean sea level.

PEND OREILLE RIVER BASIN

12-3920. Clark Fork at Whitehorse Rapids, near Cabinet, Idaho

LOCATION.--Lat 48°05'10", long 116°03'50", in NE¼SW¼ sec.27, T.55 N., R.3 E., Bonner County, on left bank at Cabinet, 0.4 mile downstream from Cabinet Gorge Dam, 1.7 miles downstream from Blue Creek, 6.5 miles south-east of Clark Fork, and at mile 149.5. Measuring cableway 0.4 mile downstream. Discharge computed at Whitehorse Rapids, 2.7 miles downstream.

DRAINAGE AREA.--22,067 sq mi, based on revised area of 22,006 sq mi for site near Heron.

PERIOD OF RECORD.--September 1928 to current year. Prior to October 1952, published as "near Heron, Mont."

GAGE.--Water-stage recorder. Datum of gage is 2,060.00 ft above mean sea level, levels by Washington Water Power Co. Prior to Oct. 30, 1928, nonrecording gage, and Oct. 30, 1928, to Apr. 8, 1952, water-stage recorder at site near Heron, 4 miles upstream at datum 28.00 ft higher prior to Jan. 2, 1931, and 18.00 ft higher thereafter. Apr. 9 to Sept. 30, 1952, nonrecording gage just upstream from present site at datum approximately 60.0 ft lower, and Oct. 1, 1952, to Sept. 30, 1964, water-stage recorder at datum 60.00 ft lower.

AVERAGE DISCHARGE.--41 years, 21,980 cfs (15,920,000 acre-ft per year); 15-year base period (1952-67), 24,140 cfs.

EXTREMES.--Current year: Maximum discharge, 85,100 cfs May 21 (gage height, 23.43 ft); minimum, 810 cfs Jan. 1 (gage height, 4.20 ft); minimum daily, 6,270 cfs Aug. 3.

Period of record: Maximum discharge, 153,000 cfs May 29 to June 1, 1948; maximum gage height, 50.97 ft May 31, 1948, site and datum then in use; minimum observed, 270 cfs Aug. 12, 1952 (discharge measurement), at present site during filling of Cabinet Gorge reservoir; minimum daily since reservoir filled, 762 cfs Sept. 2, 1962.

Maximum discharge known, 195,000 cfs June 1894 (elevation of floodmark at site about 4 miles upstream and 0.1 mile below "near Heron" site, 2,137.1 ft).

REMARKS.--Records excellent. Flow regulated by Hungry Horse Reservoir and Flathead Lake. Extreme diurnal fluctuation caused by powerplant at Cabinet Gorge Dam. Diversions above station for irrigation of about 354,000 acres. Discharge measurements indicate about 800 cfs ground-water inflow between Cabinet Gorge Dam and Whitehorse Rapids. Records given herein represent flow at Whitehorse Rapids, computed by adding 600 cfs to observed flows at the measuring cableway, and are considered comparable to records at former site near Heron, except for minor surface inflow from additional drainage area. To determine flow at Cabinet Gorge Dam, 800 cfs should be deducted from discharges published herein.

REVISIONS (WATER YEARS).--WSP 1182: 1936. WSP 1736: 1931, 1936(m), 1937.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23,200	20,000	17,400	6,360	17,000	27,200	28,400	56,300	60,200	51,500	21,200	17,600
2	26,700	23,000	19,800	11,900	14,700	19,600	33,400	56,000	58,600	48,100	16,200	12,200
3	23,000	16,100	18,400	12,900	21,200	25,300	36,200	54,000	53,200	44,200	6,270	15,000
4	15,400	19,500	20,300	14,700	21,300	23,800	34,700	51,300	51,300	41,200	10,200	14,100
5	16,600	17,100	19,600	13,000	20,400	21,400	38,700	50,600	46,600	40,000	12,200	15,100
6	17,800	17,900	19,000	19,500	22,500	21,800	37,500	49,700	43,100	39,200	23,200	14,400
7	16,000	18,100	16,900	22,800	21,400	19,000	40,100	50,900	52,100	37,800	20,500	16,200
8	14,900	19,500	15,000	25,000	21,100	18,700	42,300	51,800	52,100	35,600	11,100	14,200
9	16,000	18,100	19,000	28,300	18,000	13,500	43,600	54,400	48,200	30,300	10,300	14,100
10	17,900	20,000	19,600	21,800	21,200	19,700	42,000	58,200	49,400	34,500	8,380	15,700
11	18,700	24,600	18,800	19,400	16,300	23,300	42,300	63,100	45,700	33,900	14,700	19,200
12	15,300	21,900	19,700	19,500	18,800	26,800	42,200	65,400	43,400	28,800	16,200	19,600
13	13,300	20,400	19,100	19,200	20,800	23,700	45,500	70,000	40,700	28,200	19,000	16,700
14	15,800	18,700	18,800	22,500	19,300	21,900	43,000	72,200	36,900	30,400	17,200	18,200
15	14,400	15,100	17,800	24,900	19,900	16,300	48,100	74,800	29,600	31,500	16,500	18,800
16	18,300	11,800	16,600	19,800	19,000	13,300	45,000	76,600	27,200	26,000	9,110	18,500
17	17,600	10,700	17,600	21,000	20,500	17,400	46,200	76,200	27,000	25,300	7,050	18,100
18	20,800	15,300	21,100	20,000	15,600	18,600	46,900	75,000	32,200	20,800	11,900	19,800
19	16,800	16,300	17,700	18,900	18,800	18,400	48,600	73,900	35,300	20,300	13,500	20,500
20	15,400	18,100	20,100	21,700	20,400	22,600	46,900	72,800	31,600	21,600	12,700	16,500
21	15,800	18,400	19,700	20,400	19,400	25,200	45,200	73,800	31,000	20,500	15,000	14,500
22	12,100	19,800	12,500	21,100	17,500	24,000	50,200	65,900	24,200	23,100	15,200	14,200
23	15,400	18,800	14,700	18,200	15,100	22,800	45,000	58,500	29,400	23,900	14,600	15,000
24	16,400	20,500	14,700	13,700	18,400	22,500	53,700	57,300	30,200	16,800	14,700	14,900
25	18,600	18,400	14,400	10,200	19,100	23,200	60,000	55,600	38,500	12,900	19,200	12,100
26	16,200	17,900	15,500	15,500	23,400	20,300	61,300	56,000	44,100	17,400	17,300	10,900
27	15,800	18,400	15,700	14,000	21,900	19,700	60,000	56,900	45,500	10,600	19,900	8,690
28	15,900	16,700	13,800	19,500	29,000	23,600	58,400	50,300	48,900	18,100	21,200	11,300
29	17,800	15,700	10,200	19,500	-----	25,700	59,000	47,700	51,700	15,900	16,500	10,200
30	18,300	15,200	14,200	17,300	-----	19,800	58,000	51,900	51,100	13,900	7,260	11,400
31	18,200	-----	11,800	17,800	-----	28,800	-----	62,500	-----	16,700	13,000	-----
TOTAL	534,400	542,000	529,500	570,360	552,000	667,900	1,382,4M	1,889.6M	1,259.0M	859,000	451,270	457,690
MEAN	17,240	18,070	17,080	18,400	19,710	21,550	46,080	60,950	41,970	27,710	14,560	15,260
MAX	26,700	24,600	21,100	28,300	29,000	28,800	61,300	76,600	60,200	51,500	23,200	20,500
MIN	12,100	10,700	10,200	6,360	14,700	13,300	28,400	47,700	24,200	10,600	6,270	8,690
AC-FT	1,060M	1,075M	1,050M	1,131M	1,095M	1,325M	2,742M	3,748M	2,497M	1,704M	895,100	907,800

CAL YR 1968: TOTAL 8,152,250 MEAN 22,270 MAX 73,400 MIN 3,900 AC-FT 16,170,000
WTR YR 1969: TOTAL 9,695,120 MEAN 26,560 MAX 76,600 MIN 6,270 AC-FT 19,230,000

M Expressed in thousands.

12-3923. Pack River near Colburn, Idaho

LOCATION.--Lat 48°25'12", long 116°30'02", in NW¼ sec.32, T.59 N., R.1 W., Bonner County, on left bank, 50 ft downstream from bridge on U.S. Highway 95, 2.2 miles northeast of Colburn, 10 miles north of Sandpoint, and at mile 28.07.

DRAINAGE AREA.--124 sq mi.

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,130 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 332 cfs (36.36 inches per year, 240,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 4,370 cfs May 30 (gage height, 13.69 ft); minimum, 29 cfs Sept. 9-12 (gage height, 0.95 ft).

Period of record: Maximum discharge, 4,370 cfs May 30, 1969 (gage height, 13.69 ft); minimum, 15 cfs Sept. 2, 3, 1967 (gage height, 0.86 ft).

REMARKS.--Records good except those for winter period, which are fair. No regulation or diversion above station.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 21 to Feb. 22)

Oct. 1 to May 8				May 9 to Sept. 30			
1.3	45	5.0	654	0.9	26	5.0	654
2.0	115	7.0	1,150	1.3	51	7.0	1,150
3.0	256	9.0	1,790	2.0	117	10.0	2,170
				3.0	256	13.0	3,820

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	328	237	100	115	97	621	976	1,380	331	66	31
2	111	297	225	120	115	97	541	871	1,410	293	63	30
3	107	295	247	130	115	100	581	810	1,440	359	59	30
4	113	283	365	135	120	98	547	778	1,440	376	57	33
5	119	260	283	135	115	98	585	834	1,370	443	55	37
6	115	242	247	140	115	98	772	1,020	1,240	389	54	35
7	131	228	240	140	115	95	716	1,290	1,210	323	53	33
8	123	223	231	135	115	94	656	1,460	1,030	303	51	32
9	115	224	219	135	115	92	654	1,680	935	274	49	29
10	128	209	309	135	110	93	701	2,130	834	254	47	30
11	160	258	491	135	110	93	639	2,420	707	238	46	30
12	320	607	367	130	110	93	691	2,290	663	219	44	29
13	274	429	309	130	110	95	793	2,280	528	200	45	30
14	242	354	292	130	105	96	722	2,120	455	185	44	30
15	253	322	272	125	105	100	696	2,010	428	174	42	30
16	239	297	267	125	100	100	777	1,550	412	163	40	30
17	215	270	249	120	98	135	921	1,500	394	151	40	30
18	209	262	241	120	98	189	1,320	1,520	369	141	40	30
19	203	251	229	115	97	189	1,150	1,580	360	133	39	33
20	227	281	213	115	96	176	947	1,520	324	125	38	39
21	230	278	205	110	96	183	860	1,400	300	118	38	51
22	211	408	195	110	97	190	981	1,470	288	111	37	43
23	204	398	190	110	98	183	1,480	1,620	265	105	36	118
24	205	344	185	110	97	175	1,800	1,690	331	100	34	202
25	240	309	180	110	96	181	1,280	1,610	409	95	33	88
26	332	288	180	110	95	192	1,060	1,740	389	90	33	73
27	280	273	170	110	92	228	1,030	1,570	452	86	32	61
28	256	255	150	110	98	293	1,110	1,150	389	81	33	56
29	256	256	70	110	-----	332	1,500	1,100	487	75	32	56
30	367	262	48	110	-----	374	1,150	3,180	403	72	33	115
31	404	-----	80	110	-----	530	-----	2,050	-----	69	32	-----
TOTAL	6,511	8,991	7,186	3,760	2,948	5,089	27,281	49,219	20,642	6,076	1,345	1,494
MEAN	210	300	232	121	105	164	909	1,588	688	196	43.4	49.8
MAX	404	607	491	140	120	530	1,800	3,180	1,440	443	66	202
MIN	107	209	48	100	92	92	541	778	265	69	32	29
CFSM	1.69	2.42	1.87	.98	.85	1.32	7.33	12.8	5.55	1.58	.35	.40
IN.	1.95	2.70	2.16	1.13	.88	1.53	8.18	14.76	6.19	1.82	.40	.45
AC-FT	12,910	17,830	14,250	7,460	5,850	10,090	54,110	97,620	40,940	12,050	2,670	2,960
CAL YR 1968: TOTAL	126,646											
WTR YR 1969: TOTAL	140,542											
MEAN	346											
MAX	1,660											
MIN	40											
CFSM	2.79											
IN	37.98											
AC-FT	251,200											
MEAN	385											
MAX	3,180											
MIN	29											
CFSM	3.11											
IN	42.15											
AC-FT	278,800											

PEAK DISCHARGE (BASE, 1,450 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-24	0800	9.36	1,940	5-11	0500	11.34	2,760
4-29	1000	8.55	1,640	5-30	1400	13.69	4,370

PEND OREILLE RIVER BASIN

12-3925. Pend Oreille Lake at Hope, Idaho

LOCATION.--Lat 48°14'50", long 116°18'30", in lot 2, NW¼ sec.35, T.57 N., R.1 E., Bonner County, near Northern Pacific Railway station at Hope.

DRAINAGE AREA.--22,900 sq mi, approximately (natural drainage area above mouth of lake at Sandpoint).

PERIOD OF RECORD.--March 1914 to current year. Published as "at Sandpoint" 1914-22. Records published for both sites September 1921 to September 1922.

GAGE.--Water-stage recorder. Datum of gage is 2,000.00 ft above mean sea level; gage readings have been reduced to elevations above mean sea level. Prior to Oct. 1, 1921, nonrecording gage at Sandpoint at datum 42.18 ft higher. Oct. 1, 1921, to Sept. 30, 1929, nonrecording gage at present site at datum 45.47 ft higher than present datum. Oct. 1, 1929, to Sept. 30, 1950, water-stage recorder at present site at datum 0.20 ft lower than present datum.

EXTREMES.--Current year: Maximum elevation, 2,062.57 ft Aug. 14 or 15 (contents, 1,568,000 acre-ft); minimum, 2,055.74 ft Jan. 25-26 (contents, 938,100 acre-ft).

Period of record: Maximum elevation, 2,071.62 ft, present datum, June 9, 1948 (contents, 2,462,000 acre-ft); minimum, 2,046.27 ft, present datum, Feb. 17, 1936 (contents, 117,700 acre-ft).

Maximum elevation known, 2,075.88 ft, present datum, June 1894 (contents, 2,905,000 acre-ft).

REMARKS.--Regulation at Albeni Falls Dam beginning June 4, 1952. Contents shown is that above elevation 2,044.8 ft but does not include storage in Pend Oreille River above Albeni Falls Dam.

REVISIONS (WATER YEARS).--WSP 1122: 1946.

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

2,050	432,000
2,055	871,600
2,060	1,327,000
2,065	1,801,000

ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.31	59.41	55.97	55.99	56.41	56.59	56.49	57.96	61.15	62.40	62.29	62.23
2	62.35	59.61	56.02	55.98	56.35	56.51	56.50	57.90	61.18	62.36	62.30	62.22
3	62.36	59.68	56.17	56.02	56.42	56.52	56.53	57.83	61.18	62.34	62.10	62.23
4	62.33	59.78	56.20	56.10	56.46	56.46	56.39	57.58	61.30	62.32	62.03	62.22
5	62.28	59.81	56.23	56.13	56.45	56.37	56.29	57.54	61.33	62.31	62.00	62.23
6	62.28	59.80	56.23	56.36	56.45	56.33	56.22	57.47	61.24	62.28	62.22	62.23
7	62.18	59.79	56.18	56.55	56.43	56.29	56.16	57.54	61.33	62.26	62.36	62.30
8	62.06	59.83	56.11	56.61	56.43	56.28	56.17	57.53	61.43	62.35	62.33	62.18
9	61.95	59.77	56.08	56.77	56.35	56.16	56.11	57.59	61.51	62.36	62.28	61.98
10	61.97	59.73	56.13	56.75	56.31	56.16	56.05	57.74	61.65	62.39	62.24	61.86
11	61.95	59.93	56.18	56.69	56.22	56.25	56.07	57.98	61.74	62.42	62.29	61.82
12	61.86	59.97	56.19	56.61	56.20	56.38	56.15	58.23	61.86	62.35	62.37	61.77
13	61.66	59.89	56.17	56.56	56.22	56.43	56.15	58.50	61.96	62.23	62.48	61.70
14	61.48	59.74	56.15	56.53	56.20	56.41	56.37	58.82	61.99	62.24	62.56	61.57
15	61.40	59.46	56.15	56.55	56.20	56.30	56.38	59.10	61.94	62.34	62.53	61.48
16	61.27	59.03	56.09	56.48	56.19	56.09	56.35	59.36	62.00	62.32	62.45	61.40
17	61.11	58.57	56.07	56.41	56.18	56.07	56.40	59.55	62.12	62.34	62.33	61.28
18	61.06	58.22	56.15	56.32	56.09	56.06	56.50	59.68	62.30	62.35	62.30	61.23
19	60.88	57.89	56.14	56.28	56.11	56.08	56.64	59.78	62.37	62.35	62.30	61.18
20	60.77	57.58	56.13	56.25	56.14	56.18	56.66	59.86	62.34	62.42	62.27	61.09
21	60.59	57.29	56.15	56.21	56.17	56.32	56.60	60.13	62.37	62.43	62.29	60.93
22	60.31	57.15	56.03	56.14	56.14	56.38	56.66	60.27	62.23	62.47	62.32	60.75
23	60.10	57.01	55.99	56.00	56.09	56.38	56.66	60.20	62.24	62.48	62.36	60.63
24	59.92	56.89	55.98	55.85	56.07	56.36	56.91	60.15	62.28	62.41	62.44	60.53
25	59.80	56.69	56.02	55.77	56.09	56.35	57.21	60.08	62.41	62.33	62.48	60.42
26	59.61	56.50	56.09	55.94	56.19	56.33	57.46	60.09	62.55	62.32	62.42	60.35
27	59.52	56.31	56.11	55.98	56.25	56.30	57.64	60.14	62.51	62.23	62.49	60.25
28	59.42	56.10	56.14	56.13	56.45	56.35	57.79	60.16	62.53	62.28	62.45	60.20
29	59.39	56.00	56.09	56.27	-----	56.43	57.94	60.31	62.55	62.26	62.33	60.13
30	59.38	55.97	56.08	56.36	-----	56.34	57.99	60.66	62.47	62.16	62.17	60.10
31	59.37	-----	56.09	56.41	-----	56.45	-----	61.08	-----	62.18	62.12	-----
(†)	1,269	958.8	969.6	998.4	1,002	1,002	1,428	1,428	1,558	1,531	1,525	1,340
(‡)	-276.0	-310.2	+10.8	+28.8	+3.6	0	+140.0	+286.0	+130.0	-27.0	-6.0	-185.0
MAX	62.36	59.97	56.23	56.77	56.46	56.59	57.99	61.08	62.55	62.48	62.56	62.30
MIN	59.37	55.97	55.97	55.77	56.07	56.06	56.05	57.47	61.15	62.16	62.00	60.10
MEAN	61.06	58.45	56.11	56.29	56.26	56.32	56.65	59.06	61.94	62.33	62.32	61.35

CAL YR 1968..... † +415.3

WTR YR 1969..... ‡ -205.0

† Contents, in thousands of acre-feet, at end of month.

‡ Change in contents, in thousands of acre-feet.

NOTE.--Add 2,000 ft to obtain elevation above mean sea level.

12-3930. Priest Lake at outlet, near Coolin, Idaho

LOCATION.--Lat 48°29'30", long 116°53'00", in SE¼ sec.5, T.59 N., R.4 W., Bonner County, 0.5 mile east of outlet, 1.75 miles northwest of Coolin, and 44 miles upstream from mouth of Priest River.

DRAINAGE AREA.--572 sq mi.

PERIOD OF RECORD.--June 1911 to September 1913 (fragmentary gage-height records at Coolin, published as part of records for Priest River at outlet of Priest Lake, at Coolin), April 1928 to July 1950 (gage-height record only), August 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,434.64 ft above mean sea level. June 18, 1911, to Sept. 30, 1913, nonrecording gages at Coolin at different datums. Apr. 21, 1928, to Oct. 18, 1939, nonrecording gage at site 400 ft north of lake outlet at present datum.

EXTREMES.--Current year: Maximum gage height, 5.38 ft May 31 (contents, 176,170 acre-ft); minimum, 0.03 ft Mar. 14 (contents, 49,000 acre-ft).

Period of record: Maximum gage height, 6.46 ft May 29, 30, 1948 (contents, 202,200 acre-ft); minimum, -0.23 ft Mar. 18, 1962 (contents, 42,900 acre-ft).

REMARKS.--Flow from Priest Lake is regulated to hold lake at heights desirable for recreation interests during summer months and storage is released for power use downstream during winter months. Storage began Aug. 9, 1950. Prior to Aug. 9, 1950, some regulation resulted from logging operations in the outlet channel. Figures given herein represent contents above gage height of about -2 ft. Capacity table is based on area measured from Priest Lake quadrangle (scale 1:250,000) and reconnaissance survey of marginal areas and is only approximate.

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

0.0	48,300
5.0	167,000
6.0	191,100

GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.09	2.46	1.20		-	.16	.29	3.59	5.31	3.52	3.03	2.93
2	3.07	2.37	1.19		-	.15	.36	3.58	5.25	3.52	3.03	2.89
3	3.05	2.27	1.18		-	.13	.44	3.56	5.19	3.52	3.04	2.92
4	3.06	2.16	1.17		-	.13	.49	3.51	5.14	3.57	2.99	2.92
5	3.06	2.06	1.16		-	.14	.56	3.47	5.09	3.60	3.01	2.93
6	3.10	1.95	1.13		-	.13	.68	3.47	5.07	3.58	3.02	2.93
7	3.11	1.86	1.10		-	.13	.80	3.52	4.99	3.55	3.02	2.94
8	3.10	1.81	1.10		-	.11	.91	3.62	4.87	3.51	3.03	2.95
9	3.11	1.75	1.11		-	.10	1.00	3.77	4.74	3.47	3.04	2.95
10	3.15	1.68	1.16		.32	.09	1.08	3.99	4.59	3.40	3.03	2.96
11	3.22	1.74	1.19		.33	.08	1.15	4.28	4.46	3.33	3.00	2.97
12	3.23	1.73	1.18		.37	.06	1.21	4.52	4.32	3.30	3.01	2.97
13	3.27	1.70	1.16		.35	.05	1.32	4.80	4.09	3.22	3.02	2.94
14	3.29	1.66	1.15		.35	.05	1.41	4.95	3.89	3.15	3.03	2.95
15	3.31	1.63	1.13		.32	.07	1.48	5.07	3.71	3.11	3.00	2.94
16	3.29	1.58	1.13		.31	.06	1.55	5.10	3.54	3.05	3.01	2.94
17	3.25	1.53	1.11		.30	.07	1.69	5.08	3.37	3.02	3.00	2.95
18	3.24	1.49	1.12		.27	.08	1.89	5.07	3.21	3.02	3.00	2.97
19	3.22	1.45	1.07		.26	.08	2.07	5.05	3.09	3.00	2.99	3.00
20	3.23	1.41	1.02		.24	.08	2.18	5.04	2.98	2.99	2.99	3.05
21	3.19	1.39	.99		.24	.07	2.26	5.00	2.96	2.97	2.98	3.07
22	3.18	1.38	.97		.22	.09	2.36	4.98	2.96	2.96	2.99	3.12
23	3.16	1.37	.96		.21	.10	2.55	4.97	2.97	2.96	2.98	3.20
24	3.13	1.36	.97		.21	.09	2.89	4.95	3.03	2.95	2.94	3.23
25	3.12	1.33	.94		.20	.09	3.07	4.98	3.11	2.96	2.95	3.24
26	3.05	1.30	.93		.18	.10	3.19	5.04	3.22	2.97	2.94	3.24
27	2.90	1.27	.90		.18	.10	3.23	5.09	3.34	2.98	2.93	3.23
28	2.78	1.25	.86		.17	.12	3.33	5.02	3.40	2.98	2.93	3.22
29	2.67	1.27	.81		-----	.14	3.48	5.02	3.50	3.00	2.92	3.25
30	2.61	1.24	-		-----	.16	3.55	5.34	3.53	3.01	2.92	3.28
31	2.55	-----	-		-----	.22	-----	5.37	-----	3.02	2.93	-----
(†)	108,600	77,500	69,800	56,800	52,300	53,500	132,400	175,900	131,900	119,700	117,600	125,900
(‡)	-14,000	-31,100	-7,700	-13,000	-4,500	+1,200	+78,900	+43,500	-44,000	-12,200	-2,100	+8,300
MEAN	3.09	1.65	-	-	-	.10	1.75	4.54	3.96	3.20	2.99	3.04
MAX	3.31	2.46	-	-	-	.22	3.55	5.37	5.31	3.60	3.04	3.28
MIN	2.55	1.24	-	-	-	.05	.29	3.47	2.96	2.95	2.92	2.89

CAL YR 1968..... ‡ +20,320

WTR YR 1969..... ‡ +3,300

† Contents, in acre-feet, at end of month.

‡ Change in contents, in acre-feet.

53

LOCATION (revised).--Lat 48°12'31", long 116°54'49", in NW¼SW¼NW¼ sec.12, T.56 N., R.5 W., Bonner County, on right bank 500 ft downstream from Saddler Creek, 0.4 mile downstream from Lower West Branch, 2.7 miles north of Priest River, and at mile 3.8.

PERIOD OF RECORD.--June 1903 to April 1905, November 1910 to April 1911, May to December 1923, February 1929 to current year. Prior to October 1930, published as "at Priest River."

AVERAGE DISCHARGE.--41 years (1903-4, 1929-69), 1,670 cfs (1,210,000 acre-ft per year); 15-year base period (1952-67), 1,787 cfs.

REMARKS.--Records excellent except those for January and February, which are good. No diversion above station. Some regulation on tributary and, since Aug. 9, 1950, by low buttress and stoplog dam on Priest River 0.8 mile downstream from Priest Lake outlet.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,160	2,560	1,780	1,200	960	757	2,240	6,000	7,680	2,300	502	280
2	1,120	2,510	1,720	1,200	980	743	2,280	5,840	7,500	2,310	490	280
3	708	2,810	1,730	1,200	1,000	736	2,350	5,770	7,340	2,520	490	272
4	641	2,690	2,040	1,200	960	736	2,350	5,580	7,240	2,530	496	272
5	648	2,550	1,870	1,200	930	743	2,400	5,430	7,120	2,580	478	280
6	648	2,430	1,690	1,200	920	757	2,570	5,360	7,000	2,630	466	284
7	680	2,320	1,660	1,200	900	750	2,680	5,420	6,860	2,630	484	280
8	680	2,240	1,690	1,200	880	736	2,860	5,560	6,730	2,620	484	280
9	674	2,240	1,660	1,200	890	715	2,960	5,770	6,490	2,520	478	280
10	729	2,160	1,880	1,200	890	715	2,980	6,080	6,240	2,450	472	272
11	813	2,330	2,440	1,150	920	701	2,890	6,540	5,960	2,360	466	272
12	1,160	2,960	2,210	1,150	960	694	2,890	6,940	5,740	2,290	454	268
13	1,240	2,700	2,000	1,150	950	694	3,080	7,240	5,470	2,250	448	264
14	1,240	2,430	1,930	1,150	930	701	3,170	7,520	5,180	2,140	454	256
15	1,330	2,300	1,870	1,100	920	708	3,140	7,800	4,880	2,070	448	260
16	1,580	2,200	1,850	1,100	912	708	3,140	7,780	4,630	2,020	436	260
17	1,510	2,100	1,790	1,100	905	750	3,370	7,680	4,380	1,840	436	264
18	1,470	2,040	1,750	1,100	870	869	4,230	7,560	4,160	1,250	442	264
19	1,430	2,000	1,710	1,080	860	920	4,670	7,460	3,940	1,210	430	276
20	1,490	1,980	1,580	1,060	840	942	4,560	7,340	3,600	1,200	419	307
21	1,500	1,950	1,560	1,000	827	988	4,350	7,270	2,440	1,170	419	340
22	1,430	2,060	1,540	960	813	1,010	4,290	7,180	1,970	1,160	419	330
23	1,390	2,080	1,530	940	806	995	4,700	7,100	1,980	958	419	386
24	1,360	2,000	1,540	920	792	980	6,020	7,100	2,030	792	419	466
25	1,330	1,940	1,540	920	785	995	6,140	7,120	1,840	764	402	419
26	1,460	1,890	1,500	910	771	1,060	5,840	7,220	1,860	648	352	460
27	2,980	1,850	1,470	900	771	1,180	5,600	7,320	1,980	641	402	478
28	2,860	1,800	1,410	890	764	1,350	5,560	7,260	2,040	634	345	563
29	2,730	1,780	1,250	890	-----	1,480	6,200	7,120	2,070	550	325	615
30	2,660	1,850	700	900	-----	1,610	6,200	7,700	2,140	502	325	667
31	2,640	-----	1,000	910	-----	1,940	-----	7,870	-----	508	298	-----
TOTAL	43,291	66,750	51,890	33,280	24,706	28,663	115,710	210,930	138,490	52,047	13,438	10,195
MEAN	1,396	2,225	1,674	1,074	882	925	3,857	6,804	4,616	1,679	433	340

PEND OREILLE RIVER BASIN

12-3955. Pend Oreille River at Newport, Wash.

LOCATION.--Lat 48°11'00", long 117°02'00", in SE¼SW¼ sec.24, T.56 N., R.6 W. (Boise meridian), Bonner County, on left bank at Newport, 0.2 mile upstream from bridge on U.S. Highway 2, 0.2 mile east of Idaho-Washington State line, 1.6 miles downstream from Albeni Falls Dam, and at mile 88.5.

DRAINAGE AREA.--24,200 sq mi, approximately.

PERIOD OF RECORD.--June 1903 to September 1941, October 1952 to current year. Prior to October 1921, published as Clark Fork at Newport, Wash., October 1921 to September 1937, as Clark Fork at Priest River, Idaho, and October 1937 to September 1941, as Pend Oreille River at Priest River, Idaho.

GAGE.--Water-stage recorder. Datum of gage is 1,999.7 ft (revised) above mean sea level. Prior to Sept. 22, 1928, nonrecording gages at Priest River, Newport, or Metaline Falls at various datums (see description, WSP 532, p. 92). Sept. 22, 1928, to Sept. 30, 1935, at datum 2,040.14 ft above mean sea level, and Oct. 1, 1935, to Sept. 30, 1941, at datum 2,000 ft above mean sea level, water-stage recorder at Priest River. Since December 1952, auxiliary water-stage recorder 2.74 miles downstream from base gage.

AVERAGE DISCHARGE.--55 years (1903-41, 1952-69), 25,720 cfs (18,630,000 acre-ft per year); 15-year base period (1952-67), 27,700 cfs.

EXTREMES.--Current year: Maximum discharge, 85,000 cfs May 20; maximum gage height, 44.49 ft May 20; minimum discharge, 10,700 cfs Aug. 5; minimum gage height, 32.12 ft Sept. 7.

Period of record: Maximum discharge, 136,000 cfs June 15, 1913, June 21, 1933; minimum, 1,280 cfs Sept. 1, 1961.

Maximum stage known, about 64.0 ft in June 1894, present site and datum, from water-surface profiles (discharge, about 200,000 cfs).

REMARKS.--Records excellent except those for Dec. 30 to Feb. 14 and May 22 to July 1, which are good. Flow regulated at Albeni Falls Dam and affected by storage in Pend Oreille Lake (see sta 12-3925), Flathead Lake, Hungry Horse Reservoir, and several smaller reservoirs. Diversions above station for irrigation of about 354,000 acres. Records of chemical quality for the water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 532: 1903-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25,600	21,200	21,100	15,500	20,500	24,300	36,200	70,200	68,600	57,200	15,100	13,300
2	24,400	18,600	21,300	15,500	20,500	25,500	41,800	69,700	70,800	54,100	17,000	13,200
3	24,800	18,300	20,900	15,400	20,500	27,000	44,000	69,500	67,000	49,500	17,000	13,200
4	20,300	19,200	22,500	15,500	20,600	29,600	49,200	68,400	61,900	44,500	12,800	14,200
5	18,800	20,500	23,600	15,500	24,700	29,700	53,400	67,400	60,300	44,800	11,800	14,500
6	19,200	21,500	23,400	15,500	25,500	26,700	52,000	61,700	60,300	44,600	11,200	13,300
7	24,400	22,500	23,400	18,200	25,500	24,500	51,300	60,400	60,400	41,500	11,200	13,400
8	21,500	24,100	24,400	25,500	25,600	21,400	53,000	64,000	60,600	34,700	14,700	19,900
9	21,600	25,600	25,100	26,600	25,600	21,400	55,000	64,700	58,500	33,000	11,700	23,600
10	22,800	25,700	24,600	27,500	25,100	21,600	54,900	65,300	55,700	35,200	11,200	22,600
11	25,400	25,800	24,700	27,500	24,600	21,500	50,100	67,100	53,300	35,200	11,300	21,800
12	25,600	28,000	24,800	27,500	23,600	22,400	47,500	70,400	49,700	34,200	11,400	21,800
13	25,500	30,000	24,800	27,500	23,600	24,700	47,900	72,600	46,500	35,100	11,400	21,700
14	25,600	31,200	24,800	27,600	23,500	25,800	50,800	74,700	45,400	29,800	14,300	21,600
15	25,500	35,200	24,700	27,500	23,300	25,400	56,000	77,300	41,500	28,600	17,700	21,800
16	27,400	36,400	24,700	27,500	23,200	25,600	56,000	79,200	34,100	29,700	12,600	23,600
17	28,000	36,600	22,800	27,600	23,400	23,200	54,700	81,200	29,500	25,400	12,500	23,500
18	27,100	37,100	22,300	26,500	22,700	21,500	54,700	82,300	31,700	21,200	13,200	23,400
19	28,600	37,200	22,300	25,500	21,500	21,500	56,800	82,800	36,500	21,600	12,700	23,600
20	28,600	37,300	24,600	25,500	21,400	21,500	58,000	81,100	36,900	20,600	13,800	23,500
21	28,700	37,300	22,400	25,300	21,400	23,400	58,300	78,000	34,500	20,700	13,700	23,700
22	28,400	35,000	22,400	26,500	21,500	25,700	58,300	74,000	34,700	21,700	13,800	23,600
23	28,500	31,300	22,000	26,500	21,400	27,200	58,600	75,100	33,600	23,700	11,600	22,900
24	28,700	31,600	19,400	22,600	21,600	27,800	59,500	74,300	32,700	21,800	11,200	20,900
25	28,200	31,800	17,300	16,000	21,400	27,900	60,800	74,000	35,100	18,100	15,700	17,700
26	26,800	31,600	17,400	15,600	21,500	26,700	62,700	71,800	43,100	15,800	19,100	16,000
27	24,800	31,700	17,400	15,600	21,200	25,700	64,100	69,700	51,500	15,800	17,200	14,300
28	24,800	31,800	15,400	15,600	22,500	25,900	64,800	65,000	51,000	16,000	21,100	14,300
29	24,700	24,900	15,600	15,900	-----	29,100	66,900	57,300	54,400	16,900	22,400	16,600
30	24,800	21,400	16,200	17,500	-----	31,200	69,800	56,400	56,900	17,200	15,300	16,800
31	24,000	-----	16,500	19,000	-----	32,600	-----	59,000	-----	16,100	14,200	-----
TOTAL	783,100	860,400	672,600	677,000	637,400	788,200	1,647.7M	2,184.6M	1,456.7M	924,300	439,900	574,300
MEAN	25,260	28,680	21,700	21,840	22,760	25,430	54,920	70,470	48,560	29,820	14,190	19,140
MAX	28,700	37,300	25,100	27,600	25,600	32,600	69,800	82,800	70,800	57,200	22,400	23,700
MIN	18,800	18,300	15,400	15,400	20,500	21,400	36,200	56,400	29,500	15,800	11,200	13,200
AC-FT	1,553M	1,707M	1,334M	1,343M	1,264M	1,563M	3,268M	4,333M	2,889M	1,833M	872,500	1,139M

CAL YR 1968: TOTAL 9,116,610 MEAN 24,910 MAX 62,000 MIN 6,200 AC-FT 18,080,000
WTR YR 1969: TOTAL 11,646,200 MEAN 31,910 MAX 82,800 MIN 11,200 AC-FT 23,100,000

M Expressed in thousands.

12-4110. Coeur d'Alene River above Shoshone Creek, near Prichard, Idaho

LOCATION.--Lat 47°42'30", long 115°58'35", in NE&SW& sec.5, T.50 N., R.4 E., Shoshone County, in Coeur d'Alene National Forest, on left bank at Shoshone Creek ranger station, 0.1 mile downstream from Uranus Creek, 0.5 mile upstream from Shoshone Creek, 3.5 miles north of Prichard, and 200.0 miles upstream from mouth of Spokane River.

DRAINAGE AREA.--335 sq mi.

PERIOD OF RECORD.--December 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,485 ft (from river-profile map).

AVERAGE DISCHARGE.--18 years (1951-69), 745 cfs (30.20 inches per year, 539,800 acre-ft per year); 15-year base period 1952-67), 750 cfs.

EXTREMES.--Current year: Maximum discharge, 5,810 cfs Apr. 24 (gage height, 6.26 ft); minimum, 91 cfs Sept. 14 (gage height, 0.77 ft).

Period of record: Maximum discharge, 11,900 cfs Dec. 23, 1964 (gage height, 8.37 ft); maximum gage height, 11.55 ft Feb. 4, 1963 (backwater from ice); minimum discharge, 34 cfs Dec. 26, 1952 (gage height, 0.69 ft), but may have been less during period of ice effect.

REMARKS.--Records excellent except those for winter period, which are fair. No regulation or diversion above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 24 to Mar. 29; stage-discharge relation affected by ice
Jan. 16, 17, 19-23, Jan. 26 to Feb. 27, Mar. 1, 9-15)

0.7	82	3.0	1,340
1.0	147	4.0	2,480
1.5	310	5.0	3,840
2.0	555	6.2	5,700
2.5	890		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	467	726	410	350	290	2,560	2,740	1,650	306	148	98
2	133	462	658	430	345	299	2,350	2,360	1,380	287	147	98
3	130	478	778	470	335	295	2,340	2,120	1,210	291	145	98
4	135	467	1,670	520	330	318	2,180	1,960	1,080	306	143	105
5	140	440	1,460	800	320	338	2,040	2,050	970	302	140	114
6	140	420	1,150	1,700	315	342	2,640	2,460	890	314	138	112
7	160	405	954	2,100	310	330	2,680	3,320	810	283	128	102
8	155	395	882	1,700	305	306	2,350	3,920	726	272	127	98
9	145	450	775	1,350	300	290	2,180	4,040	664	262	126	96
10	158	445	796	1,080	295	290	2,340	4,400	628	248	125	95
11	220	522	1,180	970	290	290	2,310	4,720	582	237	121	95
12	556	1,380	1,260	842	285	295	2,250	4,360	550	234	121	93
13	664	1,950	1,170	789	280	300	2,470	3,950	506	224	121	93
14	555	1,560	1,080	726	275	310	2,620	3,660	472	217	118	93
15	555	1,250	962	640	270	320	2,410	3,250	450	214	116	93
16	628	1,030	906	610	265	350	2,350	2,870	425	207	112	93
17	560	826	789	580	260	450	2,600	2,510	400	204	109	93
18	506	733	733	550	260	640	3,560	2,320	390	195	109	95
19	462	658	680	520	255	670	4,340	2,230	368	190	109	100
20	506	616	640	510	250	640	3,810	2,100	354	185	107	112
21	946	604	610	485	255	652	3,150	1,920	342	180	105	128
22	1,070	1,220	570	470	265	719	3,100	1,760	364	175	105	121
23	890	2,070	540	450	275	740	4,630	1,720	354	170	102	130
24	733	1,900	520	425	280	670	5,700	1,730	390	165	102	152
25	634	1,570	500	415	280	646	4,560	1,610	410	165	100	118
26	577	1,280	470	400	280	691	3,430	1,460	382	162	96	105
27	522	1,100	440	390	280	906	2,830	1,340	386	160	96	98
28	478	946	420	380	287	1,320	2,610	1,180	372	158	98	95
29	445	858	400	370	-----	1,520	3,070	1,060	342	155	100	95
30	456	826	390	360	-----	1,720	3,210	1,640	322	152	100	105
31	516	-----	400	355	-----	2,080	-----	1,920	-----	150	100	-----
TOTAL	13,915	27,328	24,509	21,797	8,097	19,027	88,670	78,680	18,169	6,770	3,614	3,123
MEAN	449	911	791	703	289	614	2,956	2,538	606	218	117	104
MAX	1,070	2,070	1,670	2,100	350	2,080	5,700	4,720	1,650	314	148	152
MIN	130	395	390	355	250	290	2,040	1,060	322	150	96	93
CFSM	1.34	2.72	2.36	2.10	.86	1.83	8.82	7.58	1.81	.65	.35	.31
IN.	1.54	3.03	2.72	2.42	.90	2.11	9.84	8.73	2.02	.75	.40	.35
AC-FT	27,600	54,200	48,610	43,230	16,060	37,740	175,900	156,100	36,040	13,430	7,170	6,190

CAL YR 1968: TOTAL 259,965 MEAN 710 MAX 3,460 MIN 86 CFSM 2.12 IN 28.86 AC-FT 515,600
WTR YR 1969: TOTAL 313,699 MEAN 859 MAX 5,700 MIN 93 CFSM 2.57 IN 34.83 AC-FT 622,200
PEAK DISCHARGE (BASE, 3,600 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
4-19	0530	5.34	4,360	5-11	1400	5.64	4,820
4-24	1430	6.26	5,810				

SPOKANE RIVER BASIN

12-4130. Coeur d'Alene River at Enaville, Idaho

LOCATION.--Lat 47°34'20", long 116°15'10", in NW¼NE¼ sec.30, T.49 N., R.2 E., Shoshone County, on right bank 800 ft upstream from highway bridge, 0.2 mile northwest of Enaville Post Office, 1.1 miles upstream from South Fork, 3.5 miles downstream from North Fork, and 168.9 miles upstream from mouth of Spokane River.

DRAINAGE AREA.--895 sq mi.

PERIOD OF RECORD.--March 1911 to April 1913 (fragmentary), October 1939 to current year. Published as North Fork of Coeur d'Alene River at Enaville 1911-13.

GAGE.--Water-stage recorder. Datum of gage is 2,100.00 ft above mean sea level. Mar. 3, 1911, to Apr. 12, 1913, nonrecording gage at site 0.2 mile downstream at different datum. Oct. 18 to Dec. 22, 1939, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--30 years (1939-69), 1,950 cfs (29.58 inches per year, 1,413,000 acre-ft per year); 15-year base period 1952-67), 2,027 cfs.

EXTREMES.--Current year: Maximum discharge, 17,400 cfs Apr. 24 (gage height, 71.37 ft); minimum, 221 cfs Sept. 15, 16, 17 (gage height, 61.62 ft).

Period of record: Maximum discharge, 34,800 cfs Dec. 23, 1964 (gage height, 77.15 ft); minimum, 104 cfs Dec. 26, 1952 (gage height, 60.10 ft).

Flood in December 1933 reached a stage of 79.47 ft and that in April 1938 a stage of 78.16 ft, from local information concerning high-water marks.

REMARKS.--Records excellent except those for winter period, which are good. No appreciable regulation or diversion above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-25; stage-discharge relation affected by ice
Dec. 20-23, Dec. 28 to Jan. 3, Jan. 16 to Feb. 10)

61.4	210	66.0	5,260
62.0	565	68.0	9,050
63.0	1,340	70.0	13,800
64.0	2,380	71.1	16,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	448	1,230	1,960	1,180	1,060	805	7,530	6,880	4,400	898	393	254
2	429	1,190	1,820	1,250	1,020	805	7,080	5,940	3,710	850	387	243
3	411	1,230	1,920	1,280	980	828	6,930	5,320	3,310	850	381	243
4	405	1,220	4,460	1,410	960	874	6,590	4,910	3,060	858	370	260
5	417	1,170	4,230	2,330	950	938	5,950	4,910	2,830	835	375	271
6	417	1,130	3,300	5,070	940	986	7,570	5,670	2,590	850	375	271
7	448	1,100	2,790	5,970	940	954	7,970	7,490	2,430	798	370	260
8	454	1,080	2,400	5,990	930	898	6,740	9,230	2,180	754	364	249
9	429	1,270	2,160	4,580	930	850	6,140	9,600	2,010	719	348	243
10	442	1,330	2,080	3,690	930	850	6,380	10,300	1,860	691	342	243
11	539	1,500	2,940	3,160	906	866	6,470	11,300	1,720	663	331	238
12	1,160	3,300	3,370	2,940	922	858	6,240	10,700	1,590	642	326	232
13	1,670	4,910	3,190	2,580	938	874	6,860	9,470	1,470	628	326	232
14	1,480	4,110	2,990	2,330	874	906	7,310	8,630	1,360	600	320	227
15	1,510	3,310	2,550	2,180	843	970	6,590	7,570	1,270	579	315	227
16	1,840	2,750	2,370	2,050	843	1,000	6,160	6,680	1,200	565	304	221
17	1,630	2,270	2,110	2,000	828	1,150	6,590	5,890	1,150	546	298	221
18	1,450	1,960	1,930	1,880	813	1,780	8,900	5,450	1,100	533	304	240
19	1,330	1,790	1,830	1,820	783	2,040	11,400	5,280	1,070	520	304	260
20	1,370	1,690	1,720	1,770	783	2,010	10,500	4,990	1,030	500	298	300
21	2,180	1,650	1,650	1,700	768	2,010	8,430	4,580	986	487	293	330
22	2,490	2,880	1,570	1,630	805	2,150	7,870	4,250	1,000	474	287	330
23	2,180	5,340	1,500	1,570	850	2,250	11,900	4,190	1,020	468	282	350
24	1,850	5,040	1,440	1,500	843	2,060	16,600	4,370	1,100	455	276	387
25	1,660	4,170	1,410	1,450	835	1,960	13,400	4,250	1,150	448	271	353
26	1,530	3,340	1,340	1,380	835	2,050	9,400	3,950	1,080	435	265	309
27	1,400	2,880	1,300	1,320	805	2,460	7,310	3,680	1,100	429	265	287
28	1,310	2,450	1,220	1,270	783	3,640	6,570	3,290	1,070	423	265	271
29	1,230	2,220	1,160	1,230	-----	4,430	7,550	2,940	1,010	411	265	260
30	1,230	2,180	1,140	1,170	-----	4,990	8,060	4,140	954	399	265	282
31	1,310	-----	1,140	1,120	-----	6,120	-----	5,020	-----	393	265	-----
TOTAL	36,649	71,690	66,990	70,800	24,697	55,362	242,990	190,870	51,810	18,701	9,830	8,094
MEAN	1,182	2,390	2,161	2,284	882	1,786	8,100	6,157	1,727	603	317	270
MAX	2,490	5,340	4,460	5,990	1,060	6,120	16,600	11,300	4,400	898	393	387
MIN	405	1,080	1,140	1,120	768	805	5,950	2,940	954	393	265	221
CFSM	1.32	2.67	2.41	2.55	.99	2.00	9.05	6.88	1.93	.67	.35	.30
IN.	1.52	2.98	2.78	2.94	1.03	2.30	10.10	7.93	2.15	.78	.41	.34
AC-FT	72,690	142,200	132,900	140,400	48,990	109,800	482,000	378,600	102,800	37,090	19,500	16,050
CAL YR 1968: TOTAL	704,079				MEAN 1,924	MAX 12,600	MIN 261	CFSM 2.15	IN 29.26	AC-FT 1,397,000		
WTR YR 1969: TOTAL	848,483				MEAN 2,325	MAX 16,600	MIN 221	CFSM 2.60	IN 35.26	AC-FT 1,683,000		

PEAK DISCHARGE (BASE, 8,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-6	1245	68.41	9,950	4-24	1200	71.37	17,400
4-19	1030	69.03	11,600	5-11	1345	69.01	11,600

SPOKANE RIVER BASIN

57

12-4131.4 Placer Creek at Wallace, Idaho

LOCATION.--Lat 46°27'50", long 115°56'10", in NE¼SW¼ sec.34, T.48 N., R.4 E., Shoshone County, on right bank about 400 ft upstream from county road bridge, 0.3 mile downstream from West Fork, 0.4 mile south of Wallace city limits, and at mile 1.0.

DRAINAGE AREA.--14.9 sq mi.

PERIOD OF RECORD.--November 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,840 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 486 cfs Apr. 23 (gage height, 3.73 ft); minimum, 4.2 cfs Sept. 11 (gage height, 1.70 ft).

Period of record: Maximum discharge, 486 cfs Apr. 23, 1969 (gage height, 3.73 ft); minimum, 4.2 cfs Sept. 11, 1969 (gage height, 1.70 ft).

REMARKS.--Records good except those for February to March, which are fair. Water for town of Wallace is diverted above the station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 23 to May 14;
stage-discharge relation affected by ice Dec. 29 to Jan. 1)

1.8	3.9	2.7	68
2.0	9.1	3.0	121
2.2	19	3.3	200
2.4	34	3.8	420

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	14	23	17	20	15	119	154	101	21	8.2	4.8
2	6.9	14	22	18	19	15	113	134	92	21	8.2	4.3
3	6.6	17	28	19	19	15	121	125	85	21	7.9	4.5
4	7.1	15	35	21	19	16	99	125	78	20	8.2	5.4
5	7.1	14	29	30	19	16	111	146	72	19	8.8	5.4
6	8.5	14	24	52	18	16	159	191	66	19	8.5	5.2
7	8.3	14	22	80	17	16	115	256	61	18	7.9	4.8
8	7.1	14	24	72	17	16	92	288	54	17	7.3	4.3
9	6.9	19	23	62	17	15	90	288	52	16	7.0	4.1
10	8.5	17	30	56	16	16	108	312	47	16	7.0	4.1
11	13	23	43	52	16	17	97	345	42	16	6.7	3.9
12	29	46	36	44	16	17	101	320	41	16	6.7	4.1
13	21	41	32	49	16	16	119	312	37	14	7.0	4.3
14	16	34	29	44	15	16	109	272	36	13	6.2	4.5
15	21	30	27	42	15	17	99	212	33	13	5.7	4.3
16	19	26	26	40	14	19	107	164	33	12	5.9	4.3
17	16	23	25	38	14	21	123	154	31	12	5.9	3.9
18	15	22	24	36	14	23	156	159	30	12	5.9	4.3
19	14	21	23	34	14	25	161	151	28	11	5.9	5.0
20	15	21	21	31	14	27	149	134	27	11	5.7	5.4
21	15	23	21	30	14	30	137	128	27	11	5.4	5.4
22	16	85	20	28	14	31	191	128	28	10	5.4	5.0
23	16	74	20	27	14	30	410	134	28	9.8	5.2	6.5
24	16	52	21	26	14	26	345	144	28	9.8	5.2	6.7
25	17	40	21	26	14	26	240	139	26	9.8	5.0	5.0
26	17	34	21	26	14	30	178	132	27	9.8	5.0	4.8
27	16	31	20	24	14	48	159	119	25	9.5	4.8	4.8
28	16	27	19	23	14	69	172	103	24	9.1	5.0	4.8
29	15	27	17	22	-----	77	216	99	23	8.8	5.2	4.5
30	17	26	15	22	-----	97	178	149	22	8.8	4.8	6.5
31	17	-----	16	21	-----	117	-----	121	-----	8.5	5.0	-----
TOTAL	430.9	858	757	1,112	441	935	4,574	5,638	1,304	422.9	196.6	144.9
MEAN	13.9	28.6	24.4	35.9	15.8	30.2	152	182	43.5	13.6	6.34	4.83
MAX	29	85	43	80	20	117	410	345	101	21	8.8	6.7
MIN	6.6	14	15	17	14	15	90	99	22	8.5	4.8	3.9
AC-FT	855	1,700	1,500	2,210	875	1,850	9,070	11,180	2,590	839	390	287

CAL YR 1968: TOTAL 12,554.0 MEAN 34.3 MAX 177 MIN 5.9 AC-FT 24,900
WTR YR 1969: TOTAL 16,814.3 MEAN 46.1 MAX 410 MIN 3.9 AC-FT 33,350

PEAK DISCHARGE (BASE, 175 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-6	0700	3.29	175	5-11	0530	3.59	405
4-23	2115	3.73	486				

12-4133. South Fork Coeur d'Alene River at Smelterville, Idaho

LOCATION.--Lat 47°32'55", long 116°10'25", in SW¼ sec.35, T.49 N., R.2 E., Shoshone County, on left bank 490 ft downstream from county road bridge, 0.2 mile downstream from Government Gulch, 0.6 mile northwest of Smelterville Post Office, and at mile 5.

DRAINAGE AREA.--202 sq mi.

PERIOD OF RECORD.--December 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,220 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 3,570 cfs Apr. 23 (gage height, 7.72 ft); minimum, 95 cfs Sept. 12 (gage height, 3.23 ft).

Period of record: Maximum discharge, 3,570 cfs Apr. 23, 1969 (gage height, 7.72 ft); minimum, 94 cfs Sept. 28, 29, 1967; minimum gage height, 3.23 ft Sept. 12, 1969.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 25 to Sept. 30;
stage-discharge relation affected by ice Dec. 31 to Jan. 2, Jan. 14 to Feb. 4)

3.3	88	5.0	595
3.5	117	5.5	895
4.0	222	6.0	1,300
4.5	374	7.2	2,780

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	230	326	205	340	238	1,260	1,000	1,650	300	154	111
2	148	227	309	215	320	240	1,150	881	1,300	288	152	110
3	144	232	326	240	310	265	1,120	806	1,350	285	152	105
4	144	217	446	262	300	282	1,030	780	1,350	282	148	111
5	143	210	399	450	285	294	1,140	792	1,350	276	150	108
6	146	205	360	605	276	290	1,230	910	1,400	273	150	106
7	150	196	333	1,290	265	280	1,210	1,270	1,200	265	146	106
8	141	208	357	1,120	259	290	1,150	1,610	1,100	256	139	104
9	137	248	430	940	259	280	1,070	1,860	1,000	248	135	99
10	143	232	388	818	256	290	1,180	2,180	890	243	137	101
11	180	285	689	748	256	290	1,150	2,500	780	238	139	99
12	330	504	630	684	254	290	1,170	2,420	700	232	133	98
13	316	527	527	667	251	280	1,340	2,300	620	230	130	99
14	273	478	468	640	243	280	1,250	2,270	550	222	124	102
15	300	437	419	610	238	300	1,140	2,050	500	212	124	99
16	285	388	410	580	238	370	1,100	2,120	460	205	122	99
17	259	340	371	540	235	480	1,190	1,940	455	200	121	98
18	254	320	350	520	232	620	1,460	1,940	450	193	121	101
19	232	303	337	500	232	585	1,430	2,000	450	191	119	108
20	248	300	316	480	232	545	1,400	1,800	430	186	116	110
21	254	309	303	460	235	560	1,230	1,600	390	180	114	119
22	251	560	294	450	238	615	1,340	1,600	380	175	112	110
23	245	684	291	440	238	590	2,570	1,800	390	173	112	119
24	238	590	294	420	238	522	2,780	2,000	410	169	111	122
25	238	509	294	400	240	509	1,790	2,000	381	167	110	112
26	248	428	285	390	243	560	1,280	1,950	392	167	110	108
27	248	399	291	380	235	635	1,080	1,800	378	167	111	104
28	243	360	276	370	235	786	1,060	1,400	357	167	111	104
29	235	354	217	360	-----	895	1,250	1,350	340	162	114	104
30	248	340	193	355	-----	1,020	1,160	1,600	313	160	112	124
31	245	-----	195	350	-----	1,190	-----	2,000	-----	154	114	-----
TOTAL	6,818	10,620	11,024	16,489	7,183	14,671	39,710	52,529	21,716	6,666	3,943	3,200
MEAN	220	354	356	532	257	473	1,324	1,694	724	215	127	107
MAX	330	684	689	1,290	340	1,190	2,780	2,500	1,650	300	154	124
MIN	137	196	193	205	232	238	1,030	780	313	154	110	98
CFSM	1.09	1.75	1.76	2.63	1.27	2.34	6.55	8.39	3.58	1.06	.63	.53
IN.	1.26	1.96	2.03	3.04	1.32	2.70	7.31	9.67	4.00	1.23	.73	.59
AC-FT	13,520	21,060	21,870	32,710	14,250	29,100	78,760	104,200	43,070	13,220	7,820	6,350

CAL YR 1968:	TOTAL	141,946	MEAN	388	MAX	2,600	MIN	112	CFSM	1.92	IN	26.13	AC-FT	281,500
WTR YR 1969:	TOTAL	194,569	MEAN	533	MAX	2,780	MIN	98	CFSM	2.64	IN	35.82	AC-FT	385,900

PEAK DISCHARGE (BASE, 1,600 CFS)

NOTE.--No gage-height record Mar. 6-18, May 19 to June 24.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-7	1330	6.32	1,640	5-11	2230	7.19	2,660
4-23	2100	7.72	3,570				

SPOKANE RIVER BASIN

12-4134. West Fork Pine Creek near Pinehurst, Idaho

LOCATION.--Lat 47°25'30", long 116°17'50", in NE¼ sec.14, T.47 N., R.1 E., Shoshone County, on left bank 200 ft south of B.L.M. road, 1 mile upstream from Middle Fork, 5.5 miles upstream from the East Fork, 8.5 miles southwest of Pinehurst, and at mile 9.5.

DRAINAGE AREA.--10.8 sq mi.

PERIOD OF RECORD.--December 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,040 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 436 cfs May 11 (gage height, 3.45 ft); minimum, 2.2 cfs Sept. 14, 16, 17 (gage height, 1.54 ft).

Period of record: Maximum discharge, 436 cfs May 11, 1969; maximum gage height, 3.51 ft Feb. 20, 1968; minimum discharge, 2.2 cfs Sept. 14, 16, 17, 1969 (gage height, 1.54 ft).

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

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 29)

1.5	1.7	2.4	78
1.6	3.5	2.7	144
1.8	13	3.0	243
2.1	36	3.3	375

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	22	28	13	20	10	97	101	119	12	5.0	2.9
2	5.9	21	26	15	20	9.8	87	80	101	12	5.0	2.6
3	5.4	21	27	18	20	9.8	93	68	95	11	5.0	2.6
4	5.9	21	29	21	19	11	80	65	89	11	5.0	2.6
5	5.4	20	26	30	18	11	82	80	78	11	5.0	2.6
6	5.9	20	23	60	17	11	117	134	68	10	5.0	2.6
7	5.0	19	22	120	16	11	93	214	58	9.8	4.6	2.6
8	4.6	19	21	92	15	10	73	274	52	9.2	4.6	2.6
9	4.6	21	20	80	15	9.8	74	291	45	9.2	4.6	2.4
10	5.0	25	24	70	14	9.2	91	350	39	9.2	4.6	2.4
11	7.7	40	35	60	14	9.2	84	360	34	8.7	4.6	2.4
12	17	78	31	55	13	9.2	80	330	30	8.7	4.6	2.4
13	18	70	28	49	13	9.2	95	295	27	8.2	4.6	2.4
14	18	57	26	45	13	9.8	91	259	24	7.7	4.3	2.2
15	22	47	25	40	13	9.8	82	218	21	7.2	4.3	2.4
16	20	40	25	37	13	9.8	91	190	19	7.2	3.9	2.2
17	19	35	24	35	13	12	124	177	18	6.8	3.9	2.2
18	18	32	23	33	12	15	162	187	17	7.2	3.9	2.4
19	18	29	22	32	12	15	142	190	16	6.8	3.9	2.4
20	18	28	21	30	12	15	112	159	16	6.8	3.9	2.6
21	17	28	20	29	12	15	91	150	15	6.3	3.5	2.9
22	18	86	20	28	11	16	119	153	15	5.9	3.5	2.6
23	17	93	20	27	11	16	247	171	15	5.9	3.5	3.5
24	18	70	20	26	11	15	274	177	16	5.9	3.5	2.9
25	20	54	19	25	11	15	177	171	15	5.4	3.2	2.9
26	23	46	19	24	11	17	124	153	14	5.9	3.2	2.9
27	24	40	19	23	10	25	101	126	14	5.9	3.2	2.9
28	24	35	18	23	10	35	112	95	13	5.9	3.2	2.9
29	24	33	15	22	-----	44	162	95	13	5.4	3.2	2.9
30	25	30	12	21	-----	61	134	207	12	5.4	2.9	3.2
31	23	-----	12	21	-----	93	-----	162	-----	5.0	2.9	-----
TOTAL	462.7	1,180	700	1,204	389	568.6	3,491	5,682	1,108	242.6	126.1	79.1
MEAN	14.9	39.3	22.6	38.8	13.9	18.3	116	183	36.9	7.83	4.07	2.64
MAX	25	93	35	120	20	93	274	360	119	12	5.0	3.5
MIN	4.6	19	12	13	10	9.2	73	65	12	5.0	2.9	2.2
CFSM	1.38	3.64	2.09	3.60	1.29	1.70	10.8	17.0	3.42	.72	.38	.24
IN.	1.59	4.06	2.41	4.15	1.34	1.96	12.02	19.57	3.82	.84	.43	.27
AC-FT	918	2,340	1,390	2,390	772	1,130	6,920	11,270	2,200	481	250	157

CAL YR 1968: TOTAL 11,294.2 MEAN 30.9 MAX 281 MIN 2.4 CFSM 2.86 IN 38.89 AC-FT 22,400
WTR YR 1969: TOTAL 15,233.1 MEAN 41.7 MAX 360 MIN 2.2 CFSM 3.86 IN 52.46 AC-FT 30,210

PEAK DISCHARGE (BASE, 200 CFS)

NOTE.--No gage-height record Dec. 30 to Feb. 17.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-24	0500	3.21	316	5-30	0700	2.98	221
5-11	0200	3.45	436				

12-4135. Coeur d'Alene River near Cataldo, Idaho

LOCATION.--Lat 47°33'50", long 116°18'25", in NW¼SW¼ sec.26, T.49 N., R.1 E., Shoshone County, on left bank 1.5 miles upstream from Cataldo, 3.6 miles downstream from South Fork, and 164.2 miles upstream from mouth of Spokane River.

DRAINAGE AREA.--1,220 sq mi, approximately.

PERIOD OF RECORD.--April 1911 to December 1912, July 1920 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,097.16 ft above mean sea level. Apr. 25, 1911, to Dec. 31, 1912, nonrecording at site 300 ft downstream at different datum. July 29, 1920, to Oct. 10, 1925, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--50 years, 2,527 cfs (28.13 inches per year, 1,831,000 acre-ft per year); 15-year base period (1952-67), 2,696 cfs.

EXTREMES.--Current year: Maximum discharge, 18,600 cfs Apr. 24 (gage height, 47.12 ft); minimum, 327 cfs Sept. 12 (gage height, 38.81 ft).

Period of record: Maximum discharge, 67,000 cfs Dec. 22 or 23, 1933 (gage height, 56.9 ft, from floodmark), from rating curve extended above 24,000 cfs; minimum, 122 cfs Dec. 4, 1929; minimum gage height, 37.03 ft Sept. 6, 1931.

REMARKS.--Records good except those for January to March, which are fair. No appreciable regulation or diversion above station.

REVISIONS (WATER YEARS).--WSP 1396: 1945. WSP 1736: 1934(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 16 to Dec. 13; stage-discharge relation affected by
ice Dec. 29 to Jan. 6, Jan. 25 to Feb. 7)

Oct. 1 to Nov. 15			Nov. 16 to Sept. 30		
39.2	585	38.7	282	42.0	5,180
39.5	855	39.0	456	43.0	8,150
40.0	1,440	39.5	850	44.0	10,800
41.0	3,120	40.0	1,380	46.9	18,100
42.1	5,950	41.0	2,920		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	697	1,660	2,690	1,700	1,450	1,020	10,600	8,930	5,960	1,310	555	367
2	653	1,610	2,510	1,800	1,400	1,080	10,000	7,720	4,940	1,250	548	361
3	628	1,650	2,580	1,900	1,400	1,180	9,980	6,830	4,450	1,220	534	355
4	619	1,650	5,230	2,000	1,400	1,300	8,990	6,080	4,230	1,230	534	379
5	628	1,580	5,040	2,400	1,350	1,450	8,300	6,080	3,940	1,200	534	390
6	619	1,520	3,850	3,000	1,350	1,550	10,700	7,310	3,620	1,200	534	390
7	662	1,470	3,300	8,450	1,340	1,450	10,900	9,830	3,420	1,150	534	379
8	653	1,450	3,100	8,700	1,330	1,350	9,080	11,800	3,100	1,070	520	361
9	610	1,710	2,830	6,210	1,380	1,300	8,200	12,300	2,880	1,050	514	344
10	619	1,780	2,870	4,860	1,300	1,220	8,550	13,100	2,690	990	488	344
11	751	1,980	4,180	4,110	1,280	1,190	8,580	14,200	2,490	960	488	338
12	1,540	3,910	4,450	3,500	1,340	1,280	8,320	13,900	2,290	940	482	332
13	2,150	5,870	3,900	3,460	1,360	1,330	9,140	12,600	2,140	922	469	338
14	1,940	5,030	3,580	3,340	1,300	1,390	9,740	11,800	1,980	877	456	338
15	2,000	4,170	3,240	3,050	1,200	1,480	8,580	10,600	1,850	859	450	338
16	2,380	3,770	3,120	2,850	1,150	1,520	8,020	9,260	1,740	841	438	338
17	2,120	3,030	2,850	2,700	1,100	1,830	8,580	8,120	1,680	805	432	332
18	1,930	2,740	2,650	2,470	1,080	2,810	11,300	7,690	1,620	787	414	338
19	1,800	2,560	2,510	2,430	1,060	3,050	13,500	7,490	1,570	778	414	373
20	1,820	2,400	2,240	2,310	1,040	2,920	12,700	6,930	1,540	733	408	384
21	2,560	2,360	2,020	2,220	1,060	2,920	10,800	6,210	1,500	706	396	438
22	2,880	3,740	2,010	2,020	1,080	3,100	10,400	5,760	1,520	697	390	438
23	2,590	6,730	1,980	1,880	1,100	3,160	14,100	5,820	1,540	679	390	438
24	2,310	6,270	1,980	1,700	1,120	2,940	18,000	6,140	1,620	662	390	494
25	2,080	5,100	1,960	1,650	1,120	2,830	15,700	6,140	1,660	662	384	462
26	1,960	4,110	1,850	1,600	1,100	2,970	12,000	5,730	1,580	638	379	420
27	1,860	3,680	1,830	1,550	1,080	3,600	9,620	5,320	1,600	622	379	390
28	1,750	3,200	1,810	1,500	1,040	5,130	8,600	4,600	1,550	614	379	373
29	1,680	2,960	1,650	1,500	-----	6,140	10,000	4,110	1,460	598	379	367
30	1,690	2,920	1,600	1,500	-----	7,100	10,600	5,900	1,400	583	379	396
31	1,760	-----	1,600	1,450	-----	8,720	-----	7,200	-----	569	373	-----
TOTAL	47,939	92,610	87,010	89,810	34,310	80,310	313,580	255,500	73,560	27,202	13,964	11,335
MEAN	1,546	3,087	2,807	2,897	1,225	2,591	10,450	8,242	2,452	877	450	378
MAX	2,880	6,730	5,230	8,700	1,450	8,720	18,000	14,200	5,960	1,310	555	494
MIN	610	1,450	1,600	1,450	1,040	1,020	8,020	4,110	1,400	569	373	332
CFSM	1.27	2.53	2.30	2.37	1.00	2.12	8.57	6.76	2.01	.72	.37	.31
IN.	1.46	2.82	2.65	2.74	1.05	2.45	9.56	7.79	2.24	.83	.43	.35
AC-FT	95,090	183,700	172,600	178,100	68,050	159,300	622,000	506,800	145,900	53,950	27,700	22,480
CAL YR 1968: TOTAL	925,019			MEAN 2,527	MAX 16,100	MIN 398		CFSM 2.07	IN 28.20	AC-FT 1,835,000		
WTR YR 1969: TOTAL	1,127,130			MEAN 3,088	MAX 18,000	MIN 332		CFSM 2.53	IN 34.36	AC-FT 2,236,000		

PEAK DISCHARGE (BASE, 11,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-7	1930	44.15	11,300	5-11	1700	45.49	14,400
4-24	1430	47.12	18,600				

SPOKANE RIVER BASIN

12-4137. Latour Creek near Cataldo, Idaho

LOCATION.--Lat 47°28'10", long 116°26'15", in NW¼ sec.34, T.48 N., R.1 W., Shoshone County, on right bank 5 ft upstream from B.L.M. road bridge, 0.4 mile upstream from Baldy Creek, at mile 6.5, and 7.8 miles southwest of Cataldo.

DRAINAGE AREA.--24.8 sq mi.

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,620 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 596 cfs Jan. 7 (gage height, 5.65 ft); maximum gage height, 5.78 ft May 10; minimum discharge, 5.2 cfs Sept. 17 (gage height, 3.46 ft).
Period of record: Maximum discharge, 1,400 cfs Feb. 19, 1968 (gage height, 7.46 ft); minimum, 3.9 cfs Sept. 4-8, 1967 (gage height, 3.75 ft).

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 23, 24, May 8 to July 2; stage-discharge relation affected by ice Dec. 29 to Jan. 3, Jan. 14-17, Jan. 23 to Feb. 2)

3.4	3.9	4.3	96
3.6	12	4.6	168
3.8	25	5.0	310
4.0	46	5.5	510

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	32	54	37	42	22	201	183	195	20	10	6.5
2	14	31	47	40	37	22	208	174	168	20	9.7	6.5
3	13	33	56	46	34	23	225	160	163	21	9.7	6.1
4	13	33	90	56	33	24	215	139	141	20	9.7	6.8
5	13	30	71	180	33	25	205	141	127	20	10	7.1
6	13	29	57	236	32	27	208	180	108	18	11	6.8
7	12	27	50	458	29	24	189	251	98	19	10	6.1
8	12	29	54	212	29	24	183	330	92	18	10	6.1
9	11	45	52	189	30	24	177	386	84	17	9.7	6.1
10	13	44	73	144	28	24	177	474	65	16	9.7	6.5
11	18	65	139	117	29	26	168	494	57	17	9.7	6.5
12	47	180	108	106	31	24	171	418	49	17	9.7	6.1
13	44	146	86	111	29	24	177	414	43	16	9.7	5.8
14	34	104	78	97	27	24	171	362	35	16	9.3	6.1
15	46	88	70	93	27	24	165	266	30	16	8.9	6.1
16	39	68	71	90	27	25	160	240	27	15	8.9	6.1
17	31	57	63	85	25	44	171	225	26	14	8.9	5.5
18	34	53	61	82	25	63	240	240	26	14	8.9	6.5
19	31	50	61	78	25	57	198	225	24	14	8.4	8.9
20	34	52	54	73	25	52	180	198	23	13	8.0	9.7
21	36	60	52	68	24	52	186	180	24	13	8.0	12
22	35	196	50	66	24	57	201	183	21	13	7.5	8.9
23	34	208	49	64	24	58	394	189	23	12	7.5	10
24	35	152	54	62	24	56	442	222	33	12	7.1	9.7
25	40	113	56	60	24	56	278	205	26	12	6.8	8.0
26	45	94	56	58	24	66	222	186	24	12	7.1	7.1
27	43	80	56	56	22	90	186	189	24	12	7.1	7.1
28	39	66	54	54	21	124	183	160	22	11	7.5	7.1
29	35	63	46	51	-----	141	225	157	22	10	7.1	7.1
30	39	60	32	48	-----	165	212	236	21	11	6.8	8.9
31	36	-----	34	45	-----	205	-----	212	-----	11	6.5	-----
TOTAL	903	2,288	1,934	3,162	784	1,672	6,318	7,619	1,821	470	268.9	217.8
MEAN	29.1	76.3	62.4	102	28.0	53.9	211	246	60.7	15.2	8.67	7.26
MAX	47	208	139	458	42	205	442	494	195	21	11	12
MIN	11	27	32	37	21	22	160	139	21	10	6.5	5.5
CFSM	1.17	3.08	2.52	4.11	1.13	2.17	8.49	9.91	2.45	.61	.35	.29
IN.	1.35	3.43	2.90	4.74	1.18	2.51	9.47	11.43	2.73	.70	.40	.33
AC-FT	1,790	4,540	3,840	6,270	1,560	3,320	12,530	15,110	3,610	932	533	432

CAL YR 1968: TOTAL 22,402.9 MEAN 61.2 MAX 1,130 MIN 5.8 CFSM 2.47 IN 33.60 AC-FT 44,440
WTR YR 1969: TOTAL 27,457.7 MEAN 75.2 MAX 494 MIN 5.5 CFSM 3.03 IN 41.18 AC-FT 54,460

PEAK DISCHARGE (BASE, 350 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-7	0500	5.65	596	5-10	2300	5.78	564
4-24	0100	5.76	555				

12-4145. St. Joe River at Calder, Idaho

LOCATION.--Lat 46°16'30", long 116°11'15", in NW¼SE¼ sec.3, T.45 N., R.2 E., Shoshone County, on right bank 150 ft southwest of Chicago, Milwaukee, St. Paul, and Pacific Railroad station at Calder, and at mile 42.9.

DRAINAGE AREA.--1,030 sq mi, approximately.

PERIOD OF RECORD.--April 1911 to September 1912 (published as "near Calder"), July 1920 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,156.76 ft above mean sea level, or 2,160 ft above mean sea level, datum of Geological Survey as given in Bulletin 567. Apr. 14, 1911, to Sept. 30, 1912, nonrecording gage at site 2.5 miles downstream at different datum. July 13 to Dec. 21, 1920, nonrecording gage at present site and at datum 60 ft lower. Dec. 22, 1920, to Sept. 30, 1966, water-stage recorder at present site at datum 60 ft lower.

AVERAGE DISCHARGE.--50 years, 2,346 cfs (36.28 inches per year, 1,700,000 acre-ft per year); 15-year base period (1952-67), 2,480 cfs.

EXTREMES.--Current year: Maximum discharge, 16,600 cfs Apr. 24 (gage height, 27.74 ft); maximum gage height, 30.21 ft Jan. 6 (ice jam); minimum daily discharge, 330 cfs Sept. 13-18; minimum gage height, 19.57 ft Sept. 3.
Period of record: Maximum discharge, 53,000 cfs Dec. 23, 1933, computed on basis of slope between gages downstream; maximum gage height, 33.1 ft Apr. 18, 1938, from floodmark, present datum; minimum discharge, 91 cfs Nov. 27, 1952; minimum gage height, 18.43 ft Dec. 5, 1928, present datum.

REMARKS.--Records fair. No diversion above gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	747	910	1,710	820	1,150	1,000	5,740	7,180	8,150	1,740	621	392
2	711	900	1,630	900	1,100	1,010	5,700	6,500	7,390	1,660	608	384
3	689	880	1,630	1,000	1,100	1,070	6,410	5,930	7,090	1,620	596	375
4	693	870	1,980	1,500	1,050	1,150	5,620	5,630	7,000	1,580	586	385
5	724	840	1,750	2,500	1,050	1,170	5,820	5,940	6,850	1,510	582	400
6	693	810	1,650	5,000	1,050	1,160	8,150	6,970	6,410	1,440	577	410
7	743	770	1,600	6,400	1,000	1,080	7,090	8,960	5,990	1,380	565	400
8	689	780	1,600	6,180	1,000	986	5,930	11,100	5,600	1,350	552	390
9	659	810	1,600	4,560	980	930	5,850	12,100	5,210	1,280	542	380
10	672	920	1,650	3,780	960	970	6,650	13,500	4,810	1,220	528	360
11	750	1,100	2,000	3,340	950	994	6,140	15,100	4,340	1,170	518	350
12	2,020	1,800	2,300	2,890	940	1,030	5,970	15,200	3,940	1,140	509	340
13	1,910	2,800	2,100	2,650	930	1,070	6,950	14,600	3,610	1,100	509	330
14	1,660	2,470	2,000	2,400	920	1,070	6,670	13,600	3,310	1,060	503	330
15	1,500	2,200	1,850	2,200	910	1,130	6,140	12,600	3,070	1,010	490	330
16	1,800	2,000	1,700	2,100	910	1,130	6,200	11,600	2,880	981	477	330
17	1,700	1,740	1,600	2,000	910	1,260	6,930	11,100	2,720	952	469	330
18	1,550	1,700	1,550	1,900	910	1,840	8,450	11,100	2,580	921	468	330
19	1,450	1,660	1,500	1,750	910	1,890	8,650	10,700	2,460	888	464	340
20	1,350	1,650	1,280	1,650	910	1,730	7,790	10,700	2,360	862	456	380
21	1,800	1,650	1,200	1,550	910	1,760	6,910	9,810	2,250	834	448	420
22	2,200	3,410	1,150	1,500	920	1,920	8,080	9,160	2,160	803	440	450
23	2,100	3,980	1,100	1,400	930	1,990	13,200	9,180	2,190	784	432	450
24	1,900	3,200	1,050	1,350	940	1,800	12,700	9,690	2,430	769	424	450
25	1,700	2,750	1,000	1,350	950	1,830	11,700	9,770	2,360	754	411	430
26	1,400	2,370	950	1,300	960	2,110	8,990	9,590	2,250	721	407	410
27	1,200	2,220	900	1,250	980	2,810	7,580	8,900	2,230	712	408	393
28	1,050	2,020	850	1,250	1,000	3,780	7,460	7,760	2,120	700	408	386
29	940	1,890	820	1,200	-----	4,250	9,100	7,050	2,010	668	410	391
30	920	1,850	800	1,200	-----	4,820	8,300	9,260	1,870	652	405	423
31	950	-----	800	1,150	-----	5,520	-----	9,660	-----	641	399	-----
TOTAL	38,870	52,950	45,300	70,020	27,230	56,260	226,870	309,940	117,640	32,902	15,212	11,469
MEAN	1,254	1,765	1,461	2,259	973	1,815	7,562	9,998	3,921	1,061	491	382
MAX	2,200	3,980	2,300	6,400	1,150	5,520	13,200	15,200	8,150	1,740	621	450
MIN	659	770	800	820	910	930	5,620	5,630	1,870	641	399	330
CFSM	1.22	1.71	1.42	2.19	.94	1.76	7.34	9.71	3.81	1.03	.48	.37
IN.	1.40	1.91	1.64	2.53	.98	2.03	8.19	11.19	4.25	1.19	.55	.41
AC-FT	77,100	105,000	89,850	138,900	54,010	111,600	450,000	614,800	233,300	65,260	30,170	22,750

CAL YR 1968: TOTAL 846,216 MEAN 2,312 MAX 11,700 MIN 496 CFSM 2.24 IN 30.55 AC-FT 1,678,000
WTR YR 1969: TOTAL 1,004,663 MEAN 2,753 MAX 15,200 MIN 330 CFSM 2.67 IN 36.28 AC-FT 1,993,000

PEAK DISCHARGE (BASE, 8,500 CFS).--Apr. 24 (0845) 16,600 cfs (27.74 ft); May 12 (0345) 15,800 cfs (27.48 ft).

SPOKANE RIVER BASIN

12-4149. St. Maries River near Santa, Idaho

LOCATION.--Lat 47°10'35", long 116°29'30", in SE¼NW¼ sec.8, T.44 N., R.1 W., Benewah County, on right bank 450 ft upstream from bridge on U.S. Highway 95 Alternate, 0.3 mile upstream from Santa Creek, 2.7 miles northwest of Santa, and at mile 24.6.

DRAINAGE AREA.--275 sq mi.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,574.56 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 3,040 cfs Apr. 24 (gage height, 8.65 ft); minimum, 44 cfs Sept. 17, 18 (gage height, 3.75 ft).

Period of record: Maximum discharge, 4,340 cfs Feb. 20, 1968 (gage height, 9.90 ft); minimum, 23 cfs Nov. 26, 1967 (gage height, 3.42 ft).

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

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 20 to Mar. 7, May 5-24; stage-discharge relation affected by ice Nov. 16-18, Jan. 13, 14)

3.7	41	6.0	990
4.0	78	7.0	1,700
4.5	160	8.0	2,520
5.0	305		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	113	130	110	300	156	1,400	1,380	560	164	75	51
2	71	106	130	160	300	154	1,200	1,210	492	156	72	50
3	68	108	150	250	290	166	1,400	1,100	444	150	71	50
4	68	111	270	600	290	176	1,680	1,000	412	150	71	49
5	74	106	250	1,000	280	182	1,830	955	378	146	71	51
6	75	102	210	1,700	280	190	2,230	1,050	361	140	72	53
7	75	100	180	2,200	270	178	1,910	1,280	336	135	72	51
8	75	100	160	1,820	270	160	1,570	1,420	302	134	70	50
9	74	212	140	1,300	260	150	1,520	1,480	284	129	67	49
10	71	202	140	1,010	260	140	1,690	1,530	266	124	65	49
11	77	192	180	800	260	150	1,640	1,570	249	121	64	50
12	286	550	210	658	250	160	1,610	1,490	232	121	64	49
13	266	450	200	620	250	180	1,860	1,400	220	119	65	50
14	154	288	180	600	250	200	1,720	1,310	238	114	64	49
15	185	190	170	580	250	250	1,450	1,170	198	110	62	49
16	232	160	160	550	240	350	1,360	1,060	188	106	60	46
17	158	140	140	530	240	460	1,430	948	180	105	59	45
18	140	140	130	500	230	600	1,840	890	176	102	59	45
19	140	150	120	470	226	760	1,950	830	172	100	58	53
20	137	160	110	450	192	730	1,880	890	166	99	58	67
21	226	220	105	430	180	718	1,600	778	162	96	57	86
22	192	400	100	410	180	748	1,900	710	162	94	57	70
23	168	540	95	390	176	830	2,200	665	180	93	56	64
24	152	420	90	370	168	748	2,400	650	280	92	54	86
25	137	350	85	360	164	808	1,600	628	246	90	53	67
26	129	210	80	350	160	955	1,400	598	198	87	52	59
27	121	190	75	340	146	1,050	1,300	575	202	84	52	57
28	118	170	70	330	148	1,150	1,300	538	217	84	51	57
29	114	160	68	325	-----	1,300	1,400	470	195	81	51	56
30	114	140	65	320	-----	1,400	1,570	762	174	77	51	58
31	118	-----	80	310	-----	1,600	-----	702	-----	75	51	-----
TOTAL	4,090	6,480	4,273	19,843	6,510	16,799	49,840	31,039	7,870	3,478	1,904	1,666
MEAN	132	216	138	640	233	542	1,661	1,001	262	112	61.4	55.5
MAX	286	550	270	2,200	300	1,600	2,400	1,570	560	164	75	86
MIN	68	100	65	110	146	140	1,200	470	162	75	51	45
CFSM	.48	.79	.50	2.33	.85	1.97	6.04	3.64	.95	.41	.22	.20
IN.	.55	.88	.58	2.68	.88	2.27	6.74	4.20	1.06	.47	.26	.23
AC-FT	8,110	12,850	8,480	39,360	12,910	33,320	98,860	61,560	15,610	6,900	3,780	3,300

CAL YR 1968: TOTAL 91,897 MEAN 251 MAX 3,750 MIN 44 CFSM .91 IN 12.43 AC-FT 182,300
WTR YR 1969: TOTAL 153,792 MEAN 421 MAX 2,400 MIN 45 CFSM 1.53 IN 20.80 AC-FT 305,000

PEAK DISCHARGE (BASE, 1,200 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1- 7	(a)		2,200	4-24	(a)	8.65	3,040
4- 6	1000	7.75	2,280	5-11	1100	7.00	1,610

a Unknown.

NOTE.--No gage-height record Nov. 19 to Jan. 7, Jan. 15 to Feb. 19, Mar. 8-20, Mar. 27 to Apr. 3, Apr. 21-29.

12-4155. Coeur d'Alene Lake at Coeur d'Alene, Idaho

LOCATION.--Lat 47°39'55", long 116°46'05", in NW¼SE¼ sec.24, T.50 N., R.4 W., Kootenai County, 500 ft southwest of south end of Eleventh Street, Coeur d'Alene, and 113.1 miles upstream from mouth of Spokane River.

DRAINAGE AREA.--3,700 sq mi, approximately.

PERIOD OF RECORD.--April 1903 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,100.00 ft above mean sea level, referred to originally accepted elevation (2,157.40 ft) of Geological Survey bench mark in southeast corner of Idaho First National Bank Building (see WSP 882). Gage heights reduced to elevations above mean sea level, based on the above datum. Datum of gage is 2,097.00 ft above mean sea level. Apr. 26, 1903, to Feb. 14, 1905, nonrecording gage at mouth of St. Joe River at datum about 18.7 ft higher. Feb. 15, 1905, to Mar. 23, 1921, nonrecording gage and Mar. 24, 1921, to Dec. 22, 1930, water-stage recorder, at Johnson Wharf 800 ft southeast of railroad station and 1 mile northwest of present site at datum 19.75 ft higher. Dec. 23, 1930, to Feb. 9, 1931, nonrecording gage at present site and datum.

EXTREMES.--Current year: Maximum contents, 487,600 acre-ft Apr. 27 (elevation, 2,132.77 ft); minimum, 82,600 acre-ft Mar. 3 (elevation, 2,123.07 ft).

Period of record: Maximum contents, 834,900 acre-ft Dec. 25, 1933 (elevation, 2,139.05 ft); minimum, 2,700 acre-ft below zero of contents table Oct. 10-12, 1904, Sept. 24, 25, 1905, Oct. 14 to Nov. 3, 1906 (elevation, 2,119.9 ft).

Maximum contents known prior to 1903, 753,300 acre-ft May 31, 1894 (elevation, 2,137.6 ft, from high-water marks).

REMARKS.--The Washington Water Power Co. stores water in Coeur d'Alene Lake by regulation at Post Falls Dam for power generation at Post Falls and other plants on Spokane River. Storage is within natural range of lake stage. Contents given herein are those above elevation 2,120.0 ft. Capacity of lake between elevations 2,120 and 2,140 ft, 889,000 acre-ft.

COOPERATION.--Water-stage-recorder graph furnished by Washington Water Power Co.

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

2,122.0	53,700	2,128.0	238,500
2,124.0	107,900	2,130.0	339,700
2,126.0	162,900	2,133.0	500,000

ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.97	27.52	27.75	25.97	25.37	23.13	28.53	31.97	29.24	28.00	27.93	27.31
2	27.93	27.49	27.71	25.85	25.28	23.09	28.94	31.72	29.09	28.03	27.93	27.28
3	27.89	27.45	27.63	25.78	25.28	23.07	29.28	31.39	28.91	27.99	27.94	27.23
4	27.85	27.38	27.72	25.70	25.37	23.08	29.51	31.05	28.72	27.94	27.96	27.15
5	27.80	27.30	27.80	25.83	25.35	23.16	29.70	30.71	28.52	27.96	27.94	27.09
6	27.75	27.21	27.82	26.41	25.22	23.24	29.97	30.46	28.28	28.01	27.92	27.03
7	27.70	27.15	27.84	27.23	25.09	23.24	30.25	30.36	28.07	28.02	27.94	26.98
8	27.65	27.14	27.88	27.86	24.96	23.25	30.34	30.46	27.84	28.00	27.93	26.94
9	27.58	27.13	27.88	28.18	24.85	23.25	30.39	30.65	27.61	27.97	27.92	26.90
10	27.59	27.14	27.81	28.25	24.72	23.25	30.43	30.89	27.38	27.95	27.94	26.86
11	27.62	27.16	27.85	28.15	24.62	23.25	30.44	31.23	27.16	27.96	27.96	26.81
12	27.70	27.33	27.85	27.94	24.53	23.24	30.43	31.57	26.89	27.96	27.92	26.78
13	27.76	27.59	27.80	27.79	24.42	23.22	30.44	31.82	26.64	27.97	27.89	26.74
14	27.81	27.78	27.70	27.73	24.32	23.21	30.50	31.97	26.54	27.97	27.91	26.68
15	27.81	27.92	27.64	27.59	24.21	23.22	30.47	31.99	26.70	27.97	27.91	26.61
16	27.84	27.97	27.56	27.45	24.11	23.23	30.38	31.91	26.86	27.98	27.90	26.56
17	27.83	27.95	27.41	27.24	24.00	23.36	30.37	31.76	27.07	27.98	27.87	26.51
18	27.82	27.90	27.29	27.01	23.88	23.76	30.46	31.59	27.24	27.97	27.89	26.48
19	27.78	27.81	27.15	26.82	23.78	24.17	30.74	31.41	27.37	27.98	27.87	26.43
20	27.80	27.75	27.04	26.62	23.69	24.47	30.95	31.23	27.57	27.98	27.86	26.47
21	27.83	27.70	26.96	26.43	23.59	24.72	31.06	31.01	27.65	27.97	27.85	26.44
22	27.87	27.80	26.88	26.23	23.51	24.99	31.08	30.77	27.73	27.95	27.81	26.41
23	27.89	28.00	26.84	26.04	23.45	25.26	31.35	30.54	27.85	27.94	27.78	26.42
24	27.90	28.04	26.82	25.85	23.37	25.49	31.99	30.35	27.97	27.93	27.74	26.39
25	27.88	28.04	26.80	25.76	23.32	25.66	32.58	30.16	27.98	27.92	27.68	26.35
26	27.81	27.99	26.78	25.71	23.28	25.87	32.76	30.03	27.95	27.90	27.62	26.31
27	27.77	27.86	26.71	25.63	23.22	26.23	32.65	29.89	27.98	27.92	27.57	26.29
28	27.72	27.80	26.60	25.55	23.17	26.68	32.44	29.68	28.02	27.94	27.50	26.25
29	27.68	27.81	26.44	25.49	-----	27.09	32.24	29.47	28.01	27.91	27.44	26.23
30	27.64	27.78	26.23	25.54	-----	27.49	32.15	29.30	28.00	27.90	27.40	26.21
31	27.58	-----	26.10	25.47	-----	28.04	-----	29.29	-----	27.92	27.34	-----
(†)	218,900	228,100	165,800	148,100	85,300	240,400	454,100	302,900	238,500	234,700	208,600	169,000
(‡)	-20,600	+9,200	-62,300	-17,700	-62,800	+155,100	+213,700	-151,200	-64,400	-3,800	-26,100	-39,600
MAX	27.97	28.04	27.88	28.25	25.37	28.04	32.76	31.99	29.24	28.03	27.96	27.31
MIN	27.58	27.13	26.10	25.47	23.17	23.07	28.53	29.29	26.54	27.90	27.34	26.21
MEAN	27.78	27.63	27.30	26.62	24.28	24.34	30.76	30.86	27.76	27.96	27.81	26.67

WATER YEAR 1968-69: MEAN 27.50 MAX 32.76 MIN 23.07

CAL YR 1968..... † +58,200

WTR YR 1969..... ‡ -70,500

† Contents, in acre-feet, at end of month.

‡ Change in contents, in acre-feet.

NOTE.--Add 2,100 ft to obtain elevation above mean sea level.

SPOKANE RIVER BASIN

12-4160. Hayden Creek below North Fork, near Hayden Lake, Idaho
(Hydologic benchmark station)

LOCATION.--Lat 46°49'22", long 116°39'10", in NW¼SW¼ sec.25, T.52 N., R.3 W., Kootenai County, on right bank 0.3 mile downstream from confluence of East Fork and North Fork, and 7.5 miles northeast of Hayden Lake Post Office.

DRAINAGE AREA.--22.0 sq mi.

PERIOD OF RECORD.--April 1948 to December 1953, October 1958 to September 1959, September 1961 to September 1965 (annual maximum), October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,370 ft (from topographic map). April 22, 1948, to Nov. 1, 1948, nonrecording gage and Nov. 2, 1948, to June 26, 1951, water-stage recorder at site 200 ft downstream at datum 0.98 ft lower. June 27, 1951, to Dec. 4, 1953, Oct. 1, 1958, to Sept. 30, 1959, water-stage recorder, Sept. 16, 1961, to Sept. 30, 1965, crest-stage gage, at datum 0.41 ft higher.

AVERAGE DISCHARGE.--10 years (1948-53, 1958-59, 1965-69), 32.2 cfs (19.88 inches per year, 23,330 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 328 cfs Apr. 1 (gage height, 3.73 ft); minimum, 3.5 cfs Sept. 13, 18 (gage height, 2.33 ft).

Period of record: Maximum discharge, 790 cfs Dec. 23, 1964 (gage height, 4.56 ft, present site and datum), from rating curve extended above 270 cfs on basis of slope-area measurement; maximum gage height, 4.93 ft Feb. 11, 1951 (ice jam), site and datum then in use; minimum discharge recorded, 2.8 cfs Nov. 29, 30, 1952, Sept. 23, 1966, Sept. 1, 1967.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Feb. 5, 6, 21, Mar. 9-12)

2.3	3.0	3.0	48
2.4	4.7	3.2	89
2.6	11	3.5	182
2.8	23	3.8	328

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	11	26	20	19	17	283	134	47	11	5.2	3.8
2	3.7	11	25	26	18	16	199	121	44	11	5.2	3.8
3	3.5	12	26	30	17	17	182	112	40	11	5.0	4.0
4	3.8	12	34	32	16	19	171	102	38	11	5.2	4.5
5	4.0	12	34	35	16	20	157	92	35	12	5.2	4.5
6	4.4	12	33	36	15	21	224	94	33	11	5.2	4.2
7	4.4	11	32	37	15	20	199	112	31	10	5.0	4.0
8	4.2	12	33	38	14	19	160	115	28	10	5.0	3.8
9	4.0	19	31	39	15	18	146	112	26	10	5.0	3.8
10	9.4	18	34	38	15	17	146	115	25	9.7	5.0	3.8
11	8.3	28	47	37	16	17	153	115	23	9.7	4.7	3.8
12	15	89	48	36	18	19	153	102	22	9.3	4.7	3.7
13	9.7	69	47	35	17	21	175	92	20	9.0	4.7	3.7
14	7.6	48	44	34	16	22	168	85	20	9.0	4.7	3.7
15	14	40	41	33	16	23	130	71	19	8.7	4.7	3.7
16	13	32	41	32	16	24	110	63	18	8.3	4.5	3.8
17	10	28	37	31	15	32	118	58	17	8.3	4.5	3.7
18	13	24	37	30	15	50	210	58	17	8.0	4.7	4.2
19	13	23	35	29	16	56	211	54	16	7.6	4.4	5.2
20	32	23	31	28	15	54	178	48	14	7.3	4.4	6.5
21	46	24	32	27	15	54	146	46	14	7.3	4.4	5.5
22	31	40	31	26	16	60	130	44	14	7.0	4.4	4.7
23	22	52	30	26	17	60	203	41	15	7.0	4.4	7.3
24	18	50	31	25	16	56	238	41	18	7.0	4.4	5.0
25	17	43	32	24	17	58	175	40	15	6.5	4.2	4.4
26	14	37	32	23	16	60	143	40	14	6.3	4.2	4.2
27	13	34	31	22	15	74	127	40	14	6.3	4.2	4.2
28	12	30	28	22	15	107	115	37	13	6.0	4.2	4.2
29	12	28	22	21	-----	124	143	40	12	5.7	4.2	4.2
30	13	28	10	21	-----	153	150	58	11	5.5	4.2	6.9
31	12	-----	11	20	-----	220	-----	52	-----	5.5	4.0	-----
TOTAL	390.8	900	1,006	913	447	1,528	5,043	2,334	673	262.0	143.8	132.8
MEAN	12.6	30.0	32.5	29.5	16.0	49.3	168	75.3	22.4	8.45	4.64	4.43
MAX	46	89	48	39	19	220	283	134	47	12	5.2	7.3
MIN	3.5	11	10	20	14	16	110	37	11	5.5	4.0	3.7
CFSM	.57	1.36	1.48	1.34	.73	2.24	7.64	3.42	1.02	.38	.21	.20
IN.	.66	1.52	1.70	1.54	.76	2.58	8.52	3.95	1.14	.44	.24	.22
AC-FT	775	1,790	2,000	1,810	887	3,030	10,000	4,630	1,330	520	285	263

CAL YR 1968: TOTAL 7,346.3 MEAN 20.1 MAX 178 MIN 3.0 CFSM .91 IN 12.42 AC-FT 14,570
WTR YR 1969: TOTAL 13,773.4 MEAN 37.7 MAX 283 MIN 3.5 CFSM 1.72 IN 23.28 AC-FT 27,320

PEAK DISCHARGE (BASE, 200 CFS)

NOTE.--No gage-height record Dec. 29 to Feb. 4.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4- 1	0100	3.73	328	4-18	1500	3.61	253
4- 6	1700	3.58	248	4-24	0700	3.65	267

12-4170. Hayden Lake at Hayden Lake, Idaho

LOCATION.--Lat 47°46'02", long 116°45'12", 300 ft north of center of sec.18, T.51 N., R.3 W., Kootenai County, at Avondale pumping plant, 1.6 (revised) miles northeast of Hayden Lake Post Office.

DRAINAGE AREA.--62.3 sq mi.

PERIOD OF RECORD.--May 1920 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 2,200.21 ft above mean sea level. Prior to Oct. 1, 1925, at datum 30.35 ft higher. Oct. 1, 1925, to Mar. 26, 1931, at datum 21.60 ft higher.

EXTREMES.--Current year: Maximum gage height observed, 39.38 ft May 11, 12, 13; minimum observed, 31.38 ft Oct. 9, 10.

Period of record: Maximum gage height observed, 42.46 ft Apr. 22, 1956; minimum observed, 19.38 ft Dec. 16, 1931.

REMARKS.--Water is pumped from lake for irrigation and domestic supply. Lake has no natural surface outlet; but, due to the permeability of the lakebed, a considerable part of the total inflow leaves the lake by infiltration to the ground water of the Rathdrum Prairie.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.54	31.64	32.16	32.88	33.86	33.96	35.50	39.22	39.06	38.10	36.76	35.24
2	31.50	31.62	32.18	32.90	33.86	33.96	35.72	39.26	39.06	38.06	36.72	35.18
3	31.48	31.64	32.20	32.92	33.90	33.94	35.96	39.28	39.04	38.02	36.66	35.12
4	31.46	31.62	32.22	32.94	33.90	33.94	36.12	39.30	39.02	37.98	36.62	35.08
5	31.44	31.62	32.24	32.96	33.90	33.96	36.26	39.30	38.98	37.96	36.56	35.04
6	31.42	31.60	32.24	33.04	33.92	33.98	36.42	39.32	38.96	37.94	36.50	35.00
7	31.40	31.60	32.26	33.14	33.92	33.98	36.62	39.32	38.96	37.92	36.44	34.98
8	31.40	31.60	32.28	33.18	33.92	34.00	36.76	39.34	38.92	37.88	36.38	34.96
9	31.38	31.64	32.30	33.24	33.90	34.00	36.88	39.34	38.88	37.86	36.34	34.92
10	31.38	31.64	32.34	33.34	33.92	34.00	36.98	39.36	38.84	37.82	36.28	34.90
11	31.42	31.66	32.38	33.42	33.92	34.00	37.14	39.38	38.80	37.80	36.24	34.86
12	31.46	31.78	32.42	33.46	33.94	34.00	37.24	39.38	38.76	37.76	36.20	34.84
13	31.48	31.84	32.54	33.50	33.94	34.00	37.38	39.38	38.70	37.72	36.16	34.80
14	31.46	31.86	32.56	33.54	33.94	34.02	37.50	39.36	38.66	37.68	36.12	34.76
15	31.52	31.88	32.58	33.58	33.94	34.02	37.60	39.32	38.60	37.64	36.06	34.72
16	31.50	31.94	32.62	33.62	33.94	34.02	37.68	39.26	38.56	37.62	36.00	34.68
17	31.48	31.94	32.66	33.64	33.92	34.04	37.74	39.22	38.52	37.56	35.96	34.64
18	31.48	31.96	32.70	33.68	33.92	34.12	37.86	39.16	38.46	37.50	35.92	34.62
19	31.50	31.98	32.72	33.68	33.92	34.16	38.02	39.12	38.42	37.44	35.86	34.60
20	31.56	31.98	32.74	33.70	33.92	34.22	38.12	39.12	38.36	37.38	35.82	34.62
21	31.64	31.96	32.74	33.70	33.92	34.28	38.24	39.10	38.32	37.32	35.76	34.64
22	31.66	32.04	32.76	33.70	33.92	34.34	38.30	39.10	38.26	37.28	35.70	34.62
23	31.66	32.06	32.80	33.70	33.92	34.44	38.38	39.08	38.22	37.22	35.66	34.62
24	31.68	32.08	32.82	33.70	33.94	34.50	38.60	39.04	38.26	37.16	35.60	34.60
25	31.68	32.10	32.84	33.70	33.94	34.56	38.74	39.00	38.26	37.12	35.56	34.60
26	31.66	32.12	32.84	-	33.94	34.60	38.84	38.98	38.24	37.04	35.52	34.58
27	31.66	32.14	32.84	33.74	33.94	34.68	38.90	38.96	38.22	36.98	35.46	34.58
28	31.66	32.14	32.86	33.74	33.94	34.78	38.94	38.94	38.22	36.94	35.42	34.56
29	31.64	32.16	32.86	33.76	-----	34.90	39.02	38.94	38.18	36.90	35.36	34.54
30	31.66	32.16	32.86	33.80	-----	35.04	39.14	39.04	38.14	36.86	35.32	34.54
31	31.66	-----	32.88	33.84	-----	35.22	-----	39.06	-----	36.82	35.28	-----
MAX	31.68	32.16	32.88	-	33.94	35.22	39.14	39.38	39.06	38.10	36.76	35.24
MIN	31.38	31.60	32.16	-	33.86	33.94	35.50	38.94	38.14	36.82	35.28	34.54
MEAN	31.53	31.87	32.56	-	33.92	34.25	37.55	39.19	38.60	37.53	36.01	34.78

SPOKANE RIVER BASIN

12-4180. Rathdrum Prairie Canal at Huetter, Idaho

LOCATION.--Lat 47°42'35", long 116°52'05", in SE¼NE¼ sec.6, T.50 N., R.4 W., Kootenai County, on left bank 815 ft downstream from outlet of discharge pipe, 0.6 mile north of pumping plant, and 0.8 mile northwest of Huetter.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for October 1945 to March 1946, published in WSP 1316.

GAGE.--Water-stage recorder. Datum of gage is 2,272.02 ft above mean sea level (Bureau of Reclamation bench mark). Prior to Oct. 5, 1967, water-stage recorder at site 365 ft upstream at datum 1.00 ft higher.

EXTREMES.--Period of record: Maximum daily discharge, 66 cfs June 29 to July 2, 1947; no flow for long periods in each year.

REMARKS.--Records good. Canal carries water which is pumped from Spokane River in sec.7, T.50 N., R.4 W., for irrigation of first unit of Rathdrum Prairie project (about 3,000 acres).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	51	36	50	50
2	0	0	0	0	0	0	0	0	51	46	50	47
3	0	0	0	0	0	0	0	0	40	29	51	50
4	0	0	0	0	0	0	0	0	50	48	51	50
5	0	0	0	0	0	0	0	0	49	48	51	49
6	0	0	0	0	0	0	0	0	48	47	51	49
7	0	0	0	0	0	0	0	0	48	48	51	48
8	0	0	0	0	0	0	0	.40	47	48	51	48
9	0	0	0	0	0	0	0	14	46	48	52	48
10	0	0	0	0	0	0	0	21	47	45	51	48
11	0	0	0	0	0	0	0	21	46	46	51	48
12	0	0	0	0	0	0	0	22	42	48	51	48
13	0	0	0	0	0	0	0	24	45	48	52	48
14	0	0	0	0	0	0	0	24	45	48	53	48
15	0	0	0	0	0	0	0	25	49	47	53	48
16	0	0	0	0	0	0	0	26	49	46	54	48
17	0	0	0	0	0	0	0	27	49	46	54	47
18	0	0	0	0	0	0	0	35	50	47	54	41
19	0	0	0	0	0	0	0	47	50	48	54	45
20	0	0	0	0	0	0	0	47	50	48	54	41
21	0	0	0	0	0	0	0	47	51	48	54	21
22	0	0	0	0	0	0	0	47	51	48	53	0
23	0	0	0	0	0	0	0	46	51	49	53	0
24	0	0	0	0	0	0	0	46	49	49	53	0
25	0	0	0	0	0	0	0	48	49	49	53	0
26	0	0	0	0	0	0	0	48	48	50	52	0
27	0	0	0	0	0	0	0	49	40	50	51	0
28	0	0	0	0	0	0	0	48	28	50	51	0
29	0	0	0	0	-----	0	0	49	28	50	51	0
30	0	0	0	0	-----	0	0	49	28	50	51	0
31	0	-----	0	0	-----	0	-----	50	-----	50	50	-----
TOTAL	0	0	0	0	0	0	0	860.40	1,375	1,458	1,611	970
MEAN	0	0	0	0	0	0	0	27.8	45.8	47.0	52.0	32.3
MAX	0	0	0	0	0	0	0	50	51	50	54	50
MIN	0	0	0	0	0	0	0	0	28	29	50	0
AC-FT	0	0	0	0	0	0	0	1,710	2,730	2,890	3,200	1,920

CAL YR 1968: TOTAL 6,766.20

MEAN 18.5

MAX 57

MIN 0

AC-FT 13,420

WTR YR 1969: TOTAL 6,274.40

MEAN 17.2

MAX 54

MIN 0

AC-FT 12,450

12-4190. Spokane River near Post Falls, Idaho

LOCATION.--Lat 47°42'10", long 116°58'40", in SW¼SW¼ sec.4, T.50 N., R.5 W., Kootenai County, on right bank 1 mile downstream from powerplant of Washington Water Power Co., 1.5 miles southwest of Post Falls, and at mile 100.7.

DRAINAGE AREA.--3,840 sq mi, approximately, of which about 122 sq mi in the vicinity of Hayden Lake is noncontributing to this station.

PERIOD OF RECORD.--October 1912 to current year (prior to January 1913 monthly discharge only, published in WSP 870 and 1736). Prior to October 1949, published as "at Post Falls".

GAGE.--Water-stage recorder. Datum of gage is 2,050 ft above mean sea level, referenced to same datum as gage on Coeur d'Alene Lake at Coeur d'Alene (see sta 12-4155). Datum of gage is 2,053 ft above mean sea level. Jan. 1, 1913, to Nov. 21, 1920, nonrecording gage and Nov. 22, 1920, to Sept. 30, 1964, water-stage recorder at present site or 0.6 or 0.8 mile upstream at datum 50 ft lower than present datum.

AVERAGE DISCHARGE.--River only, 57 years, 6,234 cfs (4,517,000 acre-ft per year); 15-year base period (1952-67), 6,697 cfs; combined river and diversions above gage, 57 years, 6,334 cfs (4,589,000 acre-ft per year); 15-year base period (1952-67), 6,794 cfs.

EXTREMES.--Current year: Maximum discharge, 30,300 cfs Apr. 27 (gage height, 21.09 ft); minimum, 692 cfs Aug. 19 (gage height, 6.20 ft).

Period of record: Maximum discharge, 50,100 cfs when recorder was not operating Dec. 25, 1933 (determined from unpublished records collected by Washington Water Power Co. for station at Liberty Bridge); minimum, 78 cfs Aug. 15, 1968 (gage height, 4.95 ft).

CORRECTIONS.--The gage height of maximum discharge for water year 1968 was in error. It should be 18.89 ft superseding the figures published in WRD for Idaho 1968.

REMARKS.--Records excellent. Rathdrum Prairie Canal (see sta 12-4180) diverts water above gage for irrigation. Figures of daily discharge do not include water diverted by this canal. Flow regulated by dam at Post Falls and affected by storage in Coeur d'Alene Lake (see sta 12-4155).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,670	4,090	6,450	5,870	5,510	4,060	16,100	27,900	18,700	2,800	731	1,500
2	1,890	4,090	6,460	5,850	5,480	4,100	17,400	27,200	18,400	3,320	741	1,510
3	2,150	4,090	6,420	5,780	3,490	3,920	18,500	26,300	18,000	3,620	732	1,500
4	2,160	4,400	7,000	5,760	2,310	3,880	19,300	25,200	17,400	3,580	732	1,500
5	2,150	4,640	7,500	5,760	4,530	3,030	19,800	24,100	17,000	2,720	726	1,500
6	2,160	4,550	6,840	6,940	6,170	1,290	20,500	23,000	16,500	1,630	722	1,500
7	2,180	4,370	6,430	9,090	6,000	3,370	21,400	22,100	15,700	2,570	729	1,500
8	2,250	4,190	6,480	13,000	5,850	4,430	22,100	22,200	15,100	2,880	729	1,500
9	2,250	4,130	6,440	15,200	5,830	4,410	22,300	22,800	14,200	2,880	729	1,500
10	2,260	4,100	8,610	15,800	5,970	4,360	22,400	23,400	13,100	2,680	732	1,500
11	2,250	3,940	9,960	15,700	6,040	4,290	22,500	24,400	12,700	1,980	751	1,510
12	2,250	3,940	9,770	15,200	6,010	4,260	22,600	25,500	12,100	1,530	731	1,510
13	2,890	5,550	9,600	13,500	5,940	4,260	22,500	26,500	11,500	1,530	721	1,510
14	2,990	6,070	9,860	12,700	5,810	4,130	22,600	27,300	6,740	1,520	719	1,510
15	3,770	6,870	9,760	12,600	5,690	4,120	22,600	27,600	2,070	1,740	725	1,510
16	3,880	6,930	9,740	12,300	5,620	4,140	22,400	27,500	1,720	1,520	717	1,510
17	3,820	6,540	9,600	12,000	5,490	4,220	22,000	27,100	1,240	1,550	714	1,510
18	4,170	6,510	9,030	11,600	5,340	4,700	22,200	26,600	1,120	1,530	723	1,500
19	4,380	6,460	8,630	11,200	5,220	5,490	22,900	26,000	1,450	1,520	716	1,500
20	4,360	6,450	7,130	10,800	5,150	6,090	23,700	25,300	1,450	1,530	717	1,500
21	3,960	6,460	6,140	10,300	4,900	6,160	24,200	24,700	1,460	1,520	717	1,500
22	4,130	6,470	6,110	9,100	4,770	6,460	24,300	23,800	1,470	1,520	1,220	1,500
23	4,330	8,510	6,100	8,370	4,710	6,880	24,800	22,900	2,150	1,400	1,530	1,490
24	4,220	10,100	6,080	7,200	4,530	7,480	26,200	22,200	2,550	1,290	1,540	1,500
25	4,520	10,200	6,090	6,320	4,460	7,890	28,300	21,600	3,730	1,290	1,510	1,500
26	5,000	10,600	6,090	6,260	4,310	8,220	29,600	21,100	4,380	1,120	1,510	1,520
27	4,470	9,920	6,070	6,220	4,190	8,860	29,800	20,700	3,620	732	1,550	1,500
28	4,480	8,030	6,040	6,220	4,080	10,400	29,200	20,100	3,580	985	1,520	1,500
29	4,570	6,460	6,010	5,080	-----	12,200	28,600	19,500	3,590	1,390	1,500	1,540
30	4,620	6,410	5,950	3,570	-----	13,100	28,300	19,000	3,190	1,140	1,510	1,660
31	4,370	-----	5,870	5,540	-----	14,500	-----	18,700	-----	724	1,510	-----
TOTAL	104,550	185,070	228,260	290,830	143,400	184,700	699,100	742,300	245,910	57,741	30,154	45,290
MEAN	3,373	6,169	7,363	9,382	5,121	5,958	23,300	23,950	8,197	1,863	973	1,510
MAX	5,000	10,600	9,960	15,800	6,170	14,500	29,800	27,900	18,700	3,620	1,550	1,660
MIN	1,670	3,940	5,870	3,570	2,310	1,290	16,100	18,700	1,120	724	714	1,490
AC-FT	207,400	367,100	452,700	576,900	284,400	366,300	1,387M	1,472M	487,800	114,500	59,810	89,830
(†)	0	0	0	0	0	0	0	1,71M	2,730	2,890	3,200	1,920

ADJUSTED FOR DIVERSION THROUGH RATHDRUM PRAIRIE CANAL

MEAN	3,373	6,169	7,363	9,382	5,121	5,958	23,300	23,970	8,243	1,910	1,025	1,542
AC-FT	207,400	367,100	452,700	576,900	284,400	366,300	1,387M	1,474M	490,500	117,400	63,010	91,760

OBSERVED

CAL YR 1968: TOTAL	2,138,113	MEAN	5,842	MAX	23,100	MIN	352	AC-FT	4,241,000
WTR YR 1969: TOTAL	2,957,305	MEAN	8,102	MAX	29,800	MIN	714	AC-FT	5,866,000

ADJUSTED

CAL YR 1968: TOTAL	2,144,879.2	MEAN	5,860	CFSM	1.53	IN	20.72	AC-FT	4,254,000
WTR YR 1969: TOTAL	2,963,577.4	MEAN	8,119	CFSM	2.11	IN	28.71	AC-FT	5,878,000

M Expressed in thousands.

† Diversions in acre-feet through Rathdrum Prairie Canal.

SNAKE RIVER BASIN

SNAKE RIVER MAIN STEM

13-0105. Jackson Lake near Moran, Wyo.
(Formerly published as "at Moran")

LOCATION (revised).--Lat 43°51'33", long 110°35'23", in SE¼SW¼ sec.18, T.45 N., R.114 W., Teton County, in Grand Teton National Park, near left end of spillway over dam on Snake River, 4.3 miles west of Moran, and at mile 1,000.2.

DRAINAGE AREA.--824 sq mi.

PERIOD OF RECORD.--July 1908 to current year (1908-10 fragmentary). Prior to October 1967, published as "at Moran".

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (Bureau of Reclamation datum). Datum of Geological Survey, unadjusted, is 2.08 ft lower. Prior to June 1, 1941, at site 300 ft upstream at same datum.

EXTREMES.--Current year: Maximum contents, 850,600 acre-ft June 22 (elevation, 6,769.14 ft); minimum, 569,700 acre-ft Sept. 30 (elevation, 6,757.70 ft).

Period of record: Maximum contents, 859,530 acre-ft July 11, 1965 (elevation, 6,769.49 ft); no usable contents for several days during period August to October 1919.

REMARKS.--Reservoir was formed by log crib dam built in the outlet of the natural lake in 1906. Usable capacity was 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 (top of baffles to sluices) and 6,769 ft (top of spillway gates). Reservoir is used to store water for irrigation in Snake River valley, Idaho. Figures given herein represent usable contents.

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

REVISIONS.--WSP 1217: Drainage area.

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

6,750	392,900
6,760	624,360
6,770	872,600

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	585000	608600	616700	621500	642900	653200	650300	588400	769700	848000	797000	674100
2	584800	608800	616700	622200	642900	653500	650100	585000	776000	848200	793300	670400
3	584600	609100	617000	622200	643100	653700	650300	582700	781500	848500	789200	666100
4	584600	610000	617000	622700	643100	653700	650100	580800	788000	848200	786000	662000
5	584600	611000	617700	623400	643400	653200	650300	579400	795800	847700	781700	657600
6	584800	611700	617900	624400	644100	653000	650600	579100	804800	847200	777700	653500
7	584800	611700	617900	624800	645000	652800	651300	580100	842000	847200	773700	649400
8	585300	611700	617700	625600	645500	652500	651100	582200	823800	848200	769200	644800
9	586000	612600	617700	625800	646000	652000	649600	587700	830900	848500	765200	641000
10	587000	613100	617900	625800	647200	651600	647200	592400	836800	848000	761200	636900
11	587400	613400	617900	626000	647400	651300	643800	597400	841900	847200	757200	632500
12	588100	613400	617900	626500	647700	651100	640000	602100	844900	846500	753800	627200
13	588800	613800	617900	627700	648600	651100	636600	607400	848200	845400	751000	623200
14	590500	614100	617900	628700	648900	651300	634000	613100	848000	844700	747000	619600
15	591700	614300	618100	629200	648900	651300	631100	619800	847700	843400	743100	616000
16	595200	614800	618100	629600	649100	651300	628000	624800	848000	842100	739100	611900
17	595700	615300	618100	629900	649400	651600	624400	629400	848000	841100	735200	607900
18	596400	615500	618400	630100	650100	651800	621200	635400	848200	838800	731200	604000
19	597400	615500	618400	630600	650300	652000	618100	644300	848500	836300	727000	600200
20	598300	615500	618400	632000	650800	652000	614800	655200	848500	834000	723000	598800
21	599300	615800	618400	634000	650800	651800	611700	666100	850000	831200	719400	596700
22	600200	615800	618400	636600	651100	651600	608600	674300	850600	828600	715400	593100
23	601200	616000	618600	637300	651300	651800	606400	682900	849800	825800	711200	589300
24	601900	616200	619300	637600	651600	651800	604800	691400	849500	822800	707300	585800
25	602900	616500	619800	638100	652500	651600	603600	700900	849500	819800	703400	582200
26	603600	616500	620100	639000	652800	651300	601200	711500	849000	816500	699500	578400
27	604500	616700	620100	641200	653000	651100	598100	723000	847700	813200	695300	575300
28	605200	616700	620500	641700	653000	650600	596000	734200	848500	810200	691400	573000
29	606000	616700	620800	642200	-----	650600	593400	744300	848000	806900	687000	570900
30	606900	616700	620800	642400	-----	650300	591000	753300	848000	803300	683100	569700
31	607900	-----	621000	642600	-----	650300	-----	763000	-----	800600	679000	-----
MEAN	594213	613917	618487	631013	648232	651832	626923	642310	833727	834777	738510	617050
MAX	607900	616700	621000	642600	653000	653700	651300	763000	850600	848500	797000	674100
MIN	584600	608600	616700	621500	642900	650300	591000	579100	769700	800600	679000	569700
(+)	6,759.31	6,759.63	6,759.86	6,760.76	6,761.19	6,761.08	6,758.60	6,765.67	6,769.04	6,767.17	6,762.26	6,757.70
(+)	+22,370	+8,800	+4,300	+21,600	+10,400	-2,700	-59,300	+172,000	+85,000	-47,400	-121,600	-109,300
CAL YR 1968:	MEAN	653,690	MAX	847,740	MIN	584,600	+	+25,010				
WAT YR 1969:	MEAN	671,080	MAX	850,600	MIN	569,700	+	-15,830				

+ Elevation, in feet, at end of month.

+ Change in contents, in acre-feet.

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CAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	767	110	404	404	426	404	394	3,130	1,430	2,800	2,680	2,680
2	685	390	404	404	426	404	394	3,130	1,440	2,800	2,810	2,660
3	580	390	404	408	426	404	399	3,120	1,440	2,810	2,810	2,650
4	422	390	399	408	426	404	399	3,130	1,500	2,770	2,800	2,640
5	341	394	394	408	420	404	399	3,120	1,140	2,440	2,780	2,640
6	248	404	394	412	420	399	399	3,110	930	2,100	2,780	2,630
7	136	404	394	412	420	399	720	3,110	937	1,970	2,770	2,620
8	41	404	399	417	420	399	1,240	2,280	944	2,040	2,770	2,610
9	9.0	404	399	422	417	399	1,740	1,820	1,220	2,200	2,760	2,610
10	8.0	404	404	422	417	399	2,260	2,990	1,650	2,190	2,750	2,600
11	8.0	404	404	422	412	404	2,500	3,000	1,990	2,190	2,760	2,580
12	9.0	404	399	422	412	399	2,490	3,000	2,200	2,190	2,760	2,580
13	10	404	399	422	408	399	2,490	3,020	3,400	2,180	2,760	2,570
14	12	404	404	422	408	399	2,490	3,040	3,400	2,370	2,750	2,570
15	11	399	404	422	408	399	2,510	3,040	2,680	2,650	2,750	2,560
16	8.0	404	404	422	408	399	2,540	2,630	2,520	2,650	2,750	2,550
17	8.0	399	404	422	408	399	2,560	2,430	2,520	2,620	2,740	2,550
18	8.0	404	404	422	408	399	2,630	2,440	2,520	2,620	2,740	2,540
19	8.0	404	404	422	408	399	2,630	2,450	2,640	2,610	2,740	2,530
20	7.0	399	404	422	408	399	2,640	2,460	2,680	2,600	2,720	2,530
21	8.0	404	404	426	404	399	2,680	2,390	3,750	2,600	2,720	2,530
22	8.0	404	404	426	404	399	2,780	2,250	4,360	2,600	2,720	2,520
23	8.0	404	404	426	404	399	3,110	2,200	3,520	2,580	2,720	2,520
24	8.0	404	404	431	404	399	3,100	2,220	3,430	2,580	2,720	2,510
25	9.0	404	404	431	404	394	3,100	2,220	3,930	2,580	2,720	2,500
26	8.0	404	404	431	404	394	3,080	2,230	4,100	2,580	2,710	2,250
27	9.0	404	404	431	404	394	3,080	2,240	2,940	2,580	2,710	1,870
28	10	404	404	431	404	394	3,100	2,070	3,040	2,570	2,710	1,660
29	10	404	404	431	-----	394	3,120	1,810	2,930	2,580	2,700	1,490
30	10	404	404	431	-----	394	3,130	1,500	2,810	2,570	2,700	1,150
31	10	-----	404	431	-----	394	-----	1,480	-----	2,560	2,690	-----
TOTAL	3,424.0	11,759	12,469	13,063	11,538	12,364	64,104	79,060	73,991	77,180	85,000	72,900
MEAN	110	392	402	421	412	399	2,137	2,550	2,466	2,490	2,742	2,430
MAX	767	404	404	431	426	404	3,130	3,130	4,360	2,810	2,810	2,680

PACIFIC CREEK BASIN

13-0115. Pacific Creek at Moran, Wyo.
(Formerly published as "near Moran")

LOCATION.--Lat 43°51'04", long 110°30'59", in SW¼NW¼ sec.23, T.45 N., R.114 W., Teton County, in Grand Teton National Park, on right bank 6 ft upstream from bridge on U.S. Highway 287, at Moran (revised), and at mile 0.5.

DRAINAGE AREA.--160 sq mi. Mean altitude, 8,160 ft.

PERIOD OF RECORD.--July to November 1906 (gage heights only), July 1917 to September 1918 (no winter records), September 1944 to current year. Published as "near Moran" prior to October 1968.

GAGE.--Water-stage recorder. Altitude of gage is 6,720 ft (from topographic map). July 31 to Nov. 11, 1906, nonrecording gage at site 0.4 mile downstream at different datum. July 20, 1917, to Sept. 30, 1918, nonrecording 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.--25 years (1944-69), 262 cfs (22.24 inches per year, 189,800 acre-ft per year); 15-year base period (1952-67), 258 cfs.

EXTREMES.--Current year: Maximum discharge, 2,180 cfs May 28 (gage height, 5.41 ft); minimum daily, 42 cfs Mar. 9-15.

Period of record: Maximum discharge, 3,470 cfs May 21, 1954; maximum gage height, 5.00 ft in gage well, about 5.60 ft from outside gage, May 28, 1951; minimum daily discharge, 23 cfs Jan. 5, 1961.

REMARKS.--Records good except those for winter period, which are fair. No diversion or regulation.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-21, Mar. 26 to Apr. 16, May 2-14; stage-discharge relation affected by ice Nov. 15-20, Nov. 26 to Mar. 25)

Oct. 1 to May 14				May 15 to Sept. 30			
2.2	67	3.5	450	2.3	49	4.0	730
2.6	137	4.0	800	2.6	106	5.0	1,740
3.0	242	4.5	1,350	3.0	215	5.2	1,980
				3.5	420		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	66	50	47	50	46	76	302	1,030	529	99	63
2	84	64	52	56	50	46	76	298	981	505	93	62
3	84	68	53	56	50	45	76	373	954	464	88	60
4	84	72	55	56	50	45	76	440	1,020	431	86	59
5	82	66	55	56	50	45	78	478	1,100	400	88	57
6	80	64	55	54	50	45	82	472	1,140	385	84	55
7	80	63	54	54	50	44	84	818	1,290	390	84	55
8	76	63	54	54	50	43	80	920	1,170	380	82	52
9	74	60	54	54	53	42	80	970	999	330	82	52
10	78	59	54	54	56	42	92	1,080	909	301	82	52
11	76	59	54	52	58	42	108	1,140	786	281	82	54
12	74	59	51	52	60	42	117	1,170	738	274	111	55
13	78	60	48	52	60	42	135	1,280	802	267	108	55
14	94	60	52	50	54	42	148	1,360	660	263	108	54
15	104	59	52	48	54	42	148	1,420	608	278	80	54
16	92	58	52	50	54	44	144	1,190	565	271	80	54
17	79	57	52	52	54	46	153	1,250	511	246	78	54
18	79	57	52	54	52	48	165	1,390	493	222	78	54
19	87	58	52	57	50	50	165	1,810	487	209	76	59
20	79	59	52	60	50	55	180	1,760	553	196	74	99
21	82	60	50	60	50	56	212	1,670	695	181	74	133
22	76	64	44	58	50	60	313	1,490	595	170	71	106
23	78	64	44	56	50	70	430	1,500	547	162	71	80
24	74	64	50	55	50	72	488	1,620	541	148	71	76
25	74	63	50	58	50	73	400	1,750	608	140	71	71
26	74	60	50	60	50	74	334	1,820	634	135	71	67
27	70	56	50	55	48	74	294	1,900	589	130	69	67
28	70	52	50	50	47	73	298	1,820	614	125	69	67
29	70	50	50	50	-----	73	334	1,480	565	120	67	65
30	72	45	47	50	-----	80	338	1,380	535	106	65	69
31	72	-----	45	50	-----	76	-----	1,250	-----	106	65	-----
TOTAL	2,460	1,809	1,583	1,670	1,450	1,677	5,704	37,601	22,719	8,145	2,507	1,960
MEAN	79.4	60.3	51.1	53.9	51.8	54.1	190	1,213	757	263	80.9	65.3
MAX	104	72	55	60	60	80	488	1,900	1,290	529	111	133
MIN	70	45	44	47	47	42	76	298	487	106	65	52
CFSM	.50	.38	.32	.34	.32	.34	1.19	7.58	4.73	1.64	.51	.41
IN.	.57	.42	.37	.39	.34	.39	1.33	8.74	5.28	1.89	.58	.46
AC-FT	4,880	3,590	3,140	3,310	2,880	3,330	11,310	74,580	45,060	16,160	4,970	3,890
CAL YR 1968: TOTAL	86,805			MEAN 237	MAX 2,200	MIN 27	CFSM 1.48	IN 20.18	AC-FT 172,200			
WTR YR 1969: TOTAL	89,285			MEAN 245	MAX 1,900	MIN 42	CFSM 1.53	IN 20.75	AC-FT 177,100			

PEAK DISCHARGE (BASE, 1,300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-19	0330	5.30	2,030	6-7	0530	4.75	1,440
5-28	0230	5.41	2,180				

13-0119, Buffalo Fork above Lava Creek, near Moran, Wyo.

LOCATION.--Lat 43°50'14", long 110°26'21", in SE¼NE¼ sec.29, T.45 N., R.113 W., Teton County, in Grand Teton National Park, on right bank, underneath bridge on U.S. Highway 26, 287, about 2 miles upstream from Lava Creek, 3.5 miles east of Moran (revised), and 4 miles upstream from mouth.

DRAINAGE AREA.--355 sq mi.

PERIOD OF RECORD.--September 1965 to current year. July to November 1906, July 1917 to September 1918, and September 1944 to September 1960 at sites about 4 miles downstream.

GAGE.--Water-stage recorder. Datum of gage is 6,772.78 ft above mean sea level (U.S. Bureau of Public Roads bench mark).

EXTREMES.--Current year: Maximum discharge, 3,660 cfs June 8 (gage height, 6.51 ft); minimum daily, 82 cfs Jan. 28-31.

Period of record: Maximum discharge, 4,200 cfs June 23, 1968 (gage height, 6.80 ft); minimum daily, 82 cfs Jan. 28-31, 1969.

REMARKS.--Records good except those for winter period, which are fair. No regulation or significant diversions above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 8, 1968, to Apr. 8, 1969)

Oct. 1 to Apr. 8		Apr. 9 to June 8			June 9 to Sept. 30				
1.0	173	1.0	153	3.0	1,100	1.3	189	3.0	1,020
1.2	223	1.5	294	4.0	1,790	1.6	285	4.0	1,710
1.6	373	2.0	508	6.0	3,250	2.0	458	6.0	3,250

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	342	226	178	125	83	96	143	399	1,710	1,060	421	240
2	347	223	175	130	83	95	145	378	1,610	1,160	398	237
3	338	245	175	130	83	94	150	441	1,700	1,440	385	237
4	317	245	175	120	83	94	155	530	2,010	1,400	376	231
5	310	239	180	110	83	93	160	644	2,480	1,240	372	228
6	302	223	185	115	83	92	165	878	2,710	1,210	358	228
7	298	223	185	115	83	92	170	1,120	3,030	1,230	341	224
8	272	205	180	100	83	91	175	1,290	3,190	1,020	328	221
9	276	235	182	105	87	91	186	1,320	2,510	1,010	316	221
10	306	225	185	110	90	90	211	1,500	2,310	1,000	312	218
11	283	240	185	110	92	89	240	1,670	1,930	1,050	312	224
12	283	240	180	105	95	88	240	1,750	1,680	1,070	398	234
13	283	230	170	95	96	88	272	1,900	1,750	1,080	385	228
14	317	215	170	90	93	88	281	1,840	1,450	1,030	328	224
15	317	210	180	85	93	88	291	1,870	1,330	1,050	308	218
16	290	205	185	88	97	90	259	1,610	1,280	981	304	215
17	258	195	170	90	100	95	259	1,680	1,160	948	297	215
18	272	190	160	92	100	100	284	1,920	1,280	824	297	215
19	298	192	153	94	100	105	281	2,180	1,510	800	293	221
20	269	193	145	95	100	107	291	2,290	1,540	758	289	260
21	283	195	140	93	100	108	318	2,270	1,840	701	289	297
22	258	195	145	90	100	110	427	2,130	1,670	662	281	274
23	272	196	155	88	100	112	541	2,280	1,350	621	278	240
24	258	197	160	85	100	113	704	2,460	1,310	580	268	234
25	252	198	160	85	100	114	552	2,640	1,370	550	260	237
26	255	197	160	88	100	115	450	2,720	1,300	545	254	228
27	236	193	155	84	100	117	395	2,990	1,160	511	260	224
28	242	190	150	82	100	120	395	2,970	1,210	477	257	218
29	249	185	135	82	-----	125	450	2,520	1,080	463	250	218
30	245	180	125	82	-----	133	446	2,450	1,050	449	247	218
31	242	-----	120	82	-----	140	-----	2,180	-----	435	244	-----
TOTAL	8,770	6,325	5,103	3,045	2,607	3,173	9,036	54,820	51,510	27,355	9,706	6,927
MEAN	283	211	165	98.2	93.1	102	301	1,768	1,717	882	313	231
MAX	347	245	185	130	100	140	704	2,990	3,190	1,440	421	297
MIN	236	180	120	82	83	88	143	378	1,050	435	244	215
CFSM	.80	.59	.46	.28	.26	.29	.85	4.98	4.84	2.45	.88	.65
IN.	.52	.66	.53	.32	.27	.33	.95	5.74	5.40	2.87	1.02	.73
AC-FT	17,400	12,550	10,120	6,040	5,170	6,290	17,920	108,700	102,200	54,260	19,250	13,740

CAL YR 1968 TOTAL 222,159 MEAN 607 MAX 3,980 MIN 105 CFSM 1.71 IN 23.27 AC-FT 440,600
WTR YR 1969: TOTAL 188,377 MEAN 516 MAX 3,190 MIN 82 CFSM 1.45 IN 19.73 AC-FT 373,600

PEAK DISCHARGE (BASE, 3,100 CFS).--May 28 (0500) 3,330 cfs (6.08 ft); June 8 (0800) 3,660 cfs (6.51 ft).

CAL YR 1968:	TOTAL 1,578,170	MEAN 4,312	MAX 18,400	MIN 1,450	AC-FT 3,130,000
WTR YR 1969:	TOTAL 1,638,550	MEAN 4,489	MAX 15,300	MIN 1,400	AC-FT 3,250,000

13-0230. Greys River above reservoir, near Alpine, Wyo.

LOCATION (revised).--Lat 43°08'35", long 110°58'34", in SW¼SE¼ sec.34, T.37 N., R.118 W. (unsurveyed), Lincoln County, on right bank at Bridge Campground, 3 miles upstream from mouth, and 3.6 miles southeast of Alpine.

DRAINAGE AREA.--448 sq mi. Mean altitude, 8,080 ft.

PERIOD OF RECORD.--July to September 1917, June to September 1918, March 1937 to March 1939, October 1953 to current year. Published as Greys River near Alpine, Idaho, 1917-18 and as Greys River near Alpine, Wyo., 1937-39.

GAGE.--Water-stage recorder. Altitude of gage is 5,720 ft (from topographic map). July 6 to Sept. 30, 1917, and June 4 to Sept. 30, 1918, nonrecording gage and Mar. 17, 1937, to Mar. 31, 1939, water-stage recorder, at site 1.8 miles downstream, and October 1953 to Sept. 22, 1965, water-stage recorder at site 1 mile downstream at different datums.

AVERAGE DISCHARGE.--17 years (1937-38, 1953-69), 619 cfs (18.76 inches per year, 448,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,670 cfs May 28 (gage height, 4.07 ft); maximum gage height, 4.36 ft Dec. 3 (backwater from ice); minimum daily discharge, 165 cfs Mar. 11-15.

Period of record: Maximum discharge observed, 5,200 cfs June 14, 1918 (gage height, 4.85 ft, former site and datum); maximum gage height observed, 19.1 ft (former site and datum) about Dec. 18, 1965 (ice jam); minimum discharge, 111 cfs Dec. 7, 1960 (gage height, 2.45 ft, former site and datum).

REMARKS.--Records excellent except those for winter period, which are fair. Less than 500 acres irrigated by diversions from Greys River and tributaries above station. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEAR).--WRD Idaho 1967: 1966.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 16-20; stage-discharge relation affected by ice
Nov. 16, 18-20, Nov. 30 to Dec. 6, Dec. 21-25, Jan. 25-27, Feb. 6-17, 20-27, Mar. 1-19).

Oct. 1 to May 13				May 14 to Sept. 30	
1.2	140	3.0	1,110	3.0	1,110
1.6	264	3.5	1,630	3.5	1,710
2.0	440	4.0	2,330	4.0	2,650
2.5	743				

NOTE.--Same as preceding table below 3.1 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	343	297	210	205	185	180	326	1,140	1,480	783	450	330
2	339	290	215	210	185	180	371	1,140	1,440	770	455	318
3	339	301	220	210	185	180	446	1,330	1,430	770	460	318
4	339	322	220	210	185	180	435	1,460	1,440	770	450	314
5	339	314	230	210	185	180	478	1,550	1,490	750	445	305
6	339	301	210	210	185	180	578	1,780	1,570	743	440	301
7	335	279	204	210	185	180	565	1,990	1,560	756	430	301
8	330	264	227	205	185	175	501	2,020	1,500	736	420	305
9	318	318	247	200	190	170	468	2,020	1,520	704	420	314
10	326	297	250	200	195	170	578	2,080	1,380	684	420	322
11	326	290	261	200	200	165	710	2,110	1,250	672	420	339
12	326	297	247	195	200	165	717	2,230	1,160	653	430	335
13	330	294	244	190	205	165	797	2,190	1,290	634	430	326
14	399	261	220	190	205	165	830	2,240	1,120	621	430	330
15	430	264	271	190	205	165	892	2,220	1,060	634	420	322
16	380	262	279	195	205	170	851	1,910	1,040	640	415	322
17	343	261	271	200	205	180	921	1,930	965	615	410	322
18	339	260	261	205	201	190	981	2,180	921	596	405	318
19	330	260	254	210	198	210	936	2,160	892	565	400	318
20	339	260	240	240	195	198	1,000	2,280	928	553	390	335
21	343	261	230	270	195	189	1,150	2,110	958	547	380	384
22	335	271	220	270	190	201	1,410	2,120	907	530	370	330
23	326	268	220	258	185	214	1,700	2,010	844	530	360	314
24	322	264	220	214	180	195	1,760	2,050	885	512	350	314
25	322	271	225	205	180	189	1,380	2,160	914	507	345	305
26	318	233	225	200	180	198	1,160	2,260	914	507	340	301
27	314	240	225	195	180	208	1,040	2,300	858	490	335	294
28	305	244	220	190	180	211	1,070	2,350	844	485	335	290
29	305	198	215	185	-----	214	1,170	1,980	844	480	339	290
30	305	210	210	185	-----	237	1,220	1,840	797	470	339	294
31	305	-----	200	185	-----	275	-----	1,700	-----	460	339	-----
TOTAL	10,389	8,152	7,191	6,442	5,354	5,879	26,441	60,840	34,201	19,167	12,372	9,511
MEAN	335	272	232	208	191	190	881	1,963	1,140	618	399	317
MAX	430	322	279	270	205	275	1,760	2,350	1,570	783	460	384
MIN	305	198	200	185	180	165	326	1,140	797	460	335	290
CFSM	.75	.61	.52	.46	.43	.42	1.97	4.38	2.54	1.38	.89	.71
IN.	.86	.68	.60	.53	.44	.49	2.19	5.05	2.84	1.59	1.03	.79
AC-FT	20,610	16,170	14,260	12,780	10,620	11,660	52,440	120,700	67,840	38,020	24,540	18,860

CAL YR 1968 TOTAL 228,393 MEAN 624 MAX 2,990 MIN 195 CFSM 1.39 IN 18.96 AC-FT 453,000
WTR YR 1969: TOTAL 205,939 MEAN 564 MAX 2,350 MIN 165 CFSM 1.26 IN 17.10 AC-FT 408,500

PEAK DISCHARGE (BASE, 2,000 CFS).--Apr. 24 (0030) 2,380 cfs (3.98 ft); May 28 (0145) 2,670 cfs (4.07 ft).

SALT RIVER BASIN

13-0275. Salt River above reservoir, near Etna, Wyo.

LOCATION.--Lat 43°04'47", long 111°02'12", in SW¼NE¼ sec.28, T.36 N., R.119 W., Lincoln County, on right bank, 3.4 miles northwest of Etna, and at mile 8.0.

DRAINAGE AREA.--829 sq mi.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,675.78 ft above mean sea level.

AVERAGE DISCHARGE.--16 years, 704 cfs (510,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,070 cfs Apr. 24 (gage height, 3.91 ft); minimum, 349 cfs Dec. 31, result of freezeup (gage height, 1.72 ft).
Period of record: Maximum discharge, 2,790 cfs June 9, 1964 (gage height, 4.77 ft); minimum, 281 cfs Feb. 4, 1956 (gage height, 1.81 ft).

REMARKS.--Records excellent. Diversions above station for power developments, industry, municipal supply, and irrigation of about 66,000 acres (for details on adjudication of diversions, see Remarks for this station in WSP 1347). Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 27 to Mar. 16)

Oct. 1 to Apr. 7				Apr. 8 to Sept. 30			
1.8	385	2.3	670	2.1	500	3.5	1,685
2.0	480	2.6	920	2.5	795	4.0	2,160
				3.0	1,230		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	642	614	580	542	496	426	508	1,480	897	1,020	563	535
2	642	614	574	574	486	426	568	1,480	880	974	556	521
3	635	621	574	513	480	416	621	1,600	846	948	549	521
4	628	642	561	496	470	412	635	1,670	787	863	563	521
5	628	642	568	530	502	408	700	1,690	747	863	570	521
6	628	635	574	542	486	416	830	1,790	723	812	556	563
7	635	621	548	548	475	412	839	1,870	723	771	549	556
8	635	614	542	535	470	412	747	1,900	739	787	556	556
9	635	620	548	530	465	408	685	1,900	771	779	563	556
10	628	650	542	508	475	398	715	1,920	804	771	570	556
11	628	640	548	530	465	390	804	1,920	872	747	570	563
12	628	635	542	535	465	394	854	1,910	914	723	612	556
13	628	635	524	524	465	398	965	1,890	1,100	700	619	549
14	642	621	513	535	465	390	1,020	1,930	1,060	662	605	549
15	670	614	542	542	465	394	1,120	1,890	1,020	640	619	549
16	656	621	535	535	460	394	1,100	1,820	1,020	648	612	528
17	642	600	535	530	455	398	1,210	1,740	974	648	598	528
18	635	600	530	524	450	403	1,320	1,680	956	640	612	528
19	628	607	530	530	445	412	1,250	1,650	922	633	598	535
20	635	607	513	574	460	408	1,320	1,570	948	640	577	542
21	635	600	513	635	445	412	1,430	1,490	990	648	570	584
22	628	594	513	685	445	408	1,600	1,420	1,060	619	570	584
23	628	600	518	614	440	416	1,840	1,360	1,010	598	591	577
24	621	607	524	568	440	412	2,010	1,320	1,120	577	584	584
25	621	600	530	561	445	416	1,710	1,280	1,190	584	584	584
26	621	587	530	561	440	412	1,510	1,230	1,200	577	577	591
27	621	580	530	542	430	412	1,380	1,120	1,150	563	542	591
28	621	580	530	530	426	412	1,370	1,050	1,110	570	535	605
29	621	561	530	524	-----	421	1,460	982	1,100	570	535	605
30	621	561	518	513	-----	430	1,540	948	1,060	570	535	598
31	621	-----	403	508	-----	465	-----	922	-----	577	535	-----
TOTAL	19,587	18,323	16,562	16,918	12,911	12,731	33,661	48,422	28,693	21,722	17,775	16,736
MEAN	632	611	534	546	461	411	1,122	1,562	956	701	573	558
MAX	670	650	580	685	502	465	2,010	1,930	1,200	1,020	619	605
MIN	621	561	403	496	426	390	508	922	723	563	535	521
AC-FT	38,850	36,340	32,850	33,560	25,610	25,250	66,770	96,040	56,910	43,080	35,260	33,200
CAL YR 1968	TOTAL 265,467			MEAN 725		MAX 1,620		MIN 403		AC-FT 526,500		
WTR YR 1969	TOTAL 264,041			MEAN 723		MAX 2,010		MIN 390		AC-FT 523,700		

BEAR CREEK BASIN

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13-0320. Bear Creek above reservoir, near Irwin, Idaho

LOCATION (revised).--Lat 43°17'00", long 111°13'17", in SE&SE¼ sec.31, T.1 S., R.45 E., Bonneville County, on left bank 0.5 mile downstream from Elk Creek, 0.2 mile upstream from maximum flow line of Palisades Reservoir, and 6.4 miles south of Irwin.

DRAINAGE AREA.--77.1 sq mi. Mean altitude, 7,130 ft.

PERIOD OF RECORD.--July to September 1917, June to September 1918, May to July 1934, April to October 1935, April to October 1936, August 1953 to current year. Published as Bear Creek near Irwin, 1917-18, 1934-36.

GAGE.--Water-stage recorder. Altitude of gage is 5,626.0 ft, unadjusted (planetable survey). Prior to Nov. 1, 1936, nonrecording gage at site 4 miles downstream at different datum.

AVERAGE DISCHARGE.--16 years (1953-69), 75.6 cfs (13.32 inches per year, 54,770 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 620 cfs Apr. 23 (gage height, 5.08 ft); minimum, 18 cfs Dec. 28; minimum gage height, 2.99 ft Mar. 3.

Period of record: Maximum discharge observed, 784 cfs May 5, 1936; minimum, about 1.0 cfs Jan. 20, 1954 (gage height, 1.08 ft), result of freezeup.

REMARKS.--Records excellent except those for winter period, which are good. No diversion above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 13 to June 10; stage-discharge relation affected by ice
Nov. 16-18, 26, 27, Nov. 29 to Dec. 1, Dec. 7-10, 13, 14, 19-23, Dec. 29 to Jan. 5, Jan. 9-12, Jan. 25 to Feb. 18, Feb. 20, 26-28, Mar. 3-16)

3.0	17	4.0	190
3.2	38	4.5	350
3.5	86	5.0	550

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	28	25	22	32	24	79	251	227	91	50	36
2	30	27	25	24	32	23	97	269	215	91	50	36
3	30	28	25	26	30	23	112	322	210	90	48	36
4	30	32	25	26	30	23	112	362	202	86	48	36
5	28	31	25	30	29	22	129	406	200	84	50	36
6	28	30	25	32	28	23	150	458	192	83	47	34
7	28	28	25	33	28	23	135	498	185	86	46	34
8	28	26	25	30	28	23	119	498	178	81	44	34
9	28	31	26	28	29	22	112	498	170	79	42	34
10	30	30	26	26	30	22	117	506	168	78	42	36
11	28	28	25	27	30	21	131	498	156	74	44	36
12	28	30	25	29	28	21	135	494	152	72	55	33
13	28	28	24	30	28	21	163	498	161	71	47	33
14	33	27	24	31	26	21	158	494	145	72	44	32
15	33	27	25	37	24	21	163	466	139	74	44	31
16	31	27	24	33	25	22	158	418	133	72	42	31
17	28	25	23	31	25	23	188	410	129	72	42	31
18	28	26	23	28	25	24	208	418	125	67	42	31
19	28	27	23	27	25	25	198	414	121	66	41	32
20	28	27	23	31	24	24	202	394	119	64	41	38
21	30	26	23	46	24	27	245	362	123	63	40	34
22	28	26	23	61	23	26	326	342	121	61	38	33
23	28	26	24	67	24	27	470	330	114	59	38	32
24	27	26	26	58	23	26	482	326	119	59	37	32
25	27	27	27	40	24	27	330	330	117	59	37	31
26	27	26	25	36	24	28	266	330	112	56	37	31
27	27	26	24	35	24	31	239	318	106	55	37	31
28	27	26	23	35	24	31	248	296	100	55	37	30
29	28	25	22	34	-----	36	275	272	97	55	37	30
30	28	25	21	33	-----	46	275	263	93	53	37	30
31	28	-----	20	33	-----	61	-----	251	-----	52	37	-----
TOTAL	888	822	749	1,059	746	817	6,012	11,992	4,429	2,180	1,321	994
MEAN	28.6	27.4	24.2	34.2	26.6	26.4	200	387	148	70.3	42.6	33.1
MAX	33	32	27	67	32	61	482	506	227	91	55	38
MIN	27	25	20	22	23	21	79	251	93	52	37	30
CFSM	.37	.36	.31	.44	.35	.34	2.60	5.02	1.91	.91	.55	.43
IN.	.43	.40	.36	.51	.36	.39	2.90	5.78	2.14	1.05	.64	.48
AC-FT	1,760	1,630	1,490	2,100	1,480	1,620	11,920	23,790	8,780	4,320	2,620	1,970

CAL YR 1968: TOTAL 29,423
WTR YR 1969: TOTAL 32,009

MEAN 80.4
MEAN 87.7

MAX 406
MAX 506

MIN 17
MIN 20

CFSM 1.04
CFSM 1.14

IN 14.19
IN 15.44

AC-FT 58,360
AC-FT 63,490

PEAK DISCHARGE (BASE, 350 CFS).--Apr. 23 (2330) 620 cfs (5.08 ft); May 7 (2330) 590 cfs (4.99 ft).

13-0324.5 Palisades Reservoir near Irwin, Idaho

LOCATION (revised).--Lat 43°19'49", long 111°12'20", in NW¼SE¼ sec.17, T.1 S., R.45 E., Bonneville County, on Snake River 3.5 miles upstream from Palisades Creek, 7 miles southeast of Irwin, and at mile 902.0.

DRAINAGE AREA.--5,208 sq.-mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. 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 is 0.10 ft lower.

EXTREMES.--Current year: Maximum contents, 1,402,000 acre-ft July 1-5; maximum elevation, 5,620.09 ft July 1; minimum, 848,900 acre-ft Sept. 30 (elevation, 5,579.51 ft).
Period of record: Maximum contents, 1,421,000 acre-ft June 17, 18, 1963 (elevation, 5,621.17 ft); minimum observed, 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 (elevation, 5,502.3 ft).

REMARKS.--Reservoir is formed by earth-fill, rock-faced dam; partial storage began in October 1955; full storage began in November 1956. Capacity, 1,400,000 acre-ft between elevations 5,372 (river level at original outlet tunnels) and 5,620 ft. Dead storage 44,100 acre-ft at elevation 5,452.43 ft, elevation of completed outlet tunnels. Inactive storage for minimum power head, 199,600 acre-ft at elevation 5,497.5 ft. Water is used for irrigation in Snake River valley. Figures given herein represent total storage.

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

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

5,570	748.2
5,580	855.1
5,600	1,101
5,620	1,402

CONTENTS, IN THOUSANDS OF ACRE FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1295.00	1260.00	1270.00	1250.00	1240.00	1221.00	1098.00	982.90	1255.00	1402.00	1178.00	943.20
2	1292.00	1260.00	1270.00	1249.00	1240.00	1221.00	1087.00	982.00	1253.00	1402.00	1168.00	938.20
3	1291.00	1261.00	1269.00	1248.00	1239.00	1218.00	1076.00	983.60	1250.00	1402.00	1157.00	932.20
4	1289.00	1263.00	1268.00	1247.00	1237.00	1213.00	1065.00	986.10	1248.00	1402.00	1147.00	925.00
5	1287.00	1264.00	1268.00	1247.00	1236.00	1209.00	1055.00	990.30	1247.00	1402.00	1138.00	917.80
6	1285.00	1265.00	1268.00	1247.00	1235.00	1208.00	1046.00	998.40	1251.00	1401.00	1128.00	913.10
7	1282.00	1265.00	1267.00	1247.00	1234.00	1207.00	1038.00	1010.00	1255.00	1399.00	1118.00	909.80
8	1279.00	1266.00	1267.00	1247.00	1234.00	1206.00	1028.00	1025.00	1261.00	1394.00	1109.00	906.70
9	1276.00	1267.00	1266.00	1247.00	1234.00	1206.00	1020.00	1038.00	1266.00	1390.00	1099.00	901.50
10	1273.00	1268.00	1266.00	1245.00	1233.00	1204.00	1013.00	1052.00	1270.00	1383.00	1090.00	895.90
11	1269.00	1269.00	1265.00	1244.00	1233.00	1203.00	1006.00	1069.00	1274.00	1375.00	1081.00	890.70
12	1266.00	1270.00	1265.00	1245.00	1232.00	1201.00	1001.00	1087.00	1279.00	1366.00	1074.00	885.40
13	1263.00	1270.00	1264.00	1245.00	1232.00	1199.00	994.30	1105.00	1285.00	1357.00	1067.00	881.10
14	1261.00	1270.00	1263.00	1245.00	1231.00	1198.00	988.70	1121.00	1294.00	1347.00	1060.00	876.80
15	1260.00	1270.00	1263.00	1245.00	1230.00	1197.00	983.80	1135.00	1301.00	1339.00	1053.00	872.40
16	1260.00	1271.00	1263.00	1245.00	1231.00	1196.00	978.40	1146.00	1307.00	1331.00	1046.00	868.90
17	1259.00	1271.00	1262.00	1245.00	1230.00	1196.00	974.10	1154.00	1311.00	1322.00	1040.00	865.40
18	1258.00	1270.00	1262.00	1245.00	1227.00	1194.00	970.80	1164.00	1315.00	1313.00	1034.00	861.70
19	1259.00	1271.00	1261.00	1245.00	1226.00	1192.00	966.80	1175.00	1319.00	1303.00	1028.00	858.20
20	1259.00	1271.00	1260.00	1247.00	1225.00	1185.00	963.80	1183.00	1323.00	1293.00	1022.00	855.80
21	1259.00	1272.00	1259.00	1249.00	1224.00	1178.00	962.90	1191.00	1329.00	1282.00	1016.00	854.30
22	1259.00	1272.00	1258.00	1251.00	1224.00	1171.00	964.40	1196.00	1339.00	1271.00	1009.00	851.90
23	1259.00	1272.00	1257.00	1251.00	1224.00	1164.00	970.00	1201.00	1349.00	1261.00	1003.00	850.30
24	1259.00	1272.00	1257.00	1251.00	1224.00	1157.00	979.10	1206.00	1358.00	1252.00	996.40	849.40
25	1259.00	1272.00	1257.00	1250.00	1224.00	1150.00	983.40	1213.00	1368.00	1243.00	989.80	849.40
26	1259.00	1272.00	1257.00	1251.00	1224.00	1143.00	984.30	1221.00	1379.00	1234.00	982.60	850.10
27	1260.00	1271.00	1257.00	1251.00	1223.00	1135.00	983.40	1230.00	1386.00	1227.00	975.90	850.50
28	1260.00	1271.00	1257.00	1250.00	1222.00	1128.00	982.40	1239.00	1390.00	1219.00	968.90	850.50
29	1259.00	1270.00	1256.00	1248.00	-----	1121.00	982.90	1246.00	1395.00	1209.00	962.00	850.00
30	1260.00	1270.00	1254.00	1245.00	-----	1114.00	982.90	1251.00	1401.00	1199.00	955.40	848.90
31	1260.00	-----	1251.00	1241.00	-----	1107.00	-----	1255.00	-----	1189.00	948.60	-----
MEAN	1268.26	1268.53	1262.16	1247.19	1230.29	1182.00	1004.31	1123.75	1308.60	1319.65	1053.05	880.17
MAX	1295.00	1272.00	1270.00	1251.00	1240.00	1221.00	1098.00	1255.00	1401.00	1402.00	1178.00	943.20
MIN	1258.00	1260.00	1251.00	1241.00	1222.00	1107.00	962.90	982.00	1247.00	1189.00	948.60	848.90
(†)	5611.05	5611.66	5610.42	5609.77	5608.52	5600.47	5591.01	5610.69	5619.97	5606.24	5588.19	5579.51
(‡)	-35	-10	-19	-10	-19	-115	-124.1	+272.1	+146	-212	-240.4	-99.7

CAL YR 1968: MEAN 1,231.4 MAX 1,389 MIN 1,086 ‡ +165
WTR YR 1969: MEAN 1,179.3 MAX 1,402 MIN 848.9 ‡ -496.1

† Elevation, in feet, at end of month.

‡ Change in contents, in thousands of acre-feet.

LOCATION.--Lat 43°21'03", long 111°13'06", in NE¼NE¼ sec.7, T.1 S., R.45 E., Bonneville County, on right bank at Bureau of Reclamation headquarters, 1.5 miles downstream from Palisades Dam, 2 miles upstream from Palisades Creek, 5 miles southeast of Irwin, and at mile 900.2.

PERIOD OF RECORD.--March to October 1935, April to October 1936, May 1949 to current year. Records for station "at Calamity Point, near Irwin" April to August 1934, April to October 1935, April to October 1936, March 1939 to September 1941 are equivalent to those for this station.

GAGE.--Water-stage recorder. Datum of gage is 5,353.00 ft above mean sea level, Mar. 30, 1935, to Oct. 31, 1936, water-stage recorder at site 3.5 miles downstream at different datum. May 1, 1949, to Mar. 22, 1950, non-recording gage at site 1,100 ft downstream at datum 1.9 ft higher.

AVERAGE DISCHARGE.--20 years (1949-69), 6,356 cfs (4,605,000 acre-ft per year); 15-year base period (1952-67), 6,075 cfs.

EXTREMES.--Current year: Maximum discharge, 15,200 cfs May 23, 24 (gage height, 9.85 ft); minimum, 1,650 cfs Oct. 31 (gage height, 5.04 ft).

Period of record: 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.--Records excellent. Flow partly regulated by Jackson Lake (see sta 13-0105) and Palisades Reservoir (see sta 13-0324.5). About 93,000 acres in Wyoming and Idaho irrigated by diversions from tributaries above station.

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

REVISIONS.--WSP 1217: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 16 to Aug. 4, Sept. 12-30)

5.0	1,520	8.0	8,740
6.0	3,280	10.0	15,800
7.0	5,770		

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,630	2,850	2,820	3,050	3,110	2,960	7,990	11,400	13,900	8,840	11,700	8,170
2	4,850	2,720	2,920	3,000	2,800	2,700	9,030	11,400	13,900	9,850	11,800	7,940
3	4,850	2,580	3,080	3,040	3,180	3,670	9,490	11,400	13,800	9,870	11,700	8,390
4	4,850	2,820	3,060	3,070	3,060	5,130	9,500	11,400	13,800	9,830	11,500	8,980
5	4,850	2,820	3,120	2,820	3,170	4,210	9,490	11,300	13,200	9,840	11,400	9,090
6	4,850	2,840	3,050	2,960	3,230	3,070	9,520	10,500	12,600	9,860	11,400	7,680
7	4,850	2,850	2,940	2,960	3,140	3,010	9,530	9,890	12,600	10,300	11,200	6,970
8	4,850	2,850	2,760	2,960	2,860	2,940	9,530	9,890	12,600	11,000	10,900	6,970
9	4,870	2,840	3,060	3,040	2,580	2,590	9,530	9,860	12,300	11,100	10,800	8,000
10	4,850	2,740	2,990	3,060	3,050	2,960	9,530	9,860	12,200	11,900	10,800	8,310
11	4,850	2,740	3,040	3,040	2,760	3,080	10,000	9,860	11,600	12,300	10,800	8,160
12	4,830	2,850	2,930	2,850	2,920	3,160	11,100	9,860	11,200	12,700	10,500	8,240
13	4,830	2,830	2,960	3,060	2,940	3,080	11,500	10,300	10,600	12,700	10,300	7,590
14	4,820	2,930	2,950	3,050	3,040	2,990	11,500	11,300	9,570	12,700	9,810	7,590
15	3,830	2,940	2,730	3,000	2,580	2,870	11,500	12,300	9,060	12,700	9,530	7,590
16	3,800	2,910	3,000	3,000	2,530	2,660	11,400	12,800	9,060	12,700	9,560	7,080
17	3,450	2,810	2,970	3,010	3,440	3,140	11,400	12,800	9,000	12,700	9,390	7,100
18	3,440	2,890	2,990	2,960	3,580	2,900	11,500	12,800	9,000	12,800	9,150	7,190
19	3,040	2,810	2,590	2,680	3,080	3,930	11,500	13,100	8,960	12,800	9,030	7,190
20	3,040	2,830	3,010	2,940	2,960	5,640	11,500	14,400	8,900	12,800	9,030	7,020
21	3,060	2,920	3,040	3,110	2,570	6,090	11,500	14,900	8,900	12,800	9,090	6,830
22	2,980	2,850	2,800	3,050	2,760	6,080	11,500	15,000	8,580	12,800	9,080	7,070
23	2,950	2,970	2,930	3,120	2,380	6,100	11,500	14,900	7,870	11,900	9,130	6,350
24	2,990	2,770	3,120	3,080	2,770	6,100	11,500	15,000	7,620	11,900	9,150	6,110
25	2,950	2,900	2,830	2,930	2,960	6,100	11,500	15,000	7,590	11,400	9,190	5,530
26	2,910	3,010	2,980	2,640	2,690	6,100	11,400	15,000	7,560	11,300	9,180	5,040
27	2,920	3,070	3,050	2,860	2,690	6,130	11,400	15,000	8,140	10,700	9,220	4,850
28	2,900	3,000	2,930	3,250	2,820	6,130	11,400	14,900	8,770	10,700	9,210	4,840
29	2,900	3,040	2,860	4,100	-----	6,130	11,400	14,600	8,020	11,600	9,040	4,860
30	2,900	3,070	3,100	4,140	-----	6,150	11,400	13,900	7,530	11,700	8,800	4,840

CAL YR 1968: TOTAL	2,170,61C	MEAN 5,931	MAX 17,700	MIN 1,030	AC-FT 4,305,00C
WTR YR 1969: TOTAL	2,508,34C	MEAN 6,872	MAX 15,00C	MIN 2,37C	AC-FT 4,975,00C

13-0375. Snake River near Heise, Idaho

LOCATION (revised).--Lat 43°36'45", long 111°39'33", in SE¼SW¼ sec.5, T.3 N., R.41 E., Bonneville County, on left bank 850 ft upstream from Anderson canal headgate, 2.4 miles upstream from Heise, 6 miles east of Ririe, 24 miles upstream from Henrys Fork, and at mile 861.6.

DRAINAGE AREA.--5,752 sq mi. Mean altitude, 7,770 ft.

PERIOD OF RECORD.--September 1910 to current year. 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. Prior to July 9, 1913, nonrecording 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.--59 years, 6,808 cfs (4,932,000 acre-ft per year); 15-year base period (1952-67), 6,596 cfs.

EXTREMES.--Current year: Maximum discharge, 16,100 cfs May 21 (gage height, 6.24 ft); minimum, 2,040 cfs Oct. 31 (gage height, 1.54 ft).

Period of record: 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.--Records excellent. Flow partly regulated by Jackson Lake (see sta 13-0105) and Palisades Reservoir (see sta 13-0324.5). Some diurnal fluctuations during winter from powerplant operations at Palisades. Station is above all irrigation diversions from main river except Riley ditch (5,190 acre-ft diverted during year) which diverts 1.5 miles upstream from station. About 107,000 acres in Wyoming and Idaho irrigated by diversions from tributaries above station. Records of chemical analysis and water temperatures published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1217: Drainage area. WSP 1347: 1912.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 21 to Sept. 12; stage-discharge relation affected
by ice Dec. 30, 31)

2.0	2,900	5.0	12,000
3.0	5,370	6.0	15,700
4.0	8,470	7.0	20,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,740	3,050	3,500	3,600	4,060	3,270	8,500	12,500	14,600	8,640	12,100	8,880
2	5,260	3,250	3,430	3,550	3,360	3,270	9,640	12,500	14,600	10,600	12,100	8,140
3	5,230	3,160	3,620	3,480	3,500	3,460	10,400	12,700	14,600	10,400	12,100	8,540
4	5,230	3,210	3,690	3,590	3,590	5,310	10,400	12,800	14,600	10,400	12,000	9,120
5	5,260	3,270	3,670	3,480	3,620	5,340	10,400	12,800	14,400	10,300	11,700	9,430
6	5,290	3,300	3,620	3,410	3,740	3,570	10,400	12,600	13,500	10,200	11,700	8,710
7	5,270	3,300	3,550	3,480	3,620	3,500	10,400	11,600	13,500	10,300	11,700	7,160
8	5,290	3,270	3,360	3,500	3,500	3,250	10,300	11,600	13,500	11,200	11,400	7,130
9	5,290	3,430	3,520	3,520	3,050	3,210	10,300	11,500	13,300	11,100	11,200	7,610
10	5,250	3,230	3,550	3,590	3,410	3,230	10,300	11,500	13,100	12,000	11,300	8,740
11	5,290	3,210	3,620	3,640	3,410	3,520	10,500	11,500	12,900	12,400	11,300	8,340
12	5,290	3,270	3,520	3,390	3,390	3,590	11,600	11,500	12,100	12,900	11,200	8,440
13	5,310	3,340	3,480	3,480	3,460	3,620	12,300	11,700	11,900	12,900	10,800	8,070
14	5,370	3,360	3,480	3,640	3,500	3,480	12,300	12,400	10,800	13,000	10,500	7,840
15	4,770	3,430	3,320	3,520	3,570	3,430	12,300	13,300	10,100	13,100	10,000	7,810
16	4,310	3,460	3,360	3,520	3,160	3,100	12,300	14,000	10,000	13,100	10,000	7,480
17	4,080	3,250	3,500	3,480	3,460	3,480	12,300	14,000	9,960	13,100	9,990	7,260
18	3,880	3,430	3,480	3,480	4,140	3,460	12,400	14,000	9,920	13,200	9,740	7,290
19	3,670	3,390	3,480	3,250	3,910	4,110	12,400	14,100	9,850	13,200	9,500	7,350
20	3,500	3,320	3,460	3,460	3,410	5,340	12,500	15,000	9,850	13,200	9,460	7,320
21	3,500	3,320	3,460	4,010	3,430	6,310	12,600	16,000	9,850	13,300	9,500	7,070
22	3,460	3,430	3,250	3,880	3,320	6,400	12,800	15,900	9,710	13,300	9,460	7,190
23	3,410	3,160	3,250	3,620	3,010	6,460	13,100	15,900	8,840	12,600	9,500	6,940
24	3,410	3,390	3,620	3,670	2,990	6,430	13,300	15,900	8,470	12,300	9,500	6,370
25	3,410	3,430	3,430	3,480	3,430	6,430	13,000	15,900	8,440	12,000	9,540	5,980
26	3,360	3,520	3,430	3,120	3,230	6,430	12,800	15,900	8,340	11,800	9,540	5,570
27	3,320	3,640	3,550	3,230	3,190	6,460	12,600	15,800	8,540	11,300	9,540	5,370
28	3,320	3,640	3,500	3,550	3,250	6,520	12,600	15,600	9,500	11,200	9,500	5,260
29	3,320	3,620	3,300	4,310	-----	6,610	12,600	15,500	9,320	11,700	9,460	5,290
30	3,320	3,690	3,400	4,660	-----	6,730	12,600	14,600	8,110	12,100	9,180	5,230
31	2,940	-----	3,700	4,630	-----	7,130	-----	14,600	-----	12,100	9,150	-----
TOTAL	134,410	100,770	108,100	112,220	96,710	146,450	349,940	425,200	336,200	368,940	323,660	220,930
MEAN	4,336	3,359	3,487	3,620	3,454	4,724	11,660	13,720	11,210	11,900	10,440	7,364
MAX	5,370	3,690	3,700	4,660	4,140	7,130	13,300	16,000	14,600	13,300	12,100	9,430
MIN	2,940	3,050	3,250	3,120	2,990	3,100	8,500	11,500	8,110	8,640	9,150	5,230
AC-FT	266,600	199,900	214,400	222,600	191,800	290,500	694,100	843,400	666,800	731,800	642,000	438,200
ADJUSTED* FOR STORAGE IN JACKSON LAKE AND PALISADES RESERVOIR												
MEAN	4,129	3,675	3,248	3,809	3,299	2,810	8,583	20,930	15,090	7,683	4,560	3,847
AC-FT	253,900	218,700	199,700	234,200	183,200	172,800	510,700	1,287M	897,800	472,400	280,400	228,900
OBSERVED												
CAL YR 1968: TOTAL	2,388,150	MEAN 6,525		MAX 18,900		MIN 1,350		AC-FT 4,737,000		MEAN 6,792		AC-FT 4,931M
WAL YR 1969: TOTAL	2,723,530	MEAN 7,462		MAX 16,000		MIN 2,940		AC-FT 5,402,000		MEAN 6,824		AC-FT 4,940M

* No account taken for time of travel between reservoirs and Heise gaging station.
M Expressed in thousands.

HENRYS FORK BASIN

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13-0395. Henrys Fork near Lake, Idaho

LOCATION.--Lat 44°35'42", long 111°20'57", in NE¼SW¼ sec.26, T.15 N., R.43 E., Fremont County, on left bank 0.2 mile downstream from Henrys Lake Dam, 5.4 miles south of former Lake Post Office, and at mile 123.7.

DRAINAGE AREA.--99.3 sq mi including 6.2 sq mi of Dry Creek Basin.

PERIOD OF RECORD.--May 1920 to current year (prior to October 1929, 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, nonrecording gage at site 3 miles downstream and below mouth of Dry Creek at different datum.

AVERAGE DISCHARGE.--40 years (1929-69), 49.8 cfs (36,080 acre-ft per year); 15-year base period (1952-67), 52.8 cfs.

EXTREMES.--Current year: Maximum discharge, 321 cfs June 27 (gage height, 2.26 ft); minimum daily, 20 cfs Nov. 17-21.

Period of record: Maximum discharge, 907 cfs June 13, 1926 (gage height, 5.40 ft); no flow for part of each day Sept. 17, 18, 1952, Sept. 5, 7-30, Oct. 1, 2, 1966. Outflow from Henrys Lake was reported to have ceased entirely late in summer of 1889.

REMARKS.--Records good except those for period Nov. 25 to Mar. 26, which are fair. Flow regulated by Henrys Lake (see sta 13-0390). Since 1923, floodwaters of Dry (Tyghee) Creek have been diverted at times into Henrys Lake (some diverted during 1969).

REVISIONS.--WSP 1217: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	ALG	SEP
1	51	50	22	25	34	41	163	206	42	285	197	204
2	51	51	22	25	35	41	157	204	42	274	195	206
3	51	51	22	25	35	41	151	204	42	267	195	206
4	51	51	22	26	35	41	146	204	40	257	195	208
5	51	51	22	26	35	41	144	202	39	250	193	150
6	51	51	22	25	35	42	142	202	39	250	191	40
7	51	51	22	26	35	42	144	202	39	241	193	40
8	51	50	22	27	36	42	144	197	41	230	191	41
9	51	50	22	27	36	42	142	199	51	206	191	42
10	51	50	22	27	36	42	138	193	62	146	191	44
11	50	49	22	28	36	42	136	193	59	144	191	44
12	50	49	22	28	37	42	134	193	62	142	191	44
13	50	49	22	28	37	68	130	187	63	142	191	44
14	51	49	23	28	37	93	128	173	60	142	187	44
15	51	49	23	29	38	92	128	175	62	157	187	42
16	51	35	23	29	38	91	128	175	63	224	185	42
17	51	20	23	29	38	90	128	175	76	221	187	42
18	51	20	23	30	38	90	162	124	115	217	187	42
19	51	20	23	30	39	89	224	90	117	215	187	42
20	53	20	23	30	39	88	221	90	114	215	185	42
21	53	20	23	30	39	87	217	90	111	213	187	41
22	53	21	23	31	39	86	217	90	115	210	191	41
23	53	21	23	31	39	85	217	90	114	210	193	41
24	53	21	23	31	40	84	217	72	123	215	193	41
25	51	21	23	32	40	83	215	40	140	213	195	41
26	51	21	23	32	40	82	213	41	232	208	197	41
27	51	21	23	32	40	131	208	41	302	206	197	46
28	51	21	24	33	40	195	206	42	299	204	197	61
29	51	21	24	33	-----	183	206	42	295	202	199	60
30	51	21	24	33	-----	177	206	45	287	202	202	58
31	51	-----	24	34	-----	169	-----	44	-----	199	202	-----
TOTAL	1,588	1,075	704	900	1,046	2,562	5,112	4,225	3,246	6,507	5,967	2,080
MEAN	51.2	35.8	22.7	29.0	37.4	82.6	170	136	108	210	192	69.3
MAX	53	51	24	34	40	195	224	206	302	285	202	208
MIN	50	20	22	25	34	41	128	40	39	142	185	40
AC-FT	3,150	2,130	1,400	1,790	2,070	5,080	10,140	8,380	6,440	12,910	11,840	4,130
CAL YR 1968: TOTAL	24,276			MEAN 66.3	MAX 274	MIN 20	AC-FT 48,150					
WTR YR 1969: TOTAL	35,012			MEAN 95.9	MAX 302	MIN 20	AC-FT 69,450					

HENRYS FORK BASIN

13-0420. Island Park Reservoir near Island Park, Idaho

LOCATION.--Lat 44°25'11", long 111°23'50", in NE¼SE¼ sec.29, T.13 N., R.43 E., Fremont County, in gatehouse shaft at dam on Henrys Fork, 0.5 mile upstream from Buffalo River, 1.3 miles west of Island Park Post Office, and at mile 93.0.

DRAINAGE AREA.--481 sq mi.

PERIOD OF RECORD.--November 1938 to current year.

GAGE.--Electric tape gage read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents, 138,400 acre-ft May 30 (elevation, 6,303.39 ft); minimum, 52,100 acre-ft Sept. 30 (elevation, 6,289.34 ft).

Period of record: Maximum contents, 142,200 acre-ft May 24, 1967 (elevation, 6,303.85 ft); minimum after first filling of reservoir in May 1939, 5,280 acre-ft Sept. 29, 1966 (elevation, 6,260.77 ft).

REMARKS.--Reservoir is formed by earth-fill rock-faced dam. Storage began Nov. 15, 1938. Capacity, 127,300 acre-ft between elevations 6,239 ft (normal low-water level with outlet gates open) and 6,302 ft (crest of spillway). Natural flow passing through reservoir when outlet gates are open limits withdrawal of storage to elevation 6,230 ft (sill of lower outlet). Dead storage negligible. Water is used for irrigation of lands in Fremont-Madison irrigation district between Ashton and Rexburg. Figures given herein represent usable contents.

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

REVISIONS.--WSP 1217: Drainage area.

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

6,289	50,800
6,295	79,600
6,300	112,200
6,304	143,400

CONTENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90200	92000	111400	108200	108900	102100	96100	102500	137900	137400	100000	65000
2	90400	93000	111400	108000	108700	101800	96000	102700	137700	137200	98500	63900
3	90400	93900	111300	107800	108700	101400	96000	103000	137500	136800	97000	62900
4	90500	95000	111200	107600	108700	100900	96100	103800	137200	136500	95200	62200
5	90500	96000	111200	107500	108100	100500	96100	105600	137100	136400	93500	61700
6	90500	96800	111000	107300	108000	100200	96400	107200	136700	136300	91900	61200
7	90600	97700	110900	107200	108000	99900	96700	109000	136600	136100	90200	60500
8	90600	98700	110700	107000	107900	99500	96600	110100	136300	136100	88500	59900
9	90700	99700	110500	106900	107700	99000	96600	111000	136300	136000	86800	59200
10	90700	100700	110400	106900	107500	98500	96500	111300	136100	135900	85300	58500
11	90600	101700	110200	106800	107500	98600	96400	111900	136300	135600	83600	57900
12	90400	102700	110100	106900	107100	98500	96500	112300	136200	134800	82500	57200
13	90600	104000	109900	107000	107000	98500	96600	113100	135900	133200	80700	56500
14	90800	104800	109800	107200	106700	98500	96800	115300	135900	131600	79700	55900
15	90900	105700	109700	107400	106500	98300	97000	118300	135900	130000	78600	55100
16	91200	106800	109500	107200	106100	98300	97100	120900	134900	128100	77500	54400
17	91300	107700	109600	107000	105600	98400	97300	123200	135000	126400	76400	54100
18	91300	108400	109400	106900	105400	98200	97500	125500	135000	124900	75300	53800
19	91200	109400	109300	107000	105000	98000	98100	127300	135000	123600	74200	53600
20	91200	110300	109100	107200	104700	97800	98500	129300	135000	121800	73300	53200
21	91200	111200	108900	108000	104200	97600	99000	130600	135400	120000	72700	53100
22	91000	111400	108700	108900	104000	97500	99500	131400	135600	118300	72200	53000
23	91700	111500	108600	108900	103800	97300	100200	132700	135500	116500	71700	52900
24	91800	111500	108600	108800	103600	97100	101000	134100	136100	114600	71200	52800
25	91900	111500	108700	108700	103400	96900	101800	135600	136900	112700	70700	52700
26	91800	111400	108900	108800	103100	96700	101900	136500	137200	110600	70200	52600
27	91800	111300	108900	109000	102800	96400	101700	137400	137100	108500	69700	52400
28	91700	111200	108800	108900	102500	96200	101500	138000	137500	106500	69200	52400
29	91700	111200	108700	108800	-----	96200	101600	138200	137600	104700	68100	52300
30	91600	111300	108500	108800	-----	96200	102300	138400	137600	103100	67100	52100
31	92000	-----	108400	108700	-----	96100	-----	138000	-----	101600	66000	-----
MEAN	91058	104617	109752	107784	106114	98423	98180	121103	136367	124897	79919	56433
MAX	92000	111500	111400	109000	108900	102100	102300	138400	137900	137400	100000	65000
MIN	90200	92000	108400	106800	102500	96100	96000	102500	134900	101600	66000	52100
(†)	6,297.03	6,299.87	6,299.46	6,299.51	6,298.61	6,297.66	6,298.58	6,303.35	6,303.30	6,298.48	6,292.48	6,289.34
(‡)	+1,840	+19,300	-2,900	+300	-6,200	-6,400	+6,200	+35,700	-400	-36,000	-35,600	-13,900

CAL YR 1968: MEAN 114,470 MAX 137,300 MIN 82,800 ‡ -190

WTR YR 1969: MEAN 102,900 MAX 138,400 MIN 52,100 -38,060

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

HENRYS FORK BASIN

83

13-0425. Henrys Fork near Island Park, Idaho

LOCATION.--Lat 44°24'59", long 111°23'41", in SW¼SW¼ sec.28, T.13 N., R.43 E., Fremont County, on left bank 0.2 mile downstream from Island Park Dam, 0.2 mile upstream from Buffalo River, 1 mile southwest of Island Park Post Office, and at mile 92.9.

DRAINAGE AREA.--481 sq mi. Mean altitude, 7,080 ft.

PERIOD OF RECORD.--January 1933 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,225 ft (from river-profile map). Prior to May 15, 1935, non-recording gage at site about 0.8 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.--36 years, 567 cfs (410,800 acre-ft per year); 15-year base period (1952-67), 590 cfs.

EXTREMES.--Current year: Maximum discharge, 2,030 cfs May 8 (gage height, 5.22 ft); maximum gage height, 5.24 ft July 14; minimum discharge, 6 cfs Nov. 14, 15 (gage height, 1.58 ft).
Period of record: Maximum discharge, 2,770 cfs Apr. 26, 1946 (gage height, 6.15 ft); minimum daily, 1 cfs Nov. 16 to Dec. 7, 1938.

REMARKS.--Records good. Flow regulated by Henrys Lake (see sta 13-0390) and Island Park Reservoir (see sta 13-0420). About 14,000 acres irrigated by diversions above station, a considerable portion of which consists of partly subirrigated meadows.

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

REVISIONS.--WSP 1217: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	511	383	452	526	526	653	632	1,260	1,330	1,190	1,570	1,300
2	511	63	481	526	526	653	632	1,260	1,280	1,160	1,590	1,300
3	447	63	506	526	526	653	632	1,260	1,240	1,120	1,620	1,170
4	511	65	511	526	526	658	632	1,260	1,190	1,060	1,620	1,030
5	516	65	506	526	526	658	632	1,380	1,150	1,040	1,600	1,020
6	511	65	511	526	526	658	632	1,530	1,130	1,030	1,600	1,020
7	511	68	506	526	526	658	669	1,770	1,090	1,020	1,590	1,020
8	511	51	511	526	526	658	696	2,010	1,050	1,010	1,600	1,020
9	531	27	511	526	526	658	696	1,970	1,040	992	1,600	1,020
10	542	29	516	526	526	526	696	1,880	1,020	968	1,600	1,020
11	542	29	511	526	573	457	696	1,790	1,020	1,150	1,590	1,010
12	542	31	516	526	632	481	696	1,600	1,010	1,400	1,570	1,010
13	547	31	516	526	642	481	696	1,130	968	1,580	1,320	1,010
14	547	15	521	526	642	516	701	696	938	1,670	1,330	1,010
15	547	30	521	526	642	542	701	696	896	1,680	1,320	1,000
16	547	42	526	526	642	542	701	696	854	1,660	1,320	932
17	547	40	526	526	648	600	701	696	842	1,600	1,310	806
18	558	40	526	526	648	632	723	842	842	1,530	1,310	806
19	579	40	526	526	648	632	750	938	842	1,630	1,310	806
20	579	40	531	526	648	632	750	1,040	848	1,680	1,150	806
21	579	156	531	526	648	632	800	1,160	914	1,690	1,020	794
22	285	438	531	526	648	632	842	1,080	926	1,700	1,020	778
23	326	443	531	526	648	632	902	974	920	1,700	1,030	679
24	579	452	526	526	648	632	1,030	872	1,000	1,720	1,030	674
25	573	447	526	526	648	632	1,210	992	1,110	1,840	1,030	674
26	573	452	526	526	648	632	1,260	1,170	1,150	1,840	1,030	669
27	573	447	526	526	653	632	1,260	1,330	1,150	1,840	1,040	669
28	573	447	531	526	653	632	1,260	1,400	1,190	1,750	1,150	664
29	573	452	531	526	-----	632	1,260	1,430	1,200	1,620	1,310	664
30	573	452	531	526	-----	632	1,260	1,420	1,210	1,600	1,310	658
31	573	-----	526	526	-----	632	-----	1,380	-----	1,610	1,310	-----
TOTAL	16,417	5,403	16,047	16,306	16,819	18,900	24,748	38,912	31,350	45,080	41,810	27,039
MEAN	530	180	518	526	601	610	825	1,255	1,045	1,454	1,349	901
MAX	579	452	531	526	653	658	1,260	2,010	1,330	1,840	1,620	1,300
MIN	285	15	452	526	526	457	632	696	842	968	1,020	658
AC-FT	32,560	10,720	31,830	32,340	33,360	37,490	49,090	77,180	62,180	89,410	82,930	53,630
CAL YR 1968: TOTAL	226,291			MEAN 618		MAX 1,630	MIN 15	AC-FT 448,800				
WTR YR 1969: TOTAL	298,831			MEAN 819		MAX 2,010	MIN 15	AC-FT 592,700				

HENRYS FORK BASIN

85

13-0470. Diversions from Falls River above gaging station near Squirrel, Idaho

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	123	59	208	107
2								0	138	59	204	105
3								0	141	66	211	105
4								0	143	74	202	104
5								0	177	84	204	68
6								0	183	94	194	68
7								0	183	135	196	67
8								0	182	143	196	67
9								0	182	157	197	67
10								0	176	184	197	79
11								0	169	197	195	80
12								0	158	239	184	80
13								0	148	233	164	81
14								29	140	231	159	81
15								47	140	220	167	80
16								47	143	219	163	98
17								47	158	213	165	98
18								47	164	218	167	98
19								47	173	213	167	98
20								50	185	208	167	101
21								54	166	209	166	74
22								46	120	218	165	73
23								53	101	221	163	73
24								61	102	217	166	71
25								68	106	221	165	71
26								76	85	226	147	71
27								79	61	225	120	71
28								82	60	224	118	71
29								86	58	219	114	72
30								108	59	219	110	72
31		-----			-----		-----	123	-----	215	110	-----
TOTAL								1,150	4,124	5,660	5,251	2,451
MEAN								37.1	137	183	169	81.7
MAX								123	185	239	211	107
MIN								0	58	59	110	67
AC-FT								2,280	8,180	11,230	10,420	4,860

THE PERIOD: AC-FT 36,960

HENRYS FORK BASIN

13-0475. Falls River near Squirrel, Idaho

LOCATION.--Lat 44°04'07", long 111°14'25", in NW¼NE¼ sec.34, T.9 N., R.44 E., Fremont County, on right bank 0.2 mile upstream from road bridge, 0.5 mile downstream from headgates of Marysville Canal, 4 miles northeast of Squirrel, 10.8 miles upstream from Conant Creek, and at mile 19.8.

DRAINAGE AREA.--351 sq mi. Mean altitude, 7,520 ft.

PERIOD OF RECORD.--August 1902 to June 1909 (gage heights only prior to October 1904), May 1918 to current year. 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. Prior to Jan. 1, 1904, nonrecording gages at site 3 miles upstream at different datum, Jan. 1, 1904 to Nov. 6, 1937, nonrecording gage at site 200 ft upstream at different datum, and Nov. 7, 1937, to Oct. 7, 1948, nonrecording gage at site 100 ft downstream at datum 0.29 ft lower.

AVERAGE DISCHARGE.--55 years (1904-8, 1918-69), 755 cfs (547,000 acre-ft per year); 15-year base period (1952-67), 762 cfs.

EXTREMES.--Current year: Maximum discharge, 2,850 cfs May 19, 28 (gage height, 3.39 ft); minimum, 217 cfs Dec. 31 (gage height, 0.71 ft).
Period of record: Maximum discharge observed, 6,440 cfs June 27, 1927; minimum observed, 72 cfs Feb. 9, 1930.

REMARKS.--Records excellent. Flow since October 1939 partly regulated by Grassy Lake (see sta 13-0465). About 16,000 acres irrigated from two diversions above station.

REVISIONS (WATER YEARS).--WSP 1217: Drainage area. WSP 1517: 1908. WSP 1347: 1905.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 9-12; stage-discharge relation affected by ice Nov. 25, Jan. 1-5, 10-12, Feb. 2-7)

Oct. 1 to Mar. 9				Mar. 10 to June 12			
June 13 to Sept. 30							
1.0	305	2.0	1,030	1.1	355	2.0	1,130
1.2	408	3.0	2,210	1.3	500	2.8	2,070
1.5	610			1.6	750	3.5	3,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	451	477	519	470	451	397	445	1,180	2,000	1,290	701	568
2	458	477	519	450	445	392	477	1,280	1,890	1,210	693	568
3	445	491	505	420	441	397	540	1,630	1,860	1,170	693	561
4	445	618	512	425	440	392	524	1,810	1,890	1,120	701	575
5	439	561	512	430	440	392	564	1,970	2,000	1,060	693	552
6	433	526	498	458	440	397	648	2,240	2,140	976	685	547
7	445	505	484	445	440	392	631	2,380	2,290	1,040	670	540
8	439	458	512	439	439	387	572	2,400	2,210	1,070	678	533
9	439	582	498	427	433	382	548	2,280	1,990	895	670	533
10	439	575	491	410	433	388	597	2,290	1,870	823	670	519
11	433	561	495	415	427	395	665	2,360	1,870	782	685	519
12	427	568	491	425	427	402	708	2,400	1,650	741	723	519
13	458	568	451	451	425	382	813	2,430	1,630	765	701	519
14	632	561	477	484	420	382	804	2,620	1,460	782	678	519
15	655	540	484	470	420	388	858	2,430	1,320	859	670	505
16	561	533	491	451	415	382	831	2,100	1,220	799	662	491
17	512	568	484	439	414	382	912	2,080	1,150	757	655	491
18	505	568	477	439	414	388	1,020	2,240	1,130	741	655	491
19	505	561	464	458	408	388	960	2,690	1,190	725	648	533
20	491	561	464	470	403	375	1,010	2,660	1,260	717	625	603
21	491	554	445	498	408	375	1,200	2,470	1,530	717	582	603
22	484	554	451	533	420	375	1,510	2,340	1,400	709	575	589
23	477	547	464	470	414	382	1,870	2,330	1,400	685	575	554
24	477	540	484	445	414	375	2,000	2,380	1,340	685	575	561
25	470	530	491	451	414	368	1,580	2,470	1,740	693	575	540
26	477	498	477	470	403	368	1,380	2,590	2,030	685	582	533
27	464	533	470	458	397	375	1,280	2,750	1,830	678	556	519
28	464	526	451	458	397	375	1,460	2,780	1,690	685	589	519
29	464	484	451	458	-----	375	1,590	2,540	1,490	693	582	512
30	484	533	433	451	-----	388	1,380	2,400	1,400	685	568	519
31	505	-----	315	451	-----	430	-----	2,260	-----	693	568	-----
TOTAL	14,869	16,198	14,760	14,019	11,842	11,966	29,377	70,780	49,870	25,940	15,933	16,135
MEAN	480	540	476	452	423	386	979	2,283	1,662	837	643	538
MAX	655	618	519	533	451	430	2,000	2,780	2,290	1,250	723	603
MIN	427	477	315	410	397	368	445	1,180	1,130	678	568	491
AC-FT	29,490	32,130	29,280	27,810	23,490	23,730	58,270	140,400	98,920	51,450	39,540	32,000
CAL YR 1968: TOTAL	292,670			MEAN 800		MAX 3,970		MIN 315		AC-FT 580,500		
WTR YR 1969: TOTAL	295,689			MEAN 810		MAX 2,780		MIN 315		AC-FT 586,500		

HENRYS FORK BASIN

87

13-0490. 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. Records available for part of each irrigation season from 1919 to current year. Discharge of canals computed from daily or twice-weekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								89	668	417	616	501
2								185	679	421	530	489
3								198	691	430	586	496
4								223	713	432	585	508
5								241	751	491	590	518
6								281	783	511	607	510
7								281	798	543	598	504
8								299	790	573	589	488
9								334	785	628	589	481
10								350	770	625	594	483
11								365	713	641	582	481
12								405	685	643	570	482
13								439	650	652	561	487
14								437	614	655	543	482
15								435	589	692	537	483
16								432	559	672	535	446
17								430	581	588	540	441
18								437	619	598	538	447
19								451	637	602	533	447
20								428	662	630	530	447
21								440	620	638	517	442
22								468	524	625	507	409
23								526	509	635	504	368
24								511	483	623	504	359
25								498	452	622	503	362
26								552	414	609	518	352
27								603	389	612	498	343
28								632	386	604	496	339
29								656	384	617	504	339
30								657	393	616	490	331
31								641		616	494	
TOTAL								12,924	18,291	18,261	16,888	13,265
MEAN								417	610	589	545	442
MAX								657	798	692	616	518
MIN								89	384	417	490	331
AC-FT								25,630	36,280	36,220	33,500	26,310

THE PERIOD: AC-FT 157,900

HENRYS FORK BASIN

13-0495. Falls River near Chester, Idaho

LOCATION.--Lat 44°01'06", long 111°33'57", in NW¼SE¼ sec.13, T.8 N., R.41 E., Fremont County, on right bank 0.2 mile upstream from highway bridge, at mile 0.8, and 1.5 miles north of Chester.

DRAINAGE AREA.--520 sq mi, approximately. Mean altitude, 6,970 ft.

PERIOD OF RECORD.--April 1920 to current year (irrigation seasons only prior to 1962). Prior to October 1959, published as Fall River near Chester.

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

AVERAGE DISCHARGE.--8 years (1961-69), 674 cfs (488,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,780 cfs May 19 (gage height, 4.43 ft); maximum gage height, 6.90 ft Mar. 11; minimum discharge, 92 cfs July 30, 31, Aug. 25; minimum gage height, 1.44 ft July 30, 31.
Period of record: Maximum discharge recorded, 6,380 cfs June 27, 1927 (gage height, 6.60 ft); maximum gage height recorded, 7.93 ft Jan. 18, 1966 (backwater from ice); minimum discharge recorded, 7 cfs June 27, 1961 (gage height, 0.74 ft).

REMARKS.--Records excellent except those for winter period, which are fair. Flow since October 1939 partly regulated by Grassy Lake (see sta 13-0465). About 42,000 acres of land irrigated by diversions above station. Station is below all diversions from Falls River.

REVISIONS.--WSP 1217: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 15-19, 24, 25, Nov. 30 to Mar. 16)

1.4	81	3.0	950
1.7	155	3.5	1,500
2.0	265	4.0	2,130
2.5	540	4.5	2,850

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	390	550	400	475	415	578	1,270	1,600	1,200	120	135
2	315	380	530	450	470	415	639	1,240	1,400	1,110	158	133
3	315	395	525	480	470	415	711	1,580	1,310	1,030	123	130
4	330	533	525	455	470	415	671	1,750	1,300	941	117	130
5	330	512	525	455	465	415	711	1,940	1,420	843	112	135
6	325	440	525	465	465	415	784	2,200	1,510	735	110	135
7	335	416	520	475	460	410	759	2,370	1,690	767	107	138
8	350	400	515	465	460	410	671	2,420	1,680	792	110	138
9	345	477	520	455	455	405	639	2,260	1,510	540	107	133
10	345	491	520	445	455	405	679	2,250	1,400	410	110	133
11	340	526	515	455	450	410	767	2,290	1,480	320	112	130
12	330	512	510	465	450	410	800	2,300	1,230	241	165	127
13	360	526	505	480	445	415	923	2,300	1,200	241	199	127
14	505	505	480	495	445	420	923	2,490	1,030	265	175	133
15	647	505	500	510	440	430	990	2,320	900	330	165	141
16	533	505	505	495	440	440	960	2,030	809	301	158	135
17	464	510	510	480	440	452	1,060	1,900	719	288	158	133
18	434	515	505	460	435	464	1,230	2,030	663	257	152	127
19	428	525	490	460	430	464	1,140	2,540	711	221	149	158
20	416	533	480	495	425	458	1,140	2,580	784	199	144	270
21	410	548	480	515	425	446	1,370	2,330	1,180	178	107	274
22	400	548	470	535	430	446	1,750	2,130	1,120	165	58	340
23	395	555	485	550	435	470	2,100	1,990	1,100	149	98	283
24	390	555	495	500	435	452	2,440	2,080	1,090	149	98	288
25	390	550	505	470	430	446	1,880	2,180	1,490	152	58	292
26	385	533	510	480	425	452	1,610	2,250	1,940	144	107	278
27	375	562	500	490	420	458	1,400	2,320	1,790	141	120	274
28	370	555	485	485	415	464	1,610	2,340	1,670	133	133	270
29	365	519	470	485	-----	464	1,790	2,100	1,460	120	138	265
30	380	550	470	480	-----	491	1,560	1,920	1,330	104	138	283
31	416	-----	450	475	-----	540	-----	1,870	-----	98	138	-----
TOTAL	12,023	15,071	15,575	14,805	12,460	13,612	34,285	65,570	38,516	12,564	4,044	5,668
MEAN	388	502	502	478	445	439	1,143	2,115	1,284	405	130	189
MAX	647	562	550	550	475	540	2,440	2,580	1,940	1,200	155	340
MIN	310	380	450	400	415	405	578	1,240	663	98	98	127
AC-FT	23,870	29,890	30,890	29,370	24,710	27,000	68,000	130,100	76,400	24,920	8,020	11,240
CAL YR 1968: TOTAL	258,284			MEAN 706		MAX 4,040		MIN 46		AC-FT 512,300		
WTR YR 1969: TOTAL	244,203			MEAN 669		MAX 2,580		MIN 98		AC-FT 484,400		

13-0500. Diversions from Henrys Fork between Ashton and St. Anthony gaging stations, Idaho

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								662	1,470	706	1,360	965
2								676	1,480	850	1,380	938
3								702	1,530	942	1,420	909
4								797	1,600	977	1,410	894
5								892	1,670	1,040	1,420	861
6								1,050	1,720	1,180	1,380	874
7								1,060	1,760	1,160	1,230	832
8								1,130	1,590	1,180	1,310	817
9								1,220	1,440	1,180	1,310	816
10								1,270	1,270	1,200	1,310	857
11								1,300	1,220	1,280	1,280	867
12								1,420	1,130	1,520	1,100	842
13								1,470	1,090	1,610	1,090	851
14								1,480	1,040	1,600	1,080	841
15								1,490	1,050	1,590	1,070	843
16								1,480	1,110	1,420	1,080	844
17								1,520	1,280	1,360	1,080	783
18								1,540	1,260	1,340	1,060	748
19								1,560	1,290	1,340	1,040	735
20								1,530	1,310	1,370	1,020	708
21								1,520	942	1,400	872	744
22								1,520	835	1,460	842	701
23								1,540	727	1,360	797	653
24								1,550	714	1,480	792	591
25								1,530	704	1,460	814	579
26								1,570	543	1,460	834	551
27								1,560	508	1,460	861	557
28								1,580	502	1,410	856	554
29								1,560	496	1,380	935	550
30								1,530	496	1,330	972	553
31		-----			-----		-----	1,500	-----	1,360	964	-----
TOTAL								41,209	33,777	40,405	33,969	22,858
MEAN								1,329	1,126	1,303	1,096	762
MAX								1,580	1,760	1,610	1,420	965
MIN								662	496	706	792	550
AC-FT								81,740	67,000	80,140	67,380	45,340

THE PERIOD: AC-FT 341,600

HENRYS FORK BASIN

13-0505. 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., Fremont County, on right bank 0.5 mile upstream from bridge on main street of St. Anthony, 6.4 miles downstream from Falls River, and at mile 33.6.

DRAINAGE AREA.--1,770 sq mi, approximately. Mean altitude, 6,670 ft.

PERIOD OF RECORD.--March 1919 to current year (irrigation seasons only prior to 1962).

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

AVERAGE DISCHARGE.--8 years (1961-69), 1,692 cfs (1,226,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 6,790 cfs Apr. 24 (gage height, 5.97 ft); minimum, 450 cfs Oct. 23 (gage height, 2.82 ft).

Period of record: Maximum discharge recorded, 9,030 cfs May 8, 1925 (gage height, 6.78 ft, present datum); maximum gage height recorded, 7.62 ft Dec. 14, 1967; minimum discharge recorded, 118 cfs Oct. 21, 1965 (gage height, 2.27 ft).

REMARKS.--Records good. Diversions above station for irrigation. Flow regulated by powerplant 17 miles above station and by Henrys Lake (see sta 13-0390), Island Park Reservoir (see sta 13-0420), and Grassy Lake (see sta 13-0465).

REVISIONS (WATER YEARS).--WSP 1217: Drainage area. WSP 1317: 1923(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 22-28, Dec. 30 to Jan. 15, Feb. 2-12)

3.4	1,010
3.8	1,550
4.5	2,760
5.0	3,870
6.0	6,790

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,210	1,600	1,670	1,800	1,670	1,840	2,380	3,920	2,740	2,970	1,390	1,430
2	1,210	1,360	1,640	1,950	1,750	1,840	1,690	3,820	2,820	2,650	1,290	1,460
3	1,200	1,130	1,660	1,750	1,900	1,800	2,000	4,380	2,530	2,420	1,340	1,520
4	1,120	1,400	1,720	1,750	1,700	1,810	2,000	4,620	2,340	2,180	1,370	1,300
5	1,170	1,370	1,760	1,750	1,700	1,810	2,220	5,010	2,290	2,000	1,340	1,230
6	1,140	1,250	1,730	1,750	1,900	1,840	2,360	5,520	2,200	1,760	1,330	1,250
7	1,140	1,220	1,660	1,730	1,850	1,810	2,460	5,740	2,530	1,730	1,460	1,270
8	1,170	1,170	1,730	1,650	1,800	1,750	2,340	6,310	2,570	1,830	1,420	1,270
9	1,170	1,370	1,730	1,700	1,820	1,800	2,120	5,710	2,530	1,550	1,370	1,250
10	1,170	1,260	1,720	1,680	1,820	1,730	2,080	5,520	2,530	1,290	1,390	1,250
11	1,180	1,300	1,720	1,680	1,820	1,660	2,380	5,330	2,740	1,140	1,460	1,250
12	1,170	1,270	1,720	1,770	1,900	1,620	2,360	5,210	2,480	1,110	1,640	1,250
13	1,210	1,300	1,580	1,830	2,030	1,610	2,680	4,730	2,440	1,320	1,620	1,250
14	1,480	1,260	1,750	1,900	1,960	1,600	2,700	4,410	2,250	1,400	1,420	1,260
15	1,620	1,220	1,840	1,850	1,930	1,700	2,760	3,870	2,080	1,700	1,400	1,260
16	1,500	1,200	1,780	1,800	1,960	1,670	2,700	3,400	1,890	1,660	1,390	1,230
17	1,400	1,180	1,800	1,800	1,940	1,670	2,800	3,100	1,610	1,640	1,390	1,210
18	1,360	1,230	1,730	1,800	1,880	1,800	3,310	3,250	1,440	1,550	1,360	1,110
19	1,360	1,230	1,760	1,880	1,890	1,780	3,290	4,020	1,430	1,400	1,420	1,210
20	1,370	1,200	1,640	1,930	1,890	1,760	3,310	4,120	1,610	1,560	1,460	1,370
21	1,400	1,180	1,610	2,030	1,910	1,760	3,680	3,820	2,480	1,520	1,320	1,360
22	1,480	1,340	1,780	2,170	1,940	1,800	4,430	3,680	2,530	1,440	1,270	1,480
23	1,020	1,600	1,900	2,000	1,940	1,840	5,090	3,200	2,610	1,460	1,260	1,420
24	1,430	1,610	1,950	1,800	1,930	1,780	6,090	3,050	2,650	1,400	1,290	1,340
25	1,540	1,640	1,900	1,960	1,960	1,760	4,980	3,100	3,450	1,500	1,260	1,330
26	1,540	1,540	1,850	2,000	1,890	1,800	4,650	3,380	4,330	1,600	1,250	1,330
27	1,500	1,610	1,780	1,810	1,880	1,800	4,170	3,560	3,970	1,560	1,230	1,330
28	1,500	1,610	1,720	1,910	1,840	1,810	4,410	3,680	3,850	1,610	1,210	1,320
29	1,520	1,540	1,640	1,890	-----	1,810	4,810	3,540	3,470	1,490	1,340	1,300
30	1,550	1,640	1,600	1,760	-----	1,840	4,520	3,380	3,270	1,420	1,440	1,320
31	1,620	-----	1,500	1,580	-----	2,150	-----	3,360	-----	1,400	1,430	-----
TOTAL	41,450	40,830	53,570	56,660	52,400	55,050	96,770	129,740	77,660	51,260	42,560	39,160
MEAN	1,337	1,361	1,728	1,828	1,871	1,776	3,226	4,185	2,589	1,654	1,373	1,305
MAX	1,620	1,640	1,950	2,170	2,030	2,150	6,090	6,310	4,330	2,970	1,640	1,520
MIN	1,020	1,130	1,500	1,580	1,670	1,600	1,690	3,050	1,430	1,110	1,210	1,110
AC-FT	82,210	80,990	106,300	112,400	103,900	109,200	191,900	257,300	154,000	101,700	84,420	77,670
CAL YR 1968: TOTAL	638,856			MEAN 1,746		MAX 6,280	MIN 880	AC-FT 1,267,000				
WTR YR 1969: TOTAL	737,110			MEAN 2,019		MAX 6,310	MIN 1,020	AC-FT 1,462,000				

HENRYS FORK BASIN

91

13-0522. Teton River above South Leigh Creek, near Driggs, Idaho

LOCATION.--Lat 43°46'54", long 111°12'30", in NW¼NE¼ sec.12 (revised), T.5 N., R.44 E., Teton County, on right bank 75 ft upstream from county road bridge, 3.5 miles southwest of Teton, 6.5 miles northwest of Driggs, and at mile 56.3.

DRAINAGE AREA.--335 sq mi, approximately.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,952.9 ft above mean sea level.

AVERAGE DISCHARGE.--8 years, 373 cfs (270,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,170 cfs Apr. 6 (gage height, 3.15 ft); maximum gage height, 3.82 ft Jan. 21 (backwater from ice); minimum discharge, 90 cfs Dec. 29 (gage height, 0.73 ft); minimum gage height, 0.65 ft Mar. 12.

Period of record: Maximum discharge, 2,050 cfs June 18, 1964 (gage height, 4.36 ft); maximum gage height, 6.37 ft Feb. 1, 1963; minimum daily discharge, 75 cfs Jan. 11, 1963.

REMARKS.--Records good except those for winter period, which are fair.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 14, Mar. 13-20, June 25 to July 1, Sept. 16-27;
stage-discharge relation affected by ice Nov. 16-18, Dec. 7, 8, 14, 22-27, Dec. 29 to Jan. 15,
Jan. 20-29, Feb. 1-5, 8, 9, 15, 18-20, Mar. 11, 12)

Oct. 1 to Mar. 20		Mar. 21 to June 30		July 1 to Sept. 30	
0.9	120	1.1	187	2.5	785
1.3	209	1.5	334	3.0	1,080
1.6	312	2.0	548	2.0	440
2.1	529			2.5	660

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	390	236	336	280	300	231	522	351	469	610	436	326
2	386	332	320	320	295	215	643	347	447	601	432	326
3	381	348	304	340	290	218	702	342	443	635	424	316
4	381	403	312	345	280	218	689	347	456	650	416	302
5	377	390	285	345	280	224	780	351	486	630	420	299
6	377	356	243	349	293	218	758	376	522	583	408	295
7	377	344	280	335	278	218	513	389	575	552	400	292
8	377	332	290	290	270	215	426	401	598	601	356	289
9	377	344	301	200	270	215	486	405	620	570	396	292
10	377	344	289	220	264	215	552	393	629	556	352	299
11	373	369	274	240	278	218	539	401	716	534	396	306
12	373	398	271	270	274	215	478	418	625	520	444	302
13	373	381	264	320	267	221	464	418	656	516	448	299
14	433	356	270	400	260	221	431	418	620	524	432	295
15	496	348	289	390	254	228	410	414	611	552	412	289
16	442	330	278	373	237	206	380	389	598	552	400	286
17	398	310	278	324	231	206	376	351	588	574	392	286
18	386	320	285	282	230	215	376	351	570	534	389	282
19	381	320	278	344	230	218	372	397	566	516	389	289
20	373	324	280	360	225	221	359	414	588	504	365	330
21	365	328	218	400	218	224	363	393	698	500	373	340
22	360	340	260	420	209	227	380	389	746	492	366	323
23	360	365	280	340	209	231	405	393	666	484	362	309
24	352	344	285	340	209	227	435	397	741	460	358	299
25	352	336	280	350	212	231	431	418	796	484	344	295
26	348	232	260	350	221	234	405	456	882	480	344	286
27	340	320	200	340	215	238	389	495	812	476	344	286
28	340	304	123	320	221	238	372	513	807	472	337	286
29	340	324	160	310	-----	245	363	495	689	472	337	279
30	344	344	220	293	-----	275	359	491	643	464	337	282
31	340	-----	250	301	-----	368	-----	491	-----	452	330	-----
TOTAL	11,669	10,322	8,263	10,091	7,020	7,094	14,158	12,604	18,863	16,610	12,039	8,985
MEAN	376	344	267	326	251	229	472	407	629	536	388	300
MAX	456	403	336	420	300	368	780	513	882	650	448	340
MIN	340	304	123	200	209	206	359	342	443	452	330	279
AC-FT	23,150	20,470	16,390	20,020	13,920	14,070	28,080	25,000	37,410	32,950	23,880	17,820
CAL YR 1968: TOTAL	150,524		MEAN 411		MAX 1,260		MIN 123		AC-FT 298,600			
WTR YR 1969: TOTAL	137,718		MEAN 377		MAX 882		MIN 123		AC-FT 273,200			

13-0550. Teton River near St. Anthony, Idaho

LOCATION.--Lat 43°55'38", long 111°36'55", in SW¼SW¼ sec.15, T.7 N., R.41 E., Fremont County, on right bank 0.5 mile upstream from railroad bridge, 4 miles southeast of St. Anthony, and at mile 22.

DRAINAGE AREA.--890 sq mi, approximately.

PERIOD OF RECORD.--January 1890 to September 1893, April 1903 to June 1909, April 1920 to current year (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. Apr. 5, 1890, to Sept. 30, 1893, nonrecording gage at site 1 mile downstream at different datum. Apr. 23, 1903, to June 30, 1909, nonrecording gage at site 0.8 mile upstream at different datum. Apr. 19, 1920, to May 1, 1921, nonrecording gage and May 2, 1921, to Nov. 5, 1933, water-stage recorder, at site 400 ft downstream at different datum.

AVERAGE DISCHARGE.--36 years (1933-69), 770 cfs (557,900 acre-ft per year); 15-year base period (1952-67), 768 cfs.

EXTREMES.--Current year: Maximum discharge, 2,440 cfs May 13 (gage height, 4.94 ft); maximum gage height, 5.26 ft Feb. 1; minimum discharge, 240 cfs Dec. 30 (gage height, 1.87 ft).

Period of record: Maximum discharge, 11,000 cfs Feb. 12, 1962 (gage height, 9.36 ft), on basis of

contracted-opening measurement of peak flow; minimum, 214 cfs Dec. 15, 1955 (gage height, 1.62 ft).

REMARKS.--Records excellent except those for winter period, which are good. About 40,000 acres of land irrigated from diversions above station. Water is diverted at times (since 1939) during irrigation season from Henrys Fork through Cross Cut Canal to Teton River 0.8 mile upstream from station (33,770 acre-ft diverted into river during 1969 irrigation season). Records of chemical analyses and water temperatures for water year 1969 published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1217. Drainage area. WSP 1347: 1903-6, 1908-9.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 25 to July 1; stage-discharge relation affected
by ice Dec. 8, 9, 11-28, Dec. 31 to Jan. 13, Jan. 18, Jan. 21 to Feb. 2, Mar. 13)

1.9	254	3.0	880
2.2	360	4.0	1,650
2.6	590	5.0	2,540

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	665	577	570	440	455	408	1,390	948	1,550	1,420	978	624
2	658	570	532	480	450	414	1,590	925	1,410	1,430	955	624
3	638	564	519	500	450	408	1,910	978	1,340	1,440	940	610
4	631	590	494	510	450	408	1,830	1,120	1,420	1,430	925	604
5	624	631	506	515	440	403	1,750	1,320	1,600	1,370	910	597
6	624	631	469	520	440	403	1,700	1,570	1,690	1,260	865	597
7	617	610	436	520	450	403	1,590	1,850	1,850	1,280	775	604
8	617	570	460	500	450	398	1,310	2,100	1,900	1,350	782	604
9	617	519	480	470	450	398	1,100	2,120	1,750	1,220	812	617
10	617	597	482	400	450	394	1,080	2,180	1,680	1,140	865	687
11	617	610	460	440	469	394	1,140	2,320	1,890	1,090	820	701
12	617	617	440	480	446	394	1,200	2,370	1,680	1,150	872	701
13	617	644	400	500	446	385	1,240	2,400	1,570	1,230	962	701
14	631	617	440	551	441	389	1,220	2,380	1,490	1,220	910	701
15	658	584	480	644	436	389	1,200	2,270	1,380	1,250	865	694
16	680	558	490	597	436	384	1,200	1,980	1,320	1,270	850	658
17	694	551	470	532	436	379	1,140	1,780	1,260	1,220	850	624
18	665	532	440	510	424	374	1,120	1,850	1,210	1,160	850	624
19	638	577	420	494	414	389	1,110	2,240	1,180	1,090	835	638
20	624	590	400	558	398	403	1,100	2,330	1,180	1,060	782	680
21	610	590	360	600	436	408	1,090	2,120	1,430	1,050	644	745
22	604	577	400	620	430	408	1,100	1,920	1,550	1,050	624	738
23	597	584	430	580	424	414	1,200	1,890	1,420	1,040	604	597
24	590	604	450	480	419	414	1,570	1,930	1,470	1,040	590	570
25	584	604	460	480	419	398	1,470	1,980	1,680	1,040	550	570
26	577	564	460	490	414	398	1,200	2,120	1,840	1,040	597	551
27	570	513	440	500	408	408	1,030	2,290	1,860	1,030	590	538
28	564	544	400	480	408	424	948	2,300	1,800	1,030	584	532
29	570	513	330	470	-----	469	940	2,050	1,670	1,000	631	525
30	570	513	279	460	-----	680	955	1,840	1,490	1,000	638	519
31	570	-----	360	460	-----	1,000	-----	1,760	-----	985	624	-----
TOTAL	19,155	17,345	13,757	15,781	12,189	13,338	38,423	59,231	46,560	36,385	24,059	18,775
MEAN	618	578	444	509	435	430	1,281	1,911	1,552	1,174	776	626
MAX	694	644	570	644	469	1,000	1,910	2,400	1,900	1,440	978	745
MIN	564	513	279	400	398	374	940	925	1,180	985	584	519
AC-FT	37,990	34,400	27,290	31,300	24,180	26,460	76,210	117,500	92,350	72,170	47,720	37,240

CAL YR 1968 : TOTAL 327,593

MEAN 895

MAX 3,430

MIN 279

AC-FT 649,800

WTR YR 1969 : TOTAL 314,998

MEAN 863

MAX 2,400

MIN 279

AC-FT 624,800

PEAK DISCHARGE (BASE, 1,800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1967				1968				1969			
5-25	1500	5.55	3,020	6-14	0100	6.35	3,560	4- 3	0400	4.41	1,960
5-30	1200	5.58	3,010	6-20	1500	6.13	3,280	5-13	2100	4.93	2,440
6-23	0600	6.62	4,150	7-11	1200	4.22	1,840	6- 8	1100	4.41	1,960
6-29	2000	6.18	3,710					6-27	0100	4.40	1,900

13-0555. Diversions from Teton River between St. Anthony gaging station and mouth, Idaho

Between St. Anthony gaging station and mouth, 20 canals divert water from Teton River for irrigation of 30,000 acres of land. Records available for part of each irrigation season from 1919 to current year. Discharge of canals computed from daily or twice-weekly staff-gage readings, or interpolated, and combined to show total diverted flow. Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								30	1,250	680	1,040	654
2								30	1,210	719	1,030	696
3								118	1,220	817	1,040	668
4								208	1,320	855	992	666
5								271	1,400	922	973	665
6								335	1,520	1,150	984	636
7								438	1,640	1,200	835	623
8								620	1,590	1,220	819	628
9								661	1,560	1,230	870	609
10								706	1,420	1,210	882	677
11								968	1,250	1,180	910	712
12								1,170	1,170	1,120	906	722
13								1,250	1,130	1,280	793	725
14								1,420	1,090	1,290	740	729
15								1,290	1,050	1,300	721	663
16								1,130	1,070	1,340	721	641
17								1,090	1,100	1,340	726	609
18								1,080	1,190	1,240	709	588
19								1,210	1,100	1,160	706	606
20								1,300	1,150	1,130	679	544
21								1,280	1,210	1,130	634	574
22								1,210	1,140	1,140	618	460
23								1,270	995	1,110	584	452
24								1,300	934	1,140	542	446
25								1,400	759	1,140	626	438
26								1,530	707	1,150	628	433
27								1,530	737	1,140	678	428
28								1,530	683	1,150	680	424
29					-----			1,360	638	1,130	740	427
30					-----			1,360	614	1,080	725	442
31		-----			-----		-----	1,340	-----	1,070	741	-----
TOTAL								30,435	33,897	34,763	24,272	17,585
MEAN								982	1,130	1,121	783	586
MAX								1,530	1,640	1,340	1,040	729
MIN								30	614	680	542	424
AC-FT								60,370	67,230	68,950	48,140	34,880

THE PERIOD: AC-FT 279,600

HENRYS FORK BASIN

13-0560. Diversions from Henrys Fork between St. Anthony and Rexburg gaging stations, Idaho

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								683	1,220	645	809	662
2								737	1,230	730	816	666
3								790	1,200	774	824	659
4								869	1,170	761	842	665
5								949	1,170	848	857	576
6								1,050	1,170	825	815	579
7								1,070	1,140	808	845	594
8								1,100	1,100	819	837	587
9								1,130	1,020	809	794	587
10								1,150	926	858	800	533
11								1,170	871	886	762	504
12								1,190	841	930	660	508
13								1,220	841	999	647	502
14								1,210	830	985	591	501
15								1,200	831	957	700	510
16								1,200	831	830	711	490
17								1,190	817	822	716	456
18								1,230	810	815	708	427
19								1,270	807	830	684	429
20								1,270	773	877	665	406
21								1,270	660	871	662	398
22								1,290	647	854	650	399
23								1,300	667	888	652	396
24								1,280	579	907	653	392
25								1,260	527	898	657	395
26								1,240	542	886	697	392
27								1,230	444	863	707	392
28								1,220	473	861	674	399
29					-----			1,230	472	864	679	399
30					-----			1,240	475	844	677	397
31		-----			-----		-----	1,230	-----	868	668	-----
TOTAL								35,458	25,084	26,412	22,459	14,800
MEAN								1,144	836	852	724	493
MAX								1,300	1,230	999	857	666
MIN								683	444	645	591	392
AC-FT								70,330	49,750	52,390	44,550	29,360

THE PERIOD: AC-FT 246,400

13-0565. Henrys Fork near Rexburg, Idaho

LOCATION.--Lat 43°49'34", long 111°54'15", in NW¼NE¼ sec.30, T.6 N., R.39 E., Madison County, on right bank 200 ft downstream from highway bridge, 6 miles west of Rexburg, and at mile 9.3.

DRAINAGE AREA.--2,920 sq mi, approximately.

PERIOD OF RECORD.--April 1909 to current year. 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. Apr. 13, 1909, to Sept. 28, 1912, nonrecording gage at datum 0.67 ft higher. Sept. 29, 1912, to Apr. 4, 1913, nonrecording gage at present datum.

AVERAGE DISCHARGE.--60 years, 1,911 cfs (1,385,000 acre-ft per year); 15-year base period (1952-67), 1,848 cfs.

EXTREMES.--Current year: Maximum discharge, 6,760 cfs Apr. 25 (gage height, 8.93 ft); minimum, 758 cfs July 13 (gage height, 3.29 ft).

Period of record: Maximum discharge, 11,000 cfs June 20, 1964 (gage height, 10.18 ft); minimum, 183 cfs Mar. 24-28, 1934 (gage height, 1.45 ft).

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by operation of power-plant near Ashton, and by Henrys Lake (see sta 13-0390), Island Park Reservoir (see sta 13-0420), and Grassy Lake (see sta 13-0465). 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. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

REVISIONS.--WSP 1217: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 22-27, Apr. 15-23, June 26 to Aug. 4; stage-discharge relation affected by ice Dec. 25-29, Jan. 2-23, Feb. 5-27)

3.1	780	8.0	4,820
4.0	1,340	110.0	10,300
6.0	2,780		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,740	2,230	2,010	1,630	2,150	2,130	3,270	4,880	3,090	4,540	1,430	1,410
2	1,710	2,200	1,990	1,800	2,250	2,160	3,430	4,440	2,630	3,970	1,370	1,420
3	1,670	1,930	2,080	2,200	2,280	2,130	3,050	4,260	2,430	3,380	1,350	1,450
4	1,600	1,990	2,000	2,150	2,300	2,120	3,470	4,560	2,060	3,020	1,340	1,440
5	1,550	2,160	2,040	2,200	2,080	2,120	3,410	4,830	1,850	2,640	1,320	1,300
6	1,480	2,040	2,040	2,220	2,250	2,160	3,560	5,110	1,890	2,150	1,310	1,280
7	1,450	1,910	1,990	2,200	2,210	2,160	3,740	5,460	1,940	1,820	1,340	1,260
8	1,500	1,820	2,040	2,100	2,190	2,120	3,470	5,840	2,480	1,840	1,330	1,260
9	1,560	1,800	2,010	2,070	2,220	2,060	3,010	6,210	2,710	1,670	1,290	1,250
10	1,610	1,840	2,050	2,100	2,220	2,040	2,900	5,870	2,780	1,310	1,310	1,250
11	1,690	1,830	2,020	2,050	2,250	2,030	3,040	5,590	3,180	1,030	1,380	1,280
12	1,710	1,820	2,070	2,150	2,300	1,920	3,210	5,340	3,490	835	1,560	1,320
13	1,730	1,820	1,990	2,250	2,370	1,940	3,210	5,160	3,280	818	1,890	1,340
14	1,910	1,820	1,870	2,300	2,330	1,920	3,420	4,840	3,210	1,000	1,810	1,360
15	2,220	1,790	2,100	2,380	2,300	1,930	3,420	4,560	2,970	1,220	1,660	1,390
16	2,320	1,630	2,140	2,400	2,280	1,980	3,390	4,130	2,680	1,470	1,680	1,450
17	2,200	1,590	2,130	2,200	2,260	1,960	3,300	3,480	2,340	1,480	1,710	1,500
18	2,110	1,630	2,120	2,180	2,250	1,990	3,420	3,080	1,920	1,440	1,710	1,410
19	2,090	1,720	2,080	2,170	2,230	2,390	3,810	3,320	1,690	1,310	1,670	1,410
20	2,090	1,670	2,070	2,350	2,210	2,270	3,800	4,030	1,670	1,260	1,700	1,650
21	2,070	1,660	1,900	2,400	2,250	2,280	3,840	4,180	2,290	1,360	1,670	1,790
22	2,150	1,620	1,830	2,500	2,270	2,310	4,200	3,900	3,150	1,330	1,430	1,940
23	2,240	1,850	2,010	2,570	2,260	2,360	4,800	3,460	3,380	1,280	1,390	1,940
24	1,870	1,950	2,240	2,300	2,250	2,320	5,470	2,990	3,470	1,240	1,320	1,850
25	2,190	1,960	2,250	2,100	2,250	2,240	6,560	2,840	3,860	1,290	1,310	1,820
26	2,190	1,950	2,200	2,300	2,220	2,200	6,140	2,900	4,690	1,440	1,250	1,820
27	2,170	1,880	2,100	2,320	2,180	2,320	5,490	3,180	5,350	1,470	1,240	1,780
28	2,150	1,960	2,000	2,170	2,160	2,360	4,980	3,410	5,490	1,480	1,240	1,740
29	2,170	1,900	1,850	2,250	-----	2,400	4,950	3,530	5,290	1,480	1,220	1,710
30	2,180	1,900	1,350	2,270	-----	2,590	5,100	3,360	4,960	1,380	1,430	1,710
31	2,280	-----	1,500	2,100	-----	2,780	-----	3,300	-----	1,370	1,430	-----
TOTAL	59,600	55,870	62,070	68,380	62,770	67,690	118,860	132,040	92,220	53,323	45,110	45,530
MEAN	1,923	1,862	2,002	2,206	2,242	2,184	3,962	4,259	3,074	1,720	1,455	1,518
MAX	2,320	2,230	2,250	2,570	2,370	2,780	6,560	6,210	5,490	4,540	1,850	1,940
MIN	1,450	1,590	1,350	1,630	2,080	1,920	2,900	2,840	1,670	818	1,220	1,250
AC-FT	118,200	110,800	123,100	135,600	124,500	134,300	235,800	261,900	182,900	105,800	89,470	90,310
CAL YR 1968	TOTAL 797,940			MEAN 2,180		MAX 8,460		MIN 868		AC-FT 1,583,000		
WTR YR 1969	TOTAL 863,463			MEAN 2,366		MAX 6,560		MIN 818		AC-FT 1,713,000		

HENRYS FORK BASIN

Smaller reservoirs in Henrys Fork Basin

13-0390. HENRYS LAKE.--Lat 44°35'51", long 111°21'10", in SW¼NW¼ sec.26, T.15 N., R.43 E., Fremont County, at dam on Henrys Fork, 5.2 miles south of former Lake, Idaho, Post Office. Drainage area, 99.0 sq mi, including 6.2 sq mi of Dry Creek basin. Period of record, June 1923 to current year (fragmentary). Nonrecording gage. Datum of gage is 6,457.16 ft above mean sea level (levels by Bureau of Reclamation). Current year: Maximum contents observed, 92,100 acre-ft June 26 (gage height, 16.95 ft); minimum observed, 72,300 acre-ft Sept. 5 (gage height, 13.88 ft). Period of record: Maximum contents observed, 92,100 acre-ft June 26, 1969; minimum observed, 140 acre-ft Nov. 8, 1934 (gage height, 0.03 ft).

Reservoir is formed on natural lake by concrete dam supported by downstream earth-fill dam; storage began Sept. 21, 1922; dam completed July 1923. Capacity, 90,420 acre-ft between gage heights 0.0 (low-water level of Henrys Lake prior to construction of dam) and 16.7 ft (top of 4.7-ft flashboards on spillway). Floodwaters of Dry Creek are diverted into Henrys Lake at times (some diverted during water year 1969). Water used for irrigation near St. Anthony. Gage read occasionally. Records given herein represent usable contents, except an allowance of 3,000 acre-ft is usually made for loss and dead storage for maximum contents. Capacity table furnished by North Fork Reservoir Co.

13-0465. GRASSY LAKE.--Lat 44°07'45", long 110°49'05", in NE¼ sec.18, T.48 N., R.116 W., Teton County, in gate-house at dam on Grassy Creek, 0.4 mile (revised) upstream from mouth and 25.4 miles (revised) northwest of Moran, Wyo. Drainage area, 10.4 sq mi, including basin of Cascade Creek, from which water is diverted into Grassy Lake. Period of record, October 1939 to current year. Mercury pressure gage. Datum of gage is mean sea level (levels by Bureau of Reclamation). Current year: Maximum contents observed, 15,200 acre-ft June 6 (elevation, 7,210.10 ft); minimum contents observed, 6,840 acre-ft Sept. 4, 10 (elevation, 7,179.25 ft). Period of record: Maximum contents observed, 15,446 acre-ft July 2, 1943 (elevation, 7,210.85 ft); no contents Oct. 2-5, 1940.

Reservoir is formed by earth-fill, rock-faced dam; storage began Oct. 18, 1939. Capacity, 15,200 acre-ft between elevations 7,135.0 ft (sill of trashrack) and 7,210.0 ft (crest of spillway). Water is used for irrigation of lands in Fremont-Madison irrigation district, Idaho. Gage read about twice monthly. Records given herein represent usable contents. Gage-height record and capacity table furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	GAUGE HEIGHT (FEET)	CONTENTS (ACRE- FEET)	CHANGE IN CONTENTS (ACRE-FEET)	ELEVATION (FEET)	CONTENTS (ACRE- FEET)	CHANGE IN CONTENTS (ACRE-FEET)
	HENRYS LAKE			GRASSY LAKE		
SEPT. 30.....	-	a77,800	-	-	a9,160	-
OCT. 31.....	-	a78,200	+400	7,189.15	9,240	+80
NOV. 30.....	-	a79,500	+1,300	7,189.80	9,410	+170
DEC. 31.....	-	a81,700	+2,200	7,190.65	9,630	+220
CALENDAR YEAR 1968.....	-	-	+2,200	-	-	-350
JAN. 31.....	-	a85,300	+3,600	-	a9,890	+260
FEB. 28.....	-	a86,500	+1,200	-	a10,000	+110
MAR. 31.....	-	a83,300	-3,200	-	a10,100	+100
APR. 30.....	-	a80,600	-2,700	7,193.55	10,400	+300
MAY 31.....	-	a83,800	+3,200	-	a14,400	+4,000
JUNE 30.....	-	a91,300	+7,500	-	a15,100	+700
JULY 31.....	-	a84,700	-6,600	7,198.80	11,800	-3,300
AUG. 31.....	-	a74,200	-10,500	-	a7,180	-4,620
SEPT. 30.....	-	a72,600	-1,600	-	a6,950	-230
WATER YEAR 1967-68.....			-5,200			-2,210

a No gage-height record.

WILLOW CREEK BASIN

97

13-0573. Grays Lake Diversion to Blackfoot River basin, near Wayan, Idaho

LOCATION (revised).--Lat 43°00'21", long 111°29'35", in NE¼NE¼ sec.11, T.5 S., R.42 E., Caribou County, on left bank, 0.5 mile downstream from control headgates, 3 miles upstream from Meadow Creek, and 6.7 miles west of Wayan.

PERIOD OF RECORD.--1927-43, 1945, 1947, 1949-50 (irrigation season only), June 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,369.34 ft above mean sea level.

EXTREMES.--Period of record: Maximum daily discharge, 374 cfs May 14, 1968; no flow at times each year.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.20	.50	.30	.70	.90	1.1	316	301	61	.20	.20
2	.20	.20	.50	.30	.70	.90	1.1	358	294	89	.20	.20
3	.20	.20	.50	.30	.70	.90	1.1	362	288	101	.20	.20
4	.20	.20	.50	.30	.70	.90	1.2	347	280	95	.20	.20
5	1.2	.20	.50	.30	.70	.90	1.2	332	216	46	.20	.20
6	4.6	.20	.50	.30	.70	.90	1.3	337	161	.20	.20	.20
7	1.4	21	.50	.30	.70	.90	9.8	337	118	30	.10	.20
8	.30	35	.50	.30	.80	.90	9.4	334	83	51	.10	.20
9	.30	14	.50	.30	.80	.90	2.0	353	104	65	.20	.20
10	.30	.70	.50	.30	.80	.90	2.3	343	118	73	.20	.20
11	.30	.60	.50	.30	.80	.90	2.8	345	118	74	.20	.20
12	.30	.60	.50	.30	.80	.90	3.3	345	118	32	.20	.20
13	.30	.60	.50	.30	.80	.90	2.8	362	118	.20	.20	.20
14	.30	.60	.50	.40	.80	.90	3.6	374	136	.20	.20	.20
15	.30	.60	.50	.40	.80	1.0	2.6	370	155	.20	.20	.20
16	.30	.60	.50	.40	.80	1.0	3.0	370	154	.20	.20	.20
17	.30	.60	.50	.40	.80	1.0	2.6	366	150	.20	.20	.20
18	.30	.60	.40	.40	.80	1.0	2.6	366	149	.20	.20	.20
19	.30	.60	.40	.40	.80	1.1	2.4	366	144	.20	.20	.20
20	.30	.60	.40	.40	.80	1.1	2.3	362	143	.20	.20	.20
21	.30	.60	.40	.50	.90	1.1	2.1	358	142	.20	.20	.20
22	.60	.60	.40	.50	.90	1.1	1.9	358	140	.20	.20	.20
23	1.6	.60	.40	.50	.90	1.0	33	358	133	.20	.20	.20
24	.60	.60	.40	.50	.90	1.1	83	356	133	.20	.20	.20
25	1.3	.50	.40	.50	.90	1.1	105	353	136	.20	.20	.20
26	7.5	.50	.40	.60	.90	1.1	106	347	133	.20	.20	.20
27	7.2	.50	.40	.60	.90	1.1	130	341	127	.20	.20	.20
28	7.2	.50	.40	.60	.90	1.1	170	334	120	.20	.20	.20
29	2.3	.50	.40	.60	-----	1.0	237	326	116	.20	.20	.20
30	.20	.50	.40	.60	-----	1.1	298	315	86	.20	.20	.20
31	.20	-----	.40	.60	-----	1.1	-----	305	-----	.20	.20	-----
TOTAL	41.00	83.30	14.10	12.80	22.50	30.70	1,224.5	10,796	4,614	721.00	6.00	6.00
MEAN	1.32	2.78	.45	.41	.80	.99	40.8	348	154	23.3	.19	.20
MAX	7.5	35	.50	.60	.90	1.1	298	374	301	101	.20	.20
MIN	.20	.20	.40	.30	.70	.90	1.1	305	83	.20	.10	.20
AC-FT	81	165	28	25	45	61	2,430	21,410	9,150	1,430	12	12
CAL YR 1968: TOTAL	13,504.40		MEAN 36.9		MAX 353		MIN .20		AC-FT 26,790			
WTR YR 1969: TOTAL	17,571.90		MEAN 48.1		MAX 374		MIN .10		AC-FT 34,850			

WILLOW CREEK BASIN

13-0574. Grays Lake near Wayan, Idaho

LOCATION.--Lat 43°59'53", long 111°26'33", in NE¼SW¼ sec.8, T.5 S., R.43 E., Caribou County, at Beavertail Point, 3.5 miles west of Wayan.

DRAINAGE AREA.--137 sq mi.

RECORDS AVAILABLE.--June 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,380 ft above mean sea level.

EXTREMES.--Current year: Maximum elevation, 6,388.01 ft Apr. 25-28; minimum elevation, 6,385.25 ft Sept. 29, 30.
Period of record: Maximum elevation, 6,388.01 ft Apr. 25-28, 1969; water below elevation 6,384.5 ft for long periods each year prior to 1969.

REMARKS.--Since 1924 lake level has been regulated by means of a dam across the outlet to Willow Creek, and by a cut, controlled by headgates, diverting water to the Blackfoot River Reservoir.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.50	5.52	5.80	6.05	6.48	6.62	6.88	7.97	6.83	6.06	5.62	5.45
2	5.48	5.54	5.81	6.05	6.48	6.62	6.91	7.95	6.77	6.04	5.78	5.44
3	5.48	5.56	5.82	6.05	6.48	6.62	6.96	7.93	6.71	5.96	5.77	5.41
4	5.48	5.60	5.82	6.05	6.48	6.62	7.02	7.90	6.64	5.90	5.76	5.40
5	5.48	5.63	5.83	6.06	6.49	6.62	7.12	7.88	6.59	5.88	5.75	5.38
6	5.45	5.64	5.83	6.07	6.50	6.62	7.25	7.86	6.52	5.96	5.73	5.37
7	5.45	5.61	5.83	6.07	6.50	6.62	7.35	7.94	6.52	6.00	5.71	5.35
8	5.45	5.51	5.83	6.06	6.50	6.63	7.34	7.77	6.52	6.01	5.70	5.33
9	5.45	5.47	5.84	6.06	6.50	6.63	7.38	7.74	6.50	5.99	5.68	5.32
10	5.45	5.46	5.84	6.07	6.51	6.64	7.44	7.72	6.48	5.93	5.66	5.37
11	5.42	5.49	5.86	6.08	6.53	6.66	7.52	7.69	6.50	5.90	5.68	5.37
12	5.39	5.50	5.86	6.09	6.52	6.66	7.59	7.67	6.53	5.84	5.75	5.35
13	5.46	5.56	5.86	6.10	6.52	6.66	7.64	7.63	6.55	5.87	5.75	5.35
14	5.53	5.59	5.87	6.11	6.51	6.66	7.72	7.61	6.53	5.91	5.74	5.34
15	5.52	5.61	5.88	6.12	6.51	6.66	7.80	7.59	6.51	5.93	5.72	5.32
16	5.59	5.63	5.91	6.13	6.52	6.67	7.87	7.57	6.48	5.95	5.70	5.31
17	5.59	5.63	5.91	6.13	6.53	6.64	7.91	7.55	6.44	5.96	5.69	5.30
18	5.58	5.64	5.92	6.13	6.57	6.68	7.97	7.52	6.38	5.96	5.67	5.29
19	5.59	5.65	5.92	6.16	6.57	6.69	7.98	7.50	6.34	5.96	5.65	5.29
20	5.56	5.67	5.93	6.31	6.57	6.70	7.98	7.47	6.29	5.96	5.64	5.31
21	5.58	5.67	5.93	6.44	6.57	6.71	7.99	7.44	6.29	5.96	5.62	5.32
22	5.57	5.69	5.94	6.45	6.57	6.72	7.99	7.41	6.24	5.94	5.60	5.30
23	5.59	5.70	5.97	6.45	6.57	6.73	7.98	7.35	6.20	5.93	5.59	5.30
24	5.59	5.73	5.98	6.45	6.59	6.73	7.99	7.28	6.20	5.92	5.57	5.29
25	5.59	5.74	6.00	6.44	6.61	6.73	8.01	7.23	6.17	5.91	5.56	5.28
26	5.59	5.74	6.01	6.43	6.61	6.74	8.01	7.16	6.16	5.90	5.54	5.27
27	5.57	5.74	6.02	6.44	6.61	6.76	8.01	7.12	6.12	5.89	5.53	5.26
28	5.52	5.75	6.04	6.44	6.62	6.76	8.00	7.08	6.10	5.88	5.50	5.26
29	5.46	5.76	6.04	6.45	-----	6.76	7.97	7.02	6.06	5.86	5.49	5.25
30	5.51	5.79	6.04	6.46	-----	6.79	7.96	6.90	6.05	5.86	5.48	5.26
31	5.52	-----	6.04	6.47	-----	6.84	-----	6.90	-----	5.84	5.47	-----
MEAN	5.52	5.63	5.91	6.22	6.54	6.68	7.65	7.53	6.41	5.93	5.65	5.33
MAX	5.59	5.79	6.04	6.47	6.62	6.84	8.01	7.97	6.83	6.06	5.82	5.45
MIN	5.39	5.46	5.80	6.05	6.48	6.62	6.88	6.90	6.05	5.84	5.47	5.25

CAL YR 1968: MEAN 5.63 MAX 7.32 MIN 5.25
WTR YR 1969: MEAN 6.25 MAX 8.01 MIN 5.25

13-0575. Grays Lake Outlet near Herman, Idaho

LOCATION.--Lat 43°08'05", long 111°29'40", in NW¼NE¼ sec.26, T.3 S., R.42 E., Bonneville County, on right bank 200 ft upstream from road crossing, 3.5 miles west of Herman, and 8 miles upstream from Brockman Creek.

DRAINAGE AREA.--137 sq mi.

PERIOD OF RECORD.--1916-25 (irrigation seasons only), June 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,377.53 ft above mean sea level. Prior to Oct. 18, 1917, non-recording gage, and Oct. 18, 1917, to Sept. 30, 1925, water-stage recorder at site 2 miles downstream at different datum.

EXTREMES.--Current year: Maximum discharge, 186 cfs May 7 (gage height, 6.59 ft), from rating curve extended above 94 cfs on basis of computation of peak flow through culvert; minimum, 0.2 cfs on many days.

Period of record: Maximum discharge observed, 1,350 cfs May 15, 1917 (gage height, 5.9 ft, site and datum then in use); no flow Apr. 25, 1917.

REVISIONS.--The maximum discharge for the water year 1967 has been revised to 35 cfs Apr. 18, 1967 (gage height, 2.84 ft), superseding figures published in WRD for Idaho, 1967.

REMARKS.--Some diversions for irrigation above lake. On May 25, 1924, Office of Indian Affairs completed a dam at outlet of lake and after that water has been diverted from south end of lake into Meadow Creek basin and thence into Blackfoot River Reservoir.

REVISIONS.--Revised figures of discharge, in cubic feet per second, for the water year 1967, superseding figures published in WRD for Idaho, 1967, are given below:

DAY	APR	MAY	JUN	JUL	DAY	APR	MAY	JUN	JUL	DAY	APR	MAY	JUN	JUL	DAY	APR	MAY	JUN	JUL
1	-	12	-	16	9	6.4	11	-	19	17	-	-	-	-	25	24	-	-	-
2	-	10	-	17	10	5.8	11	-	13	18	-	9.0	-	-	26	23	-	-	1.6
3	-	10	-	17	11	9.0	10	-	3.7	19	-	6.4	-	-	27	17	-	-	1.0
4	2.0	9.5	-	17	12	7.1	10	-	3.4	20	20	5.8	-	-	28	10	-	-	.9
5	3.9	9.5	-	17	13	8.4	10	-	3.3	21	20	5.4	-	-	29	10	-	7.3	-
6	4.3	9.7	-	18	14	12	10	-	9.6	22	22	4.8	-	-	30	10	-	16	-
7	4.7	12	-	18	15	15	10	-	-	23	22	4.3	-	-	31	---	-	---	-
8	6.0	13	-	18	16	22	-	-	-	24	23	-	-	-					

Month	Cfs-days	Maximum	Minimum	Mean	Acre-feet
April.....	361.0	24	0.1	12.0	716
May.....	238.4	13	2.7	7.69	473
June.....	63.1	16	.8	2.10	125
July.....	388.8	19	.4	12.5	771
WTR YR 1967.	1,098.4	24	0.1	3.01	2,180
CAL YR 1967.	1,112.8	24	0.1	3.05	2,210

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.50	.50	.30	.30	.40	1.9	72	29	.90	.50	.50
2	.50	.50	.50	.30	.30	.40	2.6	94	29	.90	.50	.50
3	.40	.50	.50	.30	.30	.40	4.8	93	28	.90	.50	.50
4	.40	.50	.50	.30	.30	.40	2.2	93	28	.90	.60	.50
5	.40	.50	.40	.30	.30	.40	2.1	95	22	.90	.70	.50
6	.40	.50	.50	.30	.30	.40	2.3	94	17	.90	.50	.50
7	.50	.50	.50	.40	.40	.30	2.3	128	11	.90	.50	.50
8	.50	.50	.50	.40	.40	.30	1.8	80	3.7	.90	.50	.50
9	.50	.70	.50	.30	.40	.30	1.7	2.6	3.4	.90	.50	.50
10	.50	.60	.40	.30	.40	.30	1.8	2.5	3.7	.80	.50	.70
11	.50	.60	.50	.30	.40	.30	1.9	2.5	3.6	.80	.60	.70
12	.40	.60	.50	.30	.40	.30	1.8	2.5	3.4	.70	.90	.60
13	.40	.50	.40	.30	.40	.30	1.8	2.5	3.4	.60	.70	.50
14	.60	.50	.40	.30	.40	.30	1.8	2.9	2.9	.70	.60	.50
15	.60	.50	.30	.30	.40	.40	1.8	2.8	2.9	.70	.50	.50
16	.50	.40	.30	.30	.40	.40	1.9	2.6	2.8	.60	.50	.50
17	.50	.50	.30	.30	.40	.40	1.9	2.5	2.5	.60	.50	.50
18	.50	.60	.30	.30	.40	.40	2.2	2.5	2.2	.50	.60	.40
19	.50	.70	.30	.40	.40	.50	2.2	3.4	2.1	.50	.60	.40
20	.50	.70	.30	.60	.40	.40	2.5	6.5	2.3	.40	.60	.50
21	.50	.60	.30	.70	.40	.30	2.5	33	2.1	.40	.60	.50
22	.50	.50	.30	.50	.40	.40	2.5	33	1.9	.40	.60	.50
23	.50	.50	.30	.30	.40	.50	2.9	33	1.7	.40	.60	.40
24	.50	.50	.30	.30	.40	.40	5.6	32	1.7	.40	.50	.30
25	.50	.60	.30	.30	.40	.30	4.1	32	1.9	.50	.50	.30
26	.40	.50	.30	.30	.40	.30	3.3	32	1.7	.50	.60	.30
27	.40	.50	.30	.30	.40	.30	25	31	1.5	.40	.60	.30
28	.50	.50	.30	.30	.40	.20	65	31	1.3	.50	.50	.30
29	.50	.70	.30	.30	-----	.20	65	30	1.1	.50	.50	.30
30	.40	.50	.30	.30	-----	.40	64	29	1.0	.60	.50	.30
31	.50	-----	.30	.30	-----	.60	-----	29	-----	.50	.50	-----
TOTAL	14.80	16.30	11.70	10.50	10.60	11.20	283.2	1,129.8	218.8	20.10	17.40	13.80
MEAN	.48	.54	.38	.34	.38	.36	9.44	36.4	7.29	.65	.56	.46
MAX	.60	.70	.50	.70	.40	.60	65	128	29	.90	.90	.70
MIN	.40	.40	.30	.30	.30	.20	1.7	2.5	1.0	.40	.50	.30
AC-FT	29	32	23	21	21	22	562	2,240	434	40	35	27

CAL YR 1968: TOTAL 181.00 MEAN .49 MAX 1.1 MIN .20 AC-FT 359
WTR YR 1969: TOTAL 1,758.20 MEAN 4.82 MAX 128 MIN .20 AC-FT 3,490

WILLOW CREEK BASIN

13-0580. Willow Creek near Ririe, Idaho

LOCATION.--Lat 43°35'35", long 111°46'30", in SE¼NW¼ sec.17, T.3 N., R.40 E., Bonneville County, on left bank, about 1 mile upstream from mouth of canyon, 1.5 miles upstream from Eagle Rock Canal, and 2.6 miles south of Ririe.

DRAINAGE AREA.--627 sq mi.

PERIOD OF RECORD.--April 1903 to September 1904, October 1916 to September 1925, May to August 1928, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Altitude of gage is 4,940 ft (from topographic map). Prior to September 1904, non-recording gage at site about 1.5 miles downstream at different datum. October 1916 to June 1921, nonrecording gage, and after June 1921 water-stage recorder at sites about 2 and 2.2 miles upstream at different datums.

AVERAGE DISCHARGE.--17 years (1903-4, 1916-25, 1962-69), 176 cfs (127,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,580 cfs Apr. 25 (gage height, 13.83 ft); minimum daily, 27 cfs Nov. 27.

Period of record: Maximum discharge observed, 4,200 cfs May 15, 1917 (gage height, 16.3 ft); minimum, 5.8 cfs Aug. 30, 1963, and Mar. 7, 1967.

Maximum discharge known, 5,080 cfs Feb. 11, 1962, from estimate based on field survey (gage height, 15.0 ft, from floodmarks); stream reported practically dry during summers of 1899 and 1934.

REMARKS.--Records excellent except those for winter period, which are fair. Diversions for irrigation of several thousand acres above station. Since the spring of 1924, water has sometimes been diverted from Grays Lake 40 miles upstream to Blackfoot River Reservoir (see sta 13-0573). Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 7-9, May 22 to July 1; stage-discharge
relation affected by ice Nov. 16 to Mar. 16)

Oct. 1 to Apr. 3		Apr. 4 to Sept. 30	
1.3	42	1.3	31
2.0	108	2.0	84
3.0	191	3.0	175
4.0	278	5.0	377
5.0	373	8.0	720
11.0	1,120	12.0	1,310
		13.0	1,760
		14.0	2,730

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	48	33	45	70	50	263	1,160	295	167	56	36
2	55	48	31	48	62	50	274	1,010	285	154	53	36
3	55	49	33	48	57	50	321	1,010	280	142	50	34
4	56	52	36	48	46	50	401	1,070	276	132	48	33
5	56	56	40	50	46	50	429	1,050	265	130	48	32
6	56	62	38	60	48	49	513	1,050	250	127	48	33
7	56	60	37	100	48	48	412	1,060	234	125	48	32
8	56	55	41	70	48	47	346	1,030	231	130	47	35
9	56	56	44	60	48	46	326	994	230	122	46	35
10	55	59	44	60	48	44	358	853	219	112	44	37
11	55	67	45	62	50	42	470	770	250	108	45	39
12	54	67	41	64	52	42	477	710	263	105	48	39
13	47	62	38	66	50	42	538	670	248	98	55	39
14	48	58	41	130	44	42	521	660	276	94	58	38
15	52	49	45	200	45	44	517	650	236	92	51	37
16	67	43	50	100	46	70	511	643	217	91	48	37
17	63	39	47	92	48	177	540	600	216	90	46	37
18	58	40	46	90	48	284	652	560	200	92	45	38
19	56	41	44	98	48	300	684	542	186	86	44	38
20	54	41	42	220	48	255	693	524	194	80	44	39
21	55	42	42	670	48	163	820	487	197	77	44	43
22	55	42	45	990	48	163	986	472	193	71	44	46
23	55	42	47	400	48	170	1,230	461	205	66	42	46
24	55	42	49	300	49	115	1,560	438	215	62	41	44
25	52	42	51	180	49	111	2,300	414	256	62	41	42
26	50	28	50	200	50	158	1,370	397	274	61	39	42
27	50	27	47	160	50	193	1,020	380	248	61	39	41
28	49	35	46	96	50	160	913	370	219	59	38	39
29	49	32	44	90	-----	194	968	345	198	58	37	37
30	48	33	42	80	-----	238	1,130	330	179	59	27	37
31	48	-----	40	76	-----	330	-----	310	-----	59	37	-----
TOTAL	1,676	1,417	1,319	4,953	1,392	3,777	21,543	21,020	7,035	2,972	1,411	1,141
MEAN	54.1	47.2	42.5	160	49.7	122	718	678	235	95.9	45.5	38.0
MAX	67	67	51	990	70	330	2,300	1,160	295	167	58	46
MIN	47	27	31	45	44	42	263	310	179	58	37	32
AC-FT	3,320	2,810	2,620	9,820	2,760	7,490	42,730	41,690	13,950	5,890	2,800	2,260
CAL YR 1968	TOTAL	42,579		MEAN	116	MAX	814	MIN	27	AC-FT	84,450	
WTR YR 1969	TOTAL	69,656		MEAN	191	MAX	2,300	MIN	27	AC-FT	138,200	

PEAK DISCHARGE (BASE, 850 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
1966	No peak	above base.		1-22-69	-	-	1,430
5-11-67	0500	11.28	1,160	4-25-69	0800	13.83	2,580
5-3-68	0200	9.77	906				

13-0595. Diversions from Snake River between Heise and Shelley gaging stations, Idaho

Between Heise and Shelley gaging stations, 47 canals divert water from Snake River for irrigation; of these, 36 divert above mouth of Henrys Fork. Records available during each irrigation season from 1919 to current year. Three of the canals are equipped with water-stage recorders, the others with nonrecording gages, which are read once daily. Discharge combined to show total diverted flow. Records include Riley ditch which diverts 1.5 miles above Heise gaging station. Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								1,160	10,300	5,630	10,200	8,040
2								1,430	10,200	6,210	9,980	7,900
3								1,560	10,500	7,080	9,730	8,360
4								1,970	10,700	7,630	9,690	8,620
5								2,660	11,000	8,090	9,770	8,640
6								3,740	10,900	8,670	9,740	8,480
7								4,380	10,900	9,340	9,630	5,200
8								4,950	10,800	9,690	8,900	5,230
9								5,850	10,700	10,100	8,700	5,040
10								6,660	10,600	10,500	8,570	7,480
11								7,270	9,500	10,800	9,150	7,700
12								7,850	8,760	10,700	9,000	7,800
13								7,950	7,780	10,400	8,650	7,450
14								8,430	7,380	10,700	8,590	7,090
15								8,500	7,180	10,900	8,240	7,130
16								8,500	7,030	11,000	8,240	7,040
17								8,420	7,450	11,100	7,990	6,910
18								8,400	7,590	11,100	8,110	6,970
19								8,390	7,970	11,000	8,030	6,540
20								8,520	8,060	10,800	8,060	6,370
21								8,700	8,260	10,800	8,160	5,820
22								8,720	7,670	10,900	8,280	6,380
23								8,980	7,570	9,660	8,100	6,310
24								9,270	6,470	9,450	7,950	5,900
25								8,880	6,010	8,760	8,010	5,950
26								9,710	5,600	9,730	8,130	5,670
27								10,100	5,100	9,380	8,240	5,540
28								10,200	5,120	10,200	8,140	5,500
29					-----			10,400	5,210	10,400	8,310	5,680
30					-----			10,300	5,120	10,600	8,170	5,740
31		-----			-----		-----	10,300	-----	10,300	8,110	-----
TOTAL								222,150	247,430	301,620	268,570	202,480
MEAN								7,166	8,248	9,730	8,664	6,749
MAX								10,400	11,000	11,100	10,200	8,640
MIN								1,160	5,100	5,630	7,950	5,040
AC-FT								440,600	490,800	598,300	532,700	401,600

THE PERIOD: AC-FT 2,464,000

SNAKE RIVER MAIN STEM

13-0600. Snake River near Shelley, Idaho

LOCATION.--Lat 43°24'47", long 112°08'02", in SE¼SW¼ (revised) sec.17, T.1 N., R.37 E., Bingham County, on right bank 0.3 mile southeast of Woodville, 2.5 miles north of Shelley, at mile 791.7.

DRAINAGE AREA.--9,790 sq mi, approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--March 1915 to current year (prior to October 1931, irrigation seasons only).

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

AVERAGE DISCHARGE.--38 years (1931-69), 5,244 cfs (3,799,000 acre-ft per year); 15-year base period (1952-67), 5,232 cfs.

EXTREMES.--Current year: Maximum discharge, 18,900 cfs Apr. 26 (gage height, 10.39 ft); minimum, 1,530 cfs Oct. 1 (gage height, 4.82 ft).

Period of record: 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.--Records excellent except those for winter periods, which are good.. Some regulation by Jackson Lake (see sta 13-0105), Palisades Reservoir (see sta 13-0324.5), Island Park Reservoir (see sta 13-0420), Henrys Lake (see sta 13-0390), and Grassy Lake (see sta 13-0465). Many diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1317: 1916.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 14 to May 7; stage-discharge relation affected by ice
Dec. 30 to Jan. 4, Jan. 8-12, 16-18, 24, 28-30, and Feb. 2-9)

5.1	1,930	8.0	9,680
5.5	2,540	9.0	13,200
6.0	3,540	10.0	17,000
7.0	6,370	11.0	20,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,960	3,280	4,740	3,800	4,880	4,680	10,100	16,700	8,980	10,100	4,740	4,080
2	2,020	3,340	4,820	4,300	5,000	4,790	10,900	16,200	8,810	9,540	5,000	3,590
3	2,020	3,360	4,850	4,800	4,900	4,710	11,500	15,700	8,150	9,310	5,250	2,820
4	2,010	3,220	5,150	5,300	5,000	5,120	11,900	15,600	7,590	8,320	5,280	2,910
5	2,030	3,390	5,190	5,790	5,300	6,670	12,300	15,500	6,830	7,290	5,000	3,320
6	2,030	3,540	5,280	5,830	5,400	6,440	12,600	14,900	6,210	6,150	4,760	3,590
7	2,050	3,520	5,190	5,730	5,500	5,250	13,000	13,700	5,730	5,060	4,850	3,870
8	2,140	3,520	5,000	5,500	5,600	5,060	13,100	12,500	6,150	4,570	5,060	4,110
9	2,470	3,540	4,970	5,200	5,200	4,970	12,600	12,200	6,860	4,680	5,060	3,990
10	2,700	3,540	5,220	4,800	4,940	4,580	12,000	11,500	7,000	4,010	5,250	3,890
11	2,780	3,520	5,220	4,900	5,250	4,710	12,100	10,400	8,510	4,080	5,150	3,610
12	2,990	3,450	5,220	5,100	5,000	4,880	12,600	9,750	9,240	4,110	5,090	3,320
13	3,130	3,470	5,090	5,600	5,090	4,910	13,700	9,310	9,820	4,630	5,570	3,660
14	3,450	3,630	4,850	5,950	5,190	4,910	14,900	9,270	9,790	4,680	5,730	3,630
15	3,750	3,700	5,060	6,180	5,220	4,820	15,100	9,610	9,080	4,710	5,470	3,660
16	3,820	3,750	4,970	6,000	5,220	4,790	15,000	10,200	8,350	4,970	5,150	3,630
17	3,870	3,660	5,150	5,600	4,880	4,550	15,100	10,500	7,820	5,220	5,410	3,430
18	3,750	3,540	5,120	5,400	5,350	5,090	15,200	10,100	6,830	5,150	5,310	3,390
19	3,630	3,630	5,220	5,600	5,630	5,350	15,300	10,100	5,990	5,150	4,940	3,410
20	3,410	3,720	5,120	5,380	5,350	6,310	15,500	10,700	5,310	5,350	4,520	3,820
21	3,340	3,630	4,550	6,110	4,970	7,620	15,600	12,300	5,350	5,510	4,440	4,390
22	3,390	3,750	3,990	6,960	4,940	8,220	15,900	13,100	6,470	5,350	4,340	4,550
23	3,410	3,770	4,660	6,930	4,850	8,380	16,400	12,500	7,330	5,440	4,260	4,600
24	3,340	4,040	4,790	6,400	4,550	8,350	17,300	11,500	7,430	5,600	4,340	4,340
25	3,130	4,210	5,630	5,920	4,660	8,280	18,200	10,800	8,250	5,860	4,260	4,040
26	3,320	4,260	6,180	5,510	4,940	8,250	18,600	10,500	9,080	6,050	4,140	3,700
27	3,280	4,340	6,110	5,540	4,740	8,320	18,100	9,820	10,000	5,470	4,080	3,390
28	3,240	4,390	5,410	5,600	4,660	8,420	17,400	9,710	11,200	4,490	3,840	3,030
29	3,240	4,550	4,160	5,000	-----	8,580	16,700	9,820	12,000	3,890	3,840	2,890
30	3,300	4,570	3,800	5,300	-----	8,680	16,700	9,510	11,300	4,260	3,840	2,680
31	3,360	-----	3,600	5,060	-----	9,010	-----	8,940	-----	4,630	4,110	-----
TOTAL	92,360	111,830	154,310	171,090	142,210	194,800	435,400	362,940	241,460	173,630	148,080	109,340
MEAN	2,979	3,728	4,978	5,519	5,079	6,284	14,510	11,710	8,049	5,601	4,777	3,645
MAX	3,870	4,570	6,180	6,960	5,630	9,010	18,600	16,700	12,000	10,100	5,730	4,600
MIN	1,960	3,220	3,600	3,800	4,550	4,550	10,100	8,940	5,310	3,890	3,840	2,680
AC-FT	183,200	221,800	306,100	339,400	282,100	386,400	863,600	719,900	478,900	344,400	293,700	216,900

CAL YR 1968: TOTAL 1,984,280 MEAN 5,422 MAX 21,300 MIN 1,500 AC-FT 3,936,000

WTR YR 1969: TOTAL 2,337,450 MEAN 6,404 MAX 18,600 MIN 1,960 AC-FT 4,636,000

BLACKFOOT RIVER BASIN

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13-0630. Blackfoot River above reservoir, near Henry, Idaho

LOCATION.--Lat 42°49'00", long 111°30'35", in SE¼NE¼ sec.14, T.7 S., R.42 E., Caribou County, on right bank 70 ft upstream from railroad bridge immediately upstream from the Monsanto Chemical Company "Haul Road", 5 miles upstream from Blackfoot Reservoir flow line, 6 miles south of Henry, and 11 miles north of Soda Springs.

DRAINAGE AREA.--350 sq mi, approximately.

PERIOD OF RECORD.--April 1914 to September 1925 (no winter records except water year 1915), August 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,260 ft (from topographic map). Mar. 25, 1914, to Sept. 30, 1914, nonrecording gage at site 3.3 miles downstream at different datum. Oct. 1, 1915, to Sept. 30, 1925, nonrecording gage at site 4 miles downstream at different datum.

EXTREMES.--Current year: Maximum discharge, 1,400 cfs Apr. 24 (gage height, 7.17 ft); minimum daily, 40 cfs Jan. 9

Period of record: Maximum discharge, 2,060 cfs May 16, 1917 (gage height, 6.85 ft, from floodmark), from rating curve extended above 1,000 cfs; minimum observed, 23 cfs Aug. 17, 1919.

REMARKS.--Records excellent except those for December to March, which are fair. Some diversions above station for irrigation of hay meadow.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 26, 28, 29, Dec. 13 to Apr. 5).

Oct. 1 to Apr. 5		Apr. 6 to Sept. 30	
2.0	46	2.0	53
2.6	100	2.5	94
		3.0	152
		4.0	320
		5.0	570
		6.0	900
		7.0	1,320

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	70	68	43	63	61	100	714	176	144	77	56
2	68	68	70	45	63	61	120	612	176	133	73	56
3	67	71	68	48	63	61	130	603	174	123	72	56
4	66	78	70	51	63	61	140	618	173	116	73	58
5	66	86	72	54	63	61	180	579	153	104	73	58
6	66	79	69	56	63	61	207	528	146	97	73	56
7	67	74	68	58	63	61	189	508	155	105	69	56
8	66	68	58	50	63	60	177	482	160	116	67	56
9	65	73	68	40	63	59	176	458	166	111	65	56
10	67	82	66	46	64	58	177	435	163	106	64	62
11	67	82	70	52	64	57	177	422	207	105	62	67
12	66	81	60	56	64	57	184	412	194	100	70	64
13	67	76	56	60	62	57	216	405	207	93	83	61
14	76	72	60	66	61	57	234	410	212	91	73	61
15	98	77	64	70	61	57	248	415	183	95	67	59
16	87	60	65	71	61	60	259	412	195	99	64	57
17	77	68	65	69	61	64	328	398	189	103	62	57
18	76	75	60	67	61	66	418	363	169	103	64	59
19	75	76	56	67	61	66	388	365	153	90	66	59
20	74	76	52	76	61	65	432	372	160	86	64	60
21	73	74	51	84	61	65	513	341	200	83	60	65
22	71	73	54	92	61	65	645	322	212	78	59	69
23	71	77	57	100	61	65	750	310	186	77	58	64
24	71	74	60	80	61	65	1,170	298	202	77	58	63
25	70	68	62	60	61	65	1,140	288	272	78	59	62
26	69	67	60	62	61	66	757	267	286	84	58	61
27	68	66	56	64	61	68	564	245	234	80	56	61
28	67	65	53	64	61	70	492	234	192	77	56	59
29	68	62	49	63	-----	74	594	220	169	80	56	59
30	68	54	45	63	-----	80	732	204	156	85	56	59
31	72	-----	42	63	-----	90	-----	177	-----	82	56	-----
TOTAL	2,197	2,172	1,874	1,940	1,736	1,983	11,837	12,417	5,620	3,001	2,013	1,796
MEAN	70.9	72.4	60.5	62.6	62.0	64.0	395	401	187	96.8	64.9	59.9
MAX	98	86	72	100	64	90	1,170	714	286	144	82	69
MIN	65	54	42	40	61	57	100	177	146	77	56	56
AC-FT	4,360	4,310	3,720	3,850	3,440	3,930	23,480	24,630	11,150	5,950	3,950	3,560
CAL YR 1968	TOTAL 50,928			MEAN 139		MAX 1,170		MIN 42		AC-FT 101,000		
WTR YR 1969	TOTAL 48,586			MEAN 133		MAX 1,170		MIN 40		AC-FT 96,370		

BLACKFOOT RIVER BASIN

13-0650. Blackfoot River Reservoir near Henry, Idaho

LOCATION.--Lat 43°00'20", long 111°43'00", in sec.12, T.5 S., R.40 E., Caribou County, near spillway at right end of dam, 12 miles northwest of Henry, and at mile 78.0.

DRAINAGE AREA.--581 sq mi.

PERIOD OF RECORD.--January 1912 to September 1925, January 1929 to current year (no winter records (1949-59). Monthend contents only for January 1929 to September 1960, published in WSP 1317, 1737. Prior to October 1950 and October 1960 to September 1961, published as Blackfoot-Marsh Reservoir near Henry.

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

EXTREMES.--Current year: Maximum contents observed during year, 334,800 acre-ft May 26 (elevation, 6,119.72 ft); minimum observed, 230,200 acre-ft Sept. 30 (elevation, 6,113.55 ft).

Period of record: 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 ft (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. Storage began in spring of 1910.

COOPERATION.--Capacity table, gage readings and daily contents furnished by Office of Indian Affairs.

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

6,113	221,200	6,118	304,700
6,114	237,500	6,120	339,800
6,116	270,600		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255,300	252,500		-	-	-	-	311,700	333,100	330,600	294,400	259,000
2	255,600	252,800		272,700	-	-	281,100	313,800	332,500	-	-	257,300
3	255,100	253,300		-	-	-	-	316,600	332,200	-	-	255,600
4	254,400	253,800		-	-	-	-	317,800	332,000	-	-	254,000
5	253,800	254,400		-	-	-	-	319,700	331,700	-	-	252,300
6	253,300	254,800		-	289,300	-	-	319,900	331,300	-	-	250,600
7	252,800	255,100		-	-	-	-	320,900	330,800	-	-	249,000
8	252,300	255,400		-	-	-	-	322,100	330,400	-	-	247,400
9	252,000	255,800		-	-	-	-	323,400	329,900	-	-	245,700
10	251,500	255,300		-	-	-	-	324,600	329,700	-	-	244,000
11	251,000	256,600		-	-	-	-	324,800	329,400	-	-	243,200
12	250,600	256,800		-	-	-	-	325,100	329,000	-	-	242,400
13	250,300	257,100		-	-	289,800	-	325,700	329,200	-	-	241,600
14	250,300	257,400		-	-	-	-	325,800	329,500	-	-	240,800
15	250,500	257,800		-	-	-	-	326,600	329,900	-	-	239,900
16	250,500	257,900		-	-	-	-	327,100	329,900	-	-	239,100
17	250,600	-		-	-	-	-	327,800	330,200	-	-	239,300
18	250,800	-		-	292,000	-	-	329,700	330,100	-	-	237,800
19	250,800	-		-	-	-	-	329,500	330,100	-	-	237,500
20	251,000	-		-	-	-	-	330,400	329,900	-	-	236,600
21	251,000	-		-	-	-	-	331,700	330,100	-	-	235,800
22	251,100	-		-	-	-	-	332,700	329,700	-	-	235,000
23	251,300	-		-	-	-	294,400	333,400	329,500	-	-	234,700
24	251,600	-		-	-	-	297,900	334,100	329,900	-	-	234,400
25	251,600	-		-	-	-	-	334,700	330,600	-	-	233,600
26	251,800	-		-	-	283,700	-	334,800	330,800	-	-	232,900
27	251,800	-		-	292,000	-	305,800	334,500	330,800	-	-	232,400
28	252,000	-		-	a291,800	-	-	334,300	331,000	-	-	231,900
29	252,000	-		-	-----	-	-	334,100	330,800	-	-	231,300
30	252,000	a262,400		-	-----	-	a310,200	333,600	330,800	-	-	230,200
31	252,100	-----	272,300	a283,600	-----	a281,800	-----	333,400	-----	295,300	260,600	-----
(†)	6114.89	-	6116.10	-	-	-	-	6119.64	6119.49	6117.45	6115.40	6113.55
(‡)	-4,800	+10,300	+9,900	+13,300	+6,200	-10,000	+28,400	+23,200	-2,600	-35,500	-34,700	-30,400
MAX	256,300	-	-	-	-	-	-	334,800	333,100	-	-	259,000
MIN	250,300	-	-	-	-	-	-	311,700	329,000	-	-	230,200

CAL YR 1968† +28,300

CAL YR 1969‡ -26,700

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

a No gage-height record.

LOCATION.--Lat 43°07'50", long 112°28'35", near E $\frac{1}{4}$ cor. sec.28, T.3 S., R.34 E., Bingham County, on left bank 11 ft upstream from highway bridge, at mile 2.3, and 8 miles southwest of Blackfoot.

PERIOD OF RECORD.--July 1913 to current year (prior to October 1931, summer months only). Monthly discharge only for some periods, published in WSP 1317.

AVERAGE DISCHARGE.--38 years (1931-69), 158 cfs (114,500 acre-ft per year); 15-year base period (1952-67), 153 cfs.

Maximum combined daily discharge during year (Blackfoot River and Blackfoot River bypass), 1,390 cfs
Apr. 27, _____

Period of record: Maximum discharge, 1,710 cfs Feb. 11, 1962 (gage height, 7.68 ft); no flow on many days.

Figures of daily discharge do not include discharge in bypass channel which diverts 5.5 miles upstream from station. Average discharge is for combined flow of river and bypass. Diversions to bypass channel started in April 1964. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

ADJUSTED FOR FLOW IN FLOOD BYPASS

MEAN	319	235	94.6	140	120	475	970	270	340	66.6	101	72.6
AC-FT	19,640	14,000	5,810	8,600	6,660	29,180	57,710	16,540	20,250	4,090	6,180	4,320
CAL YR 1968: TOTAL 60,086.2			MEAN 164		MAX 739		MIN 1.0		AC-FT 119,200			
WTR YR 1969: TOTAL 97,298.8			MEAN 266		MAX 1,391		MIN 6.0		AC-FT 193,000			

SNAKE RIVER MAIN STEM

13-0690. 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 current year. The two largest canals are equipped with recorders, the others with nonrecording gages which are read once daily. Discharge combined to show total diverted flow. Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								846	4,170	2,650	3,940	2,920
2								917	4,190	2,910	3,900	2,930
3								1,090	4,280	3,530	3,680	2,890
4								1,080	4,380	3,690	3,760	2,670
5								1,410	4,410	3,760	3,720	2,800
6								1,940	4,430	3,890	3,680	2,830
7								2,380	4,360	3,880	3,660	2,760
8								2,720	4,250	3,930	3,610	2,700
9								2,940	3,920	4,090	3,530	2,670
10								3,190	3,850	3,960	3,450	2,700
11								3,480	3,390	3,740	3,300	2,630
12								3,580	3,160	3,960	3,280	2,500
13								3,740	2,940	4,090	3,040	2,400
14								3,750	2,830	4,150	3,180	2,470
15								3,900	2,730	4,080	3,270	2,430
16								3,950	2,680	4,120	3,180	2,420
17								3,980	2,560	4,240	3,300	2,410
18								4,060	2,600	4,220	3,370	2,390
19								4,140	2,730	4,160	3,300	2,330
20								4,170	2,510	4,140	3,270	2,290
21								4,100	2,530	4,060	3,280	2,250
22								4,050	2,510	4,050	3,350	2,280
23								4,240	2,760	4,090	3,420	2,100
24								4,300	2,720	4,110	3,490	2,100
25								4,330	2,660	3,890	3,560	2,050
26								4,350	2,430	3,950	3,480	2,020
27								4,440	2,120	3,920	3,220	2,100
28								4,500	2,190	3,920	3,070	2,100
29					-----			4,510	2,220	3,840	3,010	2,170
30					-----			4,480	2,320	3,900	2,890	2,200
31		-----			-----		-----	4,280	-----	3,670	2,890	-----
TOTAL								104,843	94,830	120,590	105,080	73,510
MEAN								3,382	3,161	3,890	3,390	2,450
MAX								4,510	4,430	4,240	3,940	2,930
MIN								846	2,120	2,650	2,890	2,020
AC-FT								208,000	188,100	239,200	208,400	145,800

THE PERIOD: AC-FT 989,500

13-0695. Snake River near Blackfoot, Idaho

LOCATION.--Lat 43°07'31", long 112°31'06", in SE¼SE¼ sec.30, T.3 S., R.34 E., Bingham County, on right bank 0.3 mile downstream from highway bridge, 0.7 mile downstream from Blackfoot River, 10 miles southwest of Blackfoot, and at mile 750.8.

DRAINAGE AREA.--11,310 sq mi, approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--June 1910 to current year. 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 4,399.83 ft above mean sea level. Prior to July 6, 1913, nonrecording gages about 0.1 mile upstream at datum about 1.00 ft higher. July 6, 1913, to Aug. 19, 1962, water-stage recorder at site 0.1 mile upstream at datum 1.00 ft higher.

AVERAGE DISCHARGE.--43 years (1926-69), 4,029 cfs (2,919,000 acre-ft per year); 15-year base period (1952-67), 3,977 cfs.

EXTREMES.--Current year: Maximum discharge, 19,600 cfs Apr. 27 (gage height, 9.84 ft); minimum, 280 cfs Sept. 4 (gage height, 1.11 ft).

Period of record: Maximum discharge, 46,200 cfs June 18, 1918 (gage height, 14.80 ft, site and datum then in use); minimum, 111 cfs Nov. 10, 1934 (gage height, 0.80 ft, site and datum then in use).

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.--Records excellent. Flow regulated by Jackson Lake (see sta 13-0105), Palisades Reservoir (see sta 13-0324.5), Henrys Lake (see sta 13-0390), Grassy Lake (see sta 13-0465), Island Park Reservoir (see sta 13-0420), and Blackfoot River Reservoir (see sta 13-0650), having a combined capacity of 2,883,000 acre-ft. About 694,000 acres of land irrigated by diversions above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-22, Dec. 31 to Jan. 6, Apr. 2 to June 4, July 7 to Aug. 25, Sept. 3-5)

1.4	355	6.0	7,100
2.0	730	8.0	12,600
3.0	1,660	10.0	19,600
4.0	3,000		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,250	3,590	4,510	3,310	4,430	4,940	9,810	16,300	5,110	8,580	1,220	1,630
2	997	3,470	4,610	4,070	5,090	5,150	11,200	16,100	5,220	6,960	1,350	1,450
3	1,050	3,640	4,670	4,510	4,990	5,200	12,200	15,300	4,370	6,520	1,850	723
4	1,020	3,660	4,800	4,940	5,070	5,110	12,800	14,700	3,590	5,460	2,390	366
5	1,070	3,540	5,050	5,410	5,460	6,380	13,200	14,300	2,810	4,450	2,070	518
6	1,100	3,810	5,070	5,700	5,590	7,050	13,200	13,700	2,280	3,160	1,800	970
7	1,100	3,840	5,050	5,630	5,790	5,900	13,300	12,600	1,650	2,260	1,730	1,190
8	1,240	3,820	4,880	5,410	5,830	5,430	13,300	10,700	1,650	1,220	1,930	1,680
9	1,470	3,810	4,820	5,010	5,590	5,320	13,300	9,760	2,820	962	2,260	1,640
10	1,820	3,770	4,900	4,670	5,150	5,110	13,200	8,500	3,330	778	2,300	1,740
11	1,900	3,750	5,110	4,690	5,010	4,920	13,000	7,250	4,600	464	2,600	1,520
12	2,120	3,700	5,050	5,130	5,110	5,180	13,300	6,380	6,470	355	2,440	1,410
13	2,290	3,660	5,050	5,370	5,010	5,200	14,300	5,630	7,220	458	2,810	1,470
14	2,740	3,750	4,710	5,720	5,200	5,240	15,300	5,260	7,900	770	3,190	1,680
15	3,140	3,880	4,880	6,030	5,240	5,150	15,700	5,570	7,520	738	3,050	1,590
16	3,700	3,860	5,010	5,720	5,320	5,090	15,700	6,170	6,910	810	2,650	1,600
17	3,940	3,810	4,960	5,590	5,170	4,990	15,400	6,720	6,380	1,040	2,720	1,520
18	3,880	3,680	5,150	5,260	5,050	5,010	15,400	6,470	5,540	1,180	2,680	1,360
19	3,750	3,660	5,070	5,480	5,630	5,740	15,600	6,100	4,170	1,140	2,350	1,370
20	3,920	3,790	5,030	5,370	5,610	6,350	15,800	6,420	3,260	1,350	1,980	1,650
21	3,610	3,750	4,650	5,900	5,150	7,250	15,900	7,850	3,160	1,710	1,510	2,320
22	3,730	3,720	3,790	7,320	5,070	8,340	16,000	9,110	3,700	1,660	1,440	2,780
23	3,680	3,790	4,230	6,880	5,050	8,680	16,500	8,660	4,990	1,490	1,210	2,820
24	3,640	3,880	4,570	6,470	4,920	8,680	17,500	7,650	5,350	1,570	1,110	2,840
25	3,380	4,110	5,300	6,280	4,650	8,560	18,500	6,720	6,580	1,940	1,140	2,560
26	3,420	4,170	5,870	5,720	5,010	8,470	19,200	6,350	7,450	2,320	970	2,320
27	3,400	4,230	5,680	5,370	5,010	8,500	19,300	5,680	8,530	2,290	866	1,880
28	3,400	4,290	5,200	5,130	4,800	8,660	18,500	5,200	9,620	1,550	1,100	1,460
29	3,350	4,350	4,050	5,410	-----	8,760	17,400	5,350	10,700	778	1,180	1,110
30	3,380	4,430	3,430	4,710	-----	8,920	16,500	5,410	10,500	488	1,450	922
31	3,450	-----	3,500	5,370	-----	9,190	-----	5,050	-----	1,040	1,540	-----
TOTAL	81,937	115,210	148,650	167,580	145,000	202,470	450,310	266,960	163,380	65,491	58,886	48,089
MEAN	2,643	3,840	4,795	5,406	5,179	6,531	15,010	8,612	5,446	2,113	1,900	1,603
MAX	3,940	4,430	5,870	7,320	5,830	9,190	19,300	16,300	10,700	8,580	3,190	2,840
MIN	997	3,470	3,430	3,310	4,430	4,920	9,810	5,050	1,650	355	866	366
AC-FT	162,500	228,500	294,800	332,400	287,600	401,600	893,200	529,500	324,100	129,900	116,800	95,380
CAL YR 1968:	TOTAL 1,586,200			MEAN 4,334			MAX 19,800			MIN 246		
WTR YR 1969:	TOTAL 1,913,963			MEAN 5,244			MAX 19,300			MIN 355		
							AC-FT 3,146,000					
							AC-FT 3,796,000					

PORTNEUF RIVER BASIN

13-0720. Portneuf River near Pebble, Idaho

LOCATION.--Lat 42°47'12", long 111°58'47", in SE¼NW¼ sec.26, T.7 S., R.38 E., Caribou County, on right bank, 90 ft downstream from county bridge, 4.8 miles upstream from Pebble Creek, and 3.5 miles north of Pebble.

DRAINAGE AREA.--260 sq mi, approximately.

PERIOD OF RECORD.--October 1910 to July 1913, September 22, 1968, to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,301.27 ft above mean sea level. October 1910 to July 1913 nonrecording gage 0.5 mile downstream at different datum.

EXTREMES.--Current year: Maximum discharge, 596 cfs Apr. 2 (gage height, 4.30 ft); minimum daily discharge, 21 cfs Dec. 30.

Period of record: Maximum discharge observed, 624 cfs Jan. 31, 1911 (gage height, 6.00 ft, site and datum then in use).

REMARKS.--Records good. Flow regulated by Portneuf Reservoir (capacity, 23,695 acre-ft) and Chesterfield Reservoir on Twenty-Four Mile Creek (capacity, 685 acre-ft). Diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	32	39	23	61	39	383	292	71	112	128	106
2	37	31	37	24	56	38	469	290	88	108	128	106
3	35	34	35	23	54	39	498	288	110	100	130	104
4	35	38	37	23	52	39	368	292	114	98	130	104
5	35	39	37	26	50	39	326	294	116	98	134	100
6	35	38	35	31	50	39	310	294	114	100	132	96
7	35	38	35	32	50	39	228	298	112	102	128	96
8	32	37	37	32	49	38	178	298	116	100	128	92
9	30	41	35	32	50	38	158	302	122	94	126	92
10	32	41	35	31	50	37	156	298	128	116	126	92
11	35	42	37	31	50	34	144	296	118	148	128	88
12	37	42	37	32	52	34	130	296	118	142	130	82
13	37	41	34	34	50	34	138	292	120	138	132	82
14	41	41	32	54	49	32	166	300	106	134	118	82
15	42	39	35	56	49	32	168	290	100	104	120	82
16	42	41	35	58	47	31	180	280	106	130	120	84
17	39	41	37	54	45	31	186	266	104	142	116	88
18	38	39	35	52	44	32	206	254	100	140	116	88
19	38	41	37	58	45	37	226	252	98	142	116	82
20	37	44	37	162	45	37	218	244	98	144	110	59
21	34	44	35	298	42	35	234	218	98	148	98	58
22	34	45	34	387	42	38	276	212	96	146	98	58
23	31	45	35	162	41	34	308	212	92	138	98	58
24	31	45	35	116	44	35	330	202	112	138	100	42
25	32	42	35	92	44	37	356	190	118	138	104	35
26	31	42	37	84	41	37	346	182	122	134	102	37
27	31	44	35	82	39	39	306	164	118	134	104	37
28	31	42	34	80	38	49	298	156	116	134	108	35
29	32	39	28	74	-----	69	294	126	114	132	106	35
30	32	39	21	72	-----	136	290	112	110	130	104	37
31	32	-----	22	63	-----	242	-----	80	-----	128	104	-----
TOTAL	1,078	1,207	1,069	2,378	1,329	1,470	7,874	7,570	3,255	3,892	3,622	2,237
MEAN	34.8	40.2	34.5	76.7	47.5	47.4	262	244	109	126	117	74.6
MAX	42	45	39	387	61	242	498	302	128	148	134	106
MIN	30	31	21	23	38	31	130	80	71	94	98	35
AC-FT	2,140	2,390	2,120	4,720	2,640	2,920	15,620	15,010	6,460	7,720	7,180	4,440
CAL YR 1968: TOTAL				MEAN				MIN				AC-FT
WTR YR 1969: TOTAL	36,981			MEAN 101	MAX 498			MIN 21	AC-FT 73,350			

13-0730. Portneuf River at Topaz, Idaho

LOCATION.--Lat 42°37'30", long 112°05'20", in SE¼ sec.23, T.9 S., R.37 E., Bannock County, on right bank 200 ft upstream from Bob Smith Creek, 800 ft downstream from Topaz siding, 1.5 miles upstream from diversion dam of Portneuf-Marsh Valley Canal Co., 4 miles west of Lava Hot Springs, and at mile 47.30.

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

PERIOD OF RECORD.--January 1913 to September 1915, July 1919 to current year. 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, nonrecording gage at site 0.3 mile downstream at datum 3.0 ft lower. July 20, 1919, to June 22, 1954, nonrecording gage at site 0.3 mile downstream at datum 2.00 ft lower than present datum.

AVERAGE DISCHARGE.--52 years, 190 cfs (137,700 acre-ft per year); 15-year base period (1952-67), 169 cfs.

EXTREMES.--Current year: Maximum discharge, 1,110 cfs Jan. 22 (gage height, 5.56 ft); minimum, 93 cfs Dec. 30, 31 (gage height, 2.27 ft).

Period of record: Maximum discharge, 7,120 cfs Feb. 1, 1963 (gage height, 8.22 ft), result of highway fill failure 2 miles upstream; minimum, 64 cfs Sept. 23, 1966 (gage height, 2.27 ft).

REMARKS.--Records good. Flow regulated by Portneuf 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. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1347: 1920-22, 1924-25(M). WSP 1567: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 11 to Feb. 13, Apr. 8-24)

2.3	93	5.0	762
3.0	295	6.0	1,720
4.0	504		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	134	143	128	187	158	670	537	272	241	212	199
2	126	133	142	129	180	157	711	537	261	228	214	194
3	120	136	140	122	175	150	778	546	283	217	222	193
4	121	143	142	122	172	152	609	554	277	200	216	189
5	120	137	141	125	173	151	543	560	274	185	217	185
6	120	134	141	136	173	156	539	576	277	184	212	180
7	123	132	140	140	169	153	478	592	275	183	206	174
8	123	134	146	136	166	149	380	598	269	180	201	175
9	123	151	142	133	165	146	337	603	268	172	200	174
10	122	146	142	130	163	145	329	602	277	163	200	178
11	124	143	145	132	161	147	331	590	284	207	204	176
12	125	146	141	137	163	148	313	590	253	205	220	169
13	125	143	138	137	165	147	326	591	266	200	215	169
14	139	136	139	176	155	145	342	608	248	199	206	168
15	143	142	141	177	157	147	350	599	236	198	201	162
16	144	138	142	169	155	146	346	578	243	177	201	154
17	141	139	140	161	151	151	362	539	238	207	201	154
18	142	139	139	152	148	173	400	511	232	208	202	156
19	140	145	141	185	151	166	412	504	229	203	202	162
20	140	145	137	465	154	160	427	484	242	207	205	148
21	139	145	129	750	153	160	435	455	263	224	188	139
22	137	145	130	887	153	163	489	422	259	208	181	134
23	137	148	134	482	154	161	598	404	240	202	175	133
24	132	149	139	316	158	160	647	392	268	202	179	129
25	130	154	138	255	175	161	628	388	288	211	181	109
26	129	140	141	241	160	176	606	384	289	211	183	108
27	126	147	137	222	154	198	556	362	278	211	186	107
28	128	144	138	210	153	223	533	370	270	216	185	106
29	133	136	128	199	-----	251	538	343	266	218	187	108
30	136	142	108	194	-----	392	542	330	257	222	185	113
31	137	-----	120	189	-----	580	-----	296	-----	213	184	-----
TOTAL	4,051	4,246	4,264	7,137	4,543	5,672	14,555	15,445	7,882	6,302	6,177	4,645
MEAN	121	142	138	230	162	183	485	498	263	203	199	155
MAX	144	154	146	887	187	580	778	608	289	241	222	199
MIN	120	132	108	122	148	145	313	296	229	163	179	106
AC-FT	8,040	9,420	8,460	14,160	9,010	11,250	28,870	30,630	15,630	12,500	12,250	9,210
CAL YR 1968: TOTAL	60,950			MEAN 167	MAX 347	MIN 105	AC-FT 120,900					
WTR YR 1969: TOTAL	84,915			MEAN 233	MAX 887	MIN 106	AC-FT 168,400					

PORTNEUF RIVER BASIN

13-0750. Marsh Creek near McCammon, Idaho

LOCATION.--Lat 42°37'50", long 112°13'30", in NE¼ sec.22, T.9 S., R.36 E., Bannock County, on left bank 10 ft downstream from abandoned highway bridge, 70 ft upstream from county road crossing, 2 miles southwest of McCammon, and at mile 11.0.

DRAINAGE AREA.--355 sq mi. Mean altitude, 5,630 ft.

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,610 ft (by barometer). Prior to July 14, 1965, nonrecording gage 10 ft upstream at datum.

AVERAGE DISCHARGE.--15 years, 76.2 cfs (55,210 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 522 cfs Mar. 29 (gage height, 7.03 ft); minimum, 36 cfs May 30 (gage height, 2.27 ft).

Period of record: Maximum discharge observed, 1,120 cfs Feb. 12, 1962 (gage height, 13.25 ft); minimum observed, 20 cfs Aug. 5, 1961.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	80	82	82	92	109	429	146	42	93	59	61
2	68	80	82	83	94	103	367	139	45	90	60	61
3	68	82	82	82	84	99	312	135	48	91	63	61
4	68	82	80	80	82	99	281	129	47	87	61	61
5	66	78	80	80	80	94	256	123	50	87	65	58
6	66	80	83	90	82	95	248	118	55	78	57	58
7	68	80	79	94	82	93	251	102	61	79	54	58
8	70	79	78	91	82	91	239	113	57	71	54	60
9	71	92	79	80	82	88	230	107	57	70	57	65
10	57	82	77	76	83	90	222	106	63	69	56	67
11	57	79	79	75	86	86	219	108	84	68	52	66
12	76	76	70	77	94	84	213	110	77	65	59	66
13	76	71	75	83	112	82	212	106	69	68	60	68
14	80	72	74	189	97	80	207	94	63	66	61	85
15	91	72	76	154	96	80	200	106	70	68	60	80
16	85	73	79	115	95	82	184	103	75	68	61	77
17	82	79	78	104	92	87	183	102	82	66	59	76
18	82	85	78	98	91	115	191	91	98	62	61	78
19	82	91	77	118	88	191	198	84	92	60	65	77
20	80	91	78	245	88	160	183	80	99	59	68	78
21	81	91	73	276	89	149	183	75	108	61	75	80
22	82	90	74	299	90	159	177	69	118	58	69	82
23	82	90	74	174	88	212	174	66	100	55	68	83
24	81	92	78	142	89	183	184	65	112	58	66	82
25	81	98	77	151	133	186	176	60	115	63	64	82
26	80	94	79	190	128	213	170	54	102	60	58	84
27	79	90	79	198	122	318	166	48	98	56	61	85
28	79	85	67	156	113	415	160	44	98	57	61	83
29	79	77	68	138	-----	506	148	45	94	58	60	79
30	80	80	64	108	-----	508	143	41	94	80	57	89
31	80	-----	79	99	-----	480	-----	40	-----	61	57	-----
TOTAL	2,345	2,491	2,378	4,027	2,634	5,337	6,506	2,809	2,373	2,132	1,888	2,190
MEAN	75.6	83.0	76.7	130	94.1	172	217	90.6	79.1	68.8	60.9	73.0
MAX	91	98	83	299	133	508	429	146	118	93	75	89
MIN	57	71	64	75	80	80	143	40	42	55	52	58
AC-FT	4,650	4,940	4,720	7,990	5,220	10,590	12,900	5,570	4,710	4,230	3,740	4,340

CAL YR 1968: TOTAL 28,226
WTR YR 1969: TOTAL 37,110

MEAN 77.1
MEAN 102

MAX 259
MAX 508

MIN 41
MIN 40

AC-FT 55,990
AC-FT 73,610

13-0755. Portneuf River at Pocatello, Idaho

LOCATION.--Lat 42°52'20", long 112°28'05", in SE¼NW¼ sec.27, T.6 S., R.34 E., Bannock County, on left bank 1,400 ft downstream from Carson Street Bridge, at Pocatello, 1.2 miles upstream from Pocatello Creek and at mile 15.8.

DRAINAGE AREA.--1,250 sq mi, approximately. Mean altitude, 5,850 ft.

PERIOD OF RECORD.--May to September 1897, March 1898 to October 1899, August 1911 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,418.41 ft above mean sea level (U.S. Corps of Engineers datum). May 18, 1897, to Oct. 1899, nonrecording gage at site 1.6 miles upstream at different datum. Aug. 31, 1911, to May 13, 1927, and Oct. 13, 1927, to June 13, 1928, nonrecording gage 0.3 mile upstream at different datum. May 14 to Oct. 12, 1927, water-stage recorder near present site at different datum. June 14, 1928, to Sept. 28, 1950, water-stage recorder near Carson Street Bridge, 0.3 mile upstream at same datum as former nonrecording gages at this site. Sept. 29, 1950, to May 20, 1968, water-stage recorder at Fremont Street site, 1.0 mile upstream at datum 18.57 ft higher.

AVERAGE DISCHARGE.--56 years (1912-16, 1917-69), 252 cfs (182,600 acre-ft per year); 15-year base period (1952-67), 228 cfs.

EXTREMES.--Current year: Maximum discharge, 1,130 cfs Apr. 25 (gage height, 7.62 ft); minimum recorded, 1.7 cfs Oct. 12.

Period of record: Maximum discharge, 2,990 cfs Feb. 14, 1962 (gage height, 11.35 ft); minimum, 0.4 cfs July 3, 1961 (gage height, 2.90 ft).

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by Portneuf 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). Records of chemical analysis for the water year 1969 are published in Part 2 of this report.

REVISIONS.--WSP 1567: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 1-25, Feb. 1-7, Mar. 10-18, May 10 to June 12)
Oct. 1 to Feb. 7 Feb. 8 to Sept. 30

2.4	58	5.0	471	2.2	53	7.0	955
3.0	136	7.0	945	3.0	170	7.6	1,120
4.0	288			5.0	500		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	228	256	240	350	347	910	949	231	319	85	66
2	89	226	256	240	340	346	954	945	205	252	80	67
3	90	229	251	240	330	332	1,010	940	196	257	78	69
4	80	244	252	235	330	326	1,040	945	184	232	78	70
5	88	243	253	230	325	326	1,030	946	170	215	76	71
6	83	228	259	245	320	323	1,010	957	168	153	76	72
7	68	234	254	250	322	324	1,020	965	180	171	74	73
8	73	227	254	243	313	316	971	957	180	164	78	73
9	80	246	256	237	312	309	914	962	176	144	81	76
10	90	277	252	257	312	303	878	960	176	144	55	68
11	98	252	255	250	311	299	878	952	199	120	50	59
12	118	251	257	245	313	297	868	942	231	122	57	58
13	138	248	238	240	330	292	882	928	211	111	57	81
14	165	239	256	280	333	289	872	918	194	108	102	82
15	178	238	243	377	323	288	869	882	192	107	104	85
16	195	245	252	341	324	290	849	852	196	106	102	51
17	200	254	252	271	319	294	844	780	205	106	59	99
18	203	258	252	243	310	314	870	722	216	105	54	104
19	186	267	250	261	307	393	884	675	220	55	54	103
20	177	272	250	422	311	408	891	626	234	55	50	104
21	164	268	240	696	314	387	904	569	294	52	85	109
22	153	267	230	848	316	381	933	523	315	92	51	109
23	182	267	230	878	312	412	991	477	328	50	50	108
24	206	268	235	845	312	436	1,060	445	334	88	88	107
25	199	270	245	700	335	426	1,120	419	371	88	88	101
26	206	264	250	550	381	434	1,100	399	381	86	88	102
27	205	250	250	480	360	474	1,050	383	396	86	79	105
28	208	265	240	450	346	558	1,000	353	380	84	76	104
29	214	258	230	415	-----	674	968	330	353	92	75	58
30	218	251	215	380	-----	764	951	284	329	90	74	98
31	225	-----	235	360	-----	854	-----	261	-----	88	71	-----
TOTAL	4,670	7,534	7,648	11,949	9,111	12,216	28,521	22,246	7,445	4,182	2,680	2,612
MEAN	151	251	247	385	325	394	951	718	248	135	86.5	87.1
MAX	225	277	259	878	381	854	1,120	965	396	319	104	109
MIN	68	226	215	230	307	288	844	261	168	84	71	58
AC-FT	9,260	14,940	15,170	23,700	18,070	24,230	56,570	44,120	14,770	8,250	5,320	5,180

CAL YR 1968: TOTAL 84,347 MEAN 230 MAX 567 MIN 15 AC-FT 167,300
WTR YR 1969: TOTAL 120,814 MEAN 331 MAX 1,120 MIN 58 AC-FT 239,600

LOCATION.--Lat 42°52'49", long 112°23'27", in SE¼SW¼ sec.20, T.6 S., R.35 E., Bannock County, on right bank 6 ft upstream from culvert on Buckskin Road, 2 miles northeast of campus of Idaho State University in Pocatello, and 0.5 mile upstream from confluence with North Fork Pocatello Creek.

PERIOD OF RECORD.--October 1960 to January 1970 (discontinued).

AVERAGE DISCHARGE.--9 years, 0.232 cfs (168 acre-ft per year).

REMARKS.--Records good.

CAL YR 1968: TOTAL	85.23	MEAN .23	MAX .81	MIN .12	CFSM .05	IN .74	AC-FT 169
WTR YR 1969: TOTAL	159.78	MEAN .44	MAX 2.3	MIN .16	CFSM .10	IN 1.38	AC-FT 317

13-0757. South Fork Pocatello Creek near Pocatello, Idaho--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, THE PERIOD OCTOBER 1969 TO JANUARY 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.22	.19	.20								
2	.26	.22	.19	.20								
3	.24	.22	.19	.20								
4	.24	.22	.19	.19								
5	.24	.22	.19	.16								
6	.24	.21	.19	.15								
7	.24	.24	.19	.16								
8	.24	.24	.19	.16								
9	.22	.24	.20	.16								
10	.22	.21	.20	.16								
11	.21	.21	.20	.19								
12	.21	.21	.20	.24								
13	.21	.21	.20	.24								
14	.21	.21	.20	.24								
15	.21	.21	.20	.24								
16	.21	.21	.19	-								
17	.21	.21	.19	-								
18	.22	.20	.19	-								
19	.22	.20	.20	-								
20	.22	.20	.20	-								
21	.22	.20	.20	-								
22	.22	.19	.20	-								
23	.21	.19	.21	-								
24	.21	.19	.21	-								
25	.21	.19	.20	-								
26	.21	.19	.21	-								
27	.21	.19	.21	-								
28	.21	.19	.19	-								
29	.21	.19	.20	-	-----							
30	.22	.19	.21	-	-----							
31	.22	-----	.21	-	-----		-----		-----			-----
TOTAL	6.86	6.22	6.14	-								
MEAN	.22	.21	.20	-								
MAX	.26	.24	.21	-								
MIN	.21	.19	.19	-								
CFSM	.05	.05	.05	-								
IN.	.06	.05	.05	-								
AC-FT	14	12	12	-								
CAL YR 1969: TOTAL 160.88				MEAN .44	MAX 2.3	MIN .19	CFSM .10	IN 1.39	AC-FT 319			

PORTNEUF RIVER BASIN

13-0759. Fort Hall Michaud Canal near Pocatello, Idaho

LOCATION.--Lat 42°56'10", long 112°32'45", in SE&SW¼ sec.36, T.5 S., R.33 E., Power County, 5 miles downstream from Pocatello Creek and 6 miles northwest of Pocatello.

RECORDS AVAILABLE.--April 1964 to current year.

GAGE.--Sparling meters at pumping plant.

EXTREMES.--Current year: Maximum daily discharge, 224 cfs July 14; no flow for many days.

Period of record: Maximum daily discharge, 224 cfs July 14, 1969; no flow for many days.

REMARKS.--Records good. First diversion to this project started April 1964. Flow controlled by pumping plant which lifts water 90 ft for irrigation of 8,690 acres of land in Bureau of Indian Affairs project. Sparling meters rated by current-meter measurements.

COOPERATION.--Sparling-meter readings furnished by Bureau of Indian Affairs.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	0	0	0	0	0	0	38	150	178	153	110
2	49	0	0	0	0	0	0	22	163	182	146	136
3	63	0	0	0	0	0	0	23	166	190	145	128
4	63	0	0	0	0	0	0	26	166	178	151	112
5	63	0	0	0	0	0	0	28	166	194	162	131
6	62	0	0	0	0	0	0	28	166	194	161	100
7	52	0	0	0	0	0	0	51	166	218	166	91
8	54	0	0	0	0	0	0	48	170	214	163	83
9	32	0	0	0	0	0	0	45	178	210	169	84
10	40	0	0	0	0	0	0	42	170	210	110	86
11	37	0	0	0	0	0	0	53	147	208	166	78
12	37	0	0	0	0	0	0	62	149	133	154	86
13	40	0	0	0	0	0	0	68	141	141	152	98
14	18	0	0	0	0	0	0	68	86	224	152	104
15	9.0	0	0	0	0	0	0	69	81	214	150	135
16	0	0	0	0	0	0	0	69	150	220	150	135
17	0	0	0	0	0	0	0	76	147	220	149	129
18	0	0	0	0	0	0	0	89	145	214	145	121
19	0	0	0	0	0	0	0	93	147	212	145	117
20	0	0	0	0	0	0	0	93	155	182	145	74
21	0	0	0	0	0	0	0	90	145	216	146	74
22	0	0	0	0	0	0	0	90	148	208	149	74
23	0	0	0	0	0	0	0	98	177	205	124	74
24	0	0	0	0	0	0	0	106	150	194	122	74
25	0	0	0	0	0	0	0	108	152	196	148	76
26	0	0	0	0	0	0	0	122	148	116	135	74
27	0	0	0	0	0	0	0	134	147	80	138	70
28	0	0	0	0	0	0	0	159	72	193	144	67
29	0	0	0	0	-----	0	38	157	81	177	147	72
30	0	0	0	0	-----	0	0	155	148	183	84	74
31	0	-----	0	0	-----	0	-----	155	-----	163	73	-----
TOTAL	665.0	0	0	0	0	0	38	2,465	4,377	5,867	4,384	2,867
MEAN	21.5	0	0	0	0	0	1.27	79.5	146	189	141	95.6
MAX	63	0	0	0	0	0	38	159	178	224	166	136
MIN	0	0	0	0	0	0	0	22	72	80	73	67
AC-FT	1,320	0	0	0	0	0	75	4,890	8,680	11,640	8,700	5,690
CAL YR 1968: TOTAL	14,232.00			MEAN 38.9	MAX 185	MIN 0	AC-FT 28,230					
WTR YR 1969: TOTAL	20,663.00			MEAN 56.6	MAX 224	MIN 0	AC-FT 40,980					

DIVERSIONS FROM AMERICAN FALLS RESERVOIR

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13-0764. 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., Power County, 800 ft downstream from dam at American Falls.

PERIOD OF RECORD.--October 1957 to current year.

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

EXTREMES.--Period of record: Maximum daily discharge, 135 cfs July 13-15, 1967, July 9, 10, 1968, July 19-21, 1969; no flow for many days each year.

REMARKS.--Records good. Flow controlled by pumping plant which lifts water from American Falls Reservoir to point in NE¼ sec.32. Project irrigated 8,000 acres from this canal and 3,810 acres by pumping from ground water in 1969.

COOPERATION.--Record of pump operation furnished by Falls Irrigation District.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	0	0	0	0	0	0	18	96	94	92	66
2	17	0	0	0	0	0	0	18	96	108	89	66
3	17	0	0	0	0	0	0	18	96	112	89	66
4	26	0	0	0	0	0	0	18	96	112	88	66
5	31	0	0	0	0	0	0	38	95	112	88	66
6	28	0	0	0	0	0	0	43	95	112	88	66
7	28	0	0	0	0	0	0	43	95	112	88	66
8	28	0	0	0	0	0	0	43	95	112	88	66
9	28	0	0	0	0	0	0	43	95	107	88	53
10	28	0	0	0	0	0	0	43	102	107	88	53
11	28	0	0	0	0	0	0	43	96	112	88	53
12	28	0	0	0	0	0	0	49	78	112	76	53
13	28	0	0	0	0	0	0	60	60	112	70	53
14	28	0	0	0	0	0	0	60	55	112	83	53
15	20	0	0	0	0	0	0	60	55	118	87	50
16	17	0	0	0	0	0	0	60	54	120	76	50
17	17	0	0	0	0	0	0	60	54	120	70	50
18	6.0	0	0	0	0	0	0	60	54	131	84	52
19	0	0	0	0	0	0	0	64	53	135	88	50
20	0	0	0	0	0	0	0	66	67	135	88	50
21	0	0	0	0	0	0	0	66	70	135	88	50
22	0	0	0	0	0	0	0	66	70	126	89	36
23	0	0	0	0	0	0	0	74	87	121	89	36
24	8.0	0	0	0	0	0	0	77	92	115	89	36
25	17	0	0	0	0	0	0	77	92	115	89	36
26	17	0	0	0	0	0	0	77	92	102	90	36
27	0	0	0	0	0	0	0	77	93	97	90	36
28	0	0	0	0	0	0	0	89	93	98	90	36
29	0	0	0	0	-----	0	0	95	93	98	71	36
30	0	0	0	0	-----	0	14	96	94	98	66	36
31	0	-----	0	0	-----	0	-----	96	-----	98	66	-----
TOTAL	462.0	0	0	0	0	0	14	1,797	2,463	3,498	2,613	1,522
MEAN	14.9	0	0	0	0	0	.47	58.0	82.1	113	84.3	50.7
MAX	31	0	0	0	0	0	14	96	102	135	92	66
MIN	0	0	0	0	0	0	0	18	53	94	66	36
AC-FT	916	0	0	0	0	0	28	3,560	4,890	6,940	5,180	3,020
CAL YR 1968 : TOTAL	10,584.00			MEAN 28.9	MAX 135	MIN 0	AC-FT 20,990					
WTR YR 1969 : TOTAL	12,369.00			MEAN 33.9	MAX 135	MIN 0	AC-FT 24,530					

SNAKE RIVER MAIN STEM

13-0765. American Falls Reservoir at American Falls, Idaho

LOCATION.--Lat 42°46'45", long 112°52'45", in SE¼SW¼ sec.30, T.7 S., R.31 E., Power County, near right end of dam at outlet gates of reservoir on Snake River at American Falls and at mile 714.0.

DRAINAGE AREA.--13,580 sq mi, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--March 1926 to current year.

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

EXTREMES.--Current year: Maximum contents, 1,721,000 acre-ft Apr. 26 (elevation, 4,354.88 ft); minimum, 238,800 acre-ft Sept. 30 (elevation, 4,315.45 ft).
Period of record: Maximum contents, 1,748,000 acre-ft June 21, 1963 (elevation, 4,355.34 ft); minimum since full capacity was attained July 13, 1927, 2,000 acre-ft Sept. 9, 1961 (elevation, 4,296.26 ft).

REMARKS.--Reservoir is formed by concrete gravity dam with earth dikes at each end; partial storage began in 1926, full storage in 1927. Capacity, 1,700,000 acre-ft between elevations 4,295.66 ft (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.

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

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

4,315.0	231.4	4,340.0	983.5
4,320.0	340.9	4,350.0	1,457
4,330.0	616.2	4,355.0	1,728

CONTENTS, IN THOUSANDS OF ACRE-FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	745.6	846.9	1,070	1,267	1,277	1,283	1,286	1,702	1,561	1,436	926.8	449.8
2	741.4	853.0	1,076	1,271	1,274	1,282	1,289	1,702	1,552	1,433	907.4	437.6
3	736.9	859.5	1,084	1,277	1,274	1,282	1,306	1,695	1,543	1,425	891.6	420.2
4	729.2	867.2	1,093	1,283	1,274	1,281	1,329	1,696	1,534	1,417	873.9	408.6
5	726.0	873.9	1,100	1,284	1,275	1,283	1,350	1,695	1,521	1,407	858.3	394.0
6	720.4	883.3	1,120	1,287	1,278	1,286	1,367	1,694	1,511	1,390	839.7	382.4
7	715.5	888.8	1,131	1,288	1,281	1,289	1,394	1,696	1,497	1,377	824.0	370.8
8	713.8	894.7	1,138	1,292	1,282	1,289	1,422	1,689	1,486	1,359	809.2	360.2
9	711.7	901.4	1,146	1,291	1,282	1,289	1,448	1,688	1,471	1,343	792.9	351.9
10	712.7	910.3	1,150	1,289	1,283	1,288	1,469	1,687	1,465	1,325	778.0	342.1
11	713.8	919.2	1,155	1,287	1,282	1,287	1,492	1,682	1,457	1,308	761.7	333.8
12	712.0	918.3	1,167	1,288	1,282	1,285	1,517	1,677	1,462	1,288	747.1	325.7
13	715.9	930.5	1,176	1,289	1,283	1,285	1,541	1,671	1,460	1,268	733.4	317.2
14	716.5	939.8	1,181	1,289	1,283	1,285	1,567	1,660	1,461	1,250	719.7	310.5
15	720.0	941.8	1,184	1,289	1,284	1,283	1,598	1,659	1,463	1,231	707.3	305.5
16	730.2	954.3	1,190	1,289	1,284	1,282	1,619	1,654	1,465	1,210	688.8	298.4
17	735.5	963.1	1,197	1,288	1,285	1,282	1,643	1,649	1,465	1,191	676.0	291.3
18	740.7	971.0	1,205	1,288	1,283	1,282	1,662	1,647	1,462	1,172	663.1	283.1
19	750.9	977.7	1,211	1,289	1,283	1,284	1,684	1,635	1,455	1,151	649.8	278.4
20	754.5	986.1	1,217	1,289	1,283	1,288	1,703	1,635	1,446	1,133	636.2	270.9
21	766.8	993.0	1,224	1,291	1,283	1,289	1,713	1,633	1,428	1,114	622.0	265.9
22	772.6	996.4	1,227	1,298	1,284	1,290	1,713	1,632	1,419	1,095	606.8	263.7
23	782.6	1,007	1,234	1,300	1,284	1,292	1,707	1,630	1,413	1,079	592.2	262.0
24	791.0	1,005	1,244	1,299	1,282	1,291	1,712	1,628	1,405	1,061	575.6	259.2
25	797.0	1,021	1,250	1,299	1,284	1,288	1,716	1,622	1,404	1,041	557.1	258.5
26	804.4	1,030	1,258	1,294	1,283	1,285	1,720	1,615	1,406	1,026	540.3	257.7
27	812.2	1,037	1,266	1,295	1,283	1,284	1,717	1,601	1,408	1,009	524.2	254.6
28	819.6	1,046	1,269	1,290	1,283	1,286	1,710	1,596	1,416	994.7	504.0	251.2
29	825.2	1,055	1,269	1,290	-----	1,287	1,704	1,587	1,426	977.3	489.4	245.3
30	829.4	1,062	1,268	1,282	-----	1,287	1,706	1,580	1,433	958.5	476.1	238.8
31	840.0	-----	1,267	1,281	-----	1,286	-----	1,572	-----	941.0	462.8	-----
(†)	4,336.42	4,341.80	4,346.22	4,346.49	4,346.54	4,346.60	4,354.61	4,352.17	4,349.54	4,338.98	4,324.76	4,315.45
(‡)	+89.0	+222.0	+205.0	+14.0	+2.0	+3.0	+420.0	-134.0	-139.0	-492.0	-478.2	-224.0
MAX	840.0	1,062	1,269	1,300	1,285	1,292	1,720	1,702	1,561	1,436	926.8	449.8
MIN	711.7	846.9	1,070	1,267	1,274	1,281	1,286	1,572	1,404	941.0	462.8	238.8

CAL YR 1968: MAX 1,700 MIN 712 ‡ +217.0
WTR YR 1969: MAX 1,720 MIN 238.8 ‡ -512.2

† Elevation, in feet, at end of month.

‡ Change in contents, in thousands of acre-feet.

13-0770. Snake River at Neeley, Idaho

LOCATION.--Lat 42°46'06", long 112°52'42", in NE¼SW¼ sec.31, T.7 S., R.31 E., Power County, on right bank 400 ft upstream from fish hatchery buildings, 0.9 mile downstream from American Falls Dam, at mile 713.0. Records computed to show flow at former site in sec.11, T.8 S., R.30 E., 0.5 mile north of Neeley and 2.5 miles downstream from present site, by adding inflow between sites.

DRAINAGE AREA.--13,600 sq mi, approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--March 1906 to current year. 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, nonrecording gages and Aug. 8, 1910, to June 6, 1930, water-stage recorder at site 2.5 miles downstream at different datum. June 7, 1930, to Mar. 19, 1945, water-stage recorder at site 0.4 mile upstream at datum 0.4 ft higher.

AVERAGE DISCHARGE.--43 years (1926-69), 6,771 cfs (4,906,000 acre-ft per year); 15-year base period (1952-67), 6,704 cfs.

EXTREMES.--Current year: Maximum discharge, 23,400 cfs Apr. 27 (gage height, 8.55 ft); minimum, 68 cfs Dec. 6, 7 (gage height, 1.00 ft).

Period of record: Maximum daily discharge, 48,400 cfs June 20, 1918 (gage height, 13.5 ft, site and datum then in use); minimum, 50 cfs Oct. 22, 23, Nov. 14-16, 1941, Oct. 29, 1961.

REMARKS.--Records excellent. Flow regulated by American Falls Reservoir (see sta 13-0765) 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 above station. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

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

REVISIONS (WATER YEARS).--WSP 1317: 1910.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 29 to June 25, July 15 to Aug. 20)

2.9	770	5.0	5,240
3.2	1,010	6.0	9,600
3.5	1,370	7.0	14,700
4.0	2,220	9.0	26,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,510	3,000	3,090	5,510	9,500	8,100	13,300	20,000	13,000	9,650	12,200	10,400
2	6,750	3,000	3,200	5,160	9,500	8,100	12,400	19,200	13,200	11,200	12,400	10,300
3	6,590	3,030	3,320	4,970	8,520	8,100	6,670	20,000	13,100	12,300	12,600	10,200
4	6,390	3,030	3,260	5,010	7,960	8,100	5,130	19,100	12,100	12,400	12,100	10,200
5	6,390	3,030	2,760	6,350	8,000	8,100	5,130	18,300	12,400	12,400	13,400	10,200
6	6,350	3,030	804	7,210	8,000	8,140	5,160	17,200	13,000	12,700	12,500	9,850
7	6,350	3,030	1,890	7,250	8,050	8,140	4,720	16,200	12,800	12,600	13,700	9,600
8	5,710	3,030	3,760	7,250	8,100	8,140	4,020	15,200	12,700	12,400	12,800	9,450
9	4,750	3,060	3,760	8,050	8,100	8,140	4,020	13,400	12,400	12,200	12,600	8,950
10	4,260	3,060	3,790	8,380	8,000	8,330	4,050	12,100	11,800	12,000	12,600	8,470
11	4,260	3,060	3,790	8,420	8,000	8,470	4,050	12,000	11,100	12,200	12,500	8,380
12	4,360	3,060	3,950	8,470	8,000	8,520	4,050	12,600	10,700	12,500	12,600	8,050
13	4,570	3,090	4,180	8,710	8,050	8,520	4,080	12,200	10,200	12,800	12,600	7,510
14	4,330	3,090	4,290	8,900	8,000	8,520	4,120	11,600	9,500	13,000	12,400	7,290
15	4,150	2,980	4,320	8,900	7,960	8,520	4,540	11,800	9,350	13,100	12,400	7,250
16	3,820	2,890	4,360	9,000	8,000	8,520	5,160	11,600	9,100	13,300	12,600	7,740
17	3,410	2,890	4,430	9,100	8,190	7,780	5,630	11,400	8,860	13,200	12,400	7,920
18	2,890	2,890	4,460	9,150	8,380	8,050	5,360	11,500	9,100	13,400	12,200	7,600
19	2,690	2,890	4,500	9,250	8,380	8,050	6,910	11,600	10,200	13,500	11,800	7,510
20	2,690	2,890	4,400	9,200	8,190	8,190	10,600	11,700	11,000	13,300	11,500	7,470
21	2,640	2,890	4,290	9,250	8,050	9,200	14,000	11,700	11,400	13,200	11,500	7,120
22	2,640	2,950	4,290	9,200	8,140	10,400	17,900	12,000	11,400	13,200	11,600	6,750
23	2,640	3,090	4,290	9,950	8,100	11,500	18,700	12,400	11,400	13,300	11,600	6,550
24	2,640	3,090	4,320	10,700	8,100	12,800	18,700	12,800	10,800	13,400	11,800	6,470
25	2,640	3,090	4,360	10,800	8,050	13,400	18,300	13,200	10,200	13,300	12,000	6,390
26	2,660	3,090	4,360	10,800	8,050	12,900	19,700	13,400	9,950	13,200	12,100	6,270
27	2,660	3,090	4,460	10,700	8,050	10,800	22,100	13,500	8,700	13,000	12,200	6,230
28	2,640	3,090	5,790	10,300	8,050	11,400	23,300	13,200	8,520	12,700	12,000	6,430
29	2,640	3,090	6,710	9,350	-----	11,700	21,100	13,000	8,710	12,400	11,600	6,590
30	2,640	3,120	6,030	9,350	-----	12,400	20,000	13,000	9,100	12,000	11,000	6,750
31	2,870	-----	5,550	9,550	-----	13,000	-----	13,000	-----	11,900	10,600	-----
TOTAL	126,530	90,620	126,764	264,190	229,470	294,030	312,900	429,900	325,790	391,750	377,900	239,890
MEAN	4,082	3,021	4,089	8,522	8,195	9,485	10,430	13,870	10,860	12,640	12,190	7,996
MAX	6,750	3,120	6,710	10,800	9,500	13,400	23,300	20,000	13,200	13,500	13,700	10,400
MIN	2,640	2,890	804	4,970	7,960	7,780	4,020	11,400	8,520	9,650	10,600	6,230
AC-FT	251,000	179,700	251,400	524,000	455,100	583,200	620,600	852,700	646,200	777,000	749,600	475,800

CAL YR 1968: TOTAL 2,456,012 MEAN 6,710 MAX 20,600 MIN 238 AC-FT 4,871,000
WTR YR 1969: TOTAL 3,209,734 MEAN 8,794 MAX 23,300 MIN 804 AC-FT 6,366,000

RAFT RIVER BASIN

13-0777. George Creek near Yost, Utah

LOCATION.--Lat 41°55'07", long 113°28'51", in SE 1/4 SW 1/4 sec. 20, T.14 N., R.14 W., Box Elder County, on right bank 1,000 ft upstream from section corner and boundary of Sawtooth National Forest, 4.5 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.

PERIOD OF RECORD.--July 1959 to current year.

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

AVERAGE DISCHARGE.--10 years, 6.98 cfs (5,060 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 84 cfs May 26 (gage height, 1.61 ft); minimum daily, 1.6 cfs several days during January.

Period of record: Maximum discharge, 146 cfs June 10, 1963 (gage height, 1.96 ft); minimum daily, 1.1 cfs several days in January and February 1962.

REMARKS.--Records good. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.0	2.4	1.7	1.7	1.9	7.2	17	47	21	6.8	3.4
2	2.4	2.0	2.2	1.7	1.7	1.9	7.8	20	40	20	6.1	3.4
3	2.4	2.4	2.2	1.7	1.7	1.9	8.5	23	37	19	6.4	3.4
4	2.5	2.5	2.2	1.7	1.7	1.9	8.7	26	40	20	6.3	3.4
5	2.6	2.2	2.0	1.7	1.7	1.9	9.5	32	46	19	5.8	3.4
6	2.6	2.1	2.0	1.8	1.8	1.9	11	42	48	18	5.8	3.4
7	2.6	2.1	2.0	1.7	1.7	1.9	8.8	50	45	17	5.5	3.4
8	2.6	2.0	2.0	1.6	1.7	1.9	8.3	57	43	16	5.5	3.4
9	2.6	2.9	2.0	1.6	1.7	1.9	7.8	59	40	15	5.1	3.4
10	2.6	2.2	2.0	1.6	1.7	1.9	8.7	61	40	14	4.9	3.4
11	2.6	2.4	2.0	1.6	1.7	1.9	9.4	60	34	13	5.0	3.4
12	2.6	2.2	2.0	1.7	1.7	1.9	10	58	29	12	5.4	3.4
13	2.6	2.2	2.0	1.7	1.7	1.9	10	59	26	12	4.9	3.3
14	4.3	1.9	2.0	1.7	1.8	1.9	9.1	66	25	12	4.8	3.2
15	2.7	2.2	2.0	1.7	1.7	1.9	8.8	65	25	12	4.8	3.2
16	2.5	2.4	2.0	1.6	1.7	1.9	8.8	56	26	11	4.4	3.2
17	2.1	2.2	2.0	1.6	1.7	2.0	8.4	55	24	11	4.4	3.2
18	2.2	2.2	2.0	1.6	1.9	2.0	8.7	61	24	11	4.5	3.2
19	2.1	2.4	2.0	1.7	1.9	2.0	8.7	65	23	11	4.4	3.2
20	2.2	2.2	2.0	1.9	1.9	2.2	8.8	62	30	10	4.3	3.2
21	2.1	2.4	2.0	2.2	1.9	2.2	11	56	31	10	4.1	3.6
22	2.2	2.4	2.0	2.0	1.9	2.2	21	54	31	9.5	4.1	3.3
23	2.2	2.4	2.0	2.0	1.9	2.2	30	57	31	9.0	3.8	3.2
24	2.2	2.4	2.0	2.0	1.9	2.2	26	64	32	8.7	3.8	3.2
25	2.2	2.3	1.9	1.9	1.9	2.3	19	73	30	8.2	3.8	3.2
26	2.1	2.4	1.8	1.8	2.0	2.4	15	80	29	7.7	3.8	3.2
27	2.0	2.4	1.8	1.7	2.0	2.6	13	71	28	7.3	3.7	3.0
28	2.0	2.4	1.8	1.7	2.0	2.9	12	61	26	7.2	3.7	3.0
29	2.0	2.2	1.7	1.7	-----	3.8	14	53	24	7.6	3.7	3.0
30	2.2	2.3	1.7	1.7	-----	5.1	16	51	22	7.5	3.4	3.0
31	2.1	-----	1.7	1.7	-----	6.7	-----	52	-----	7.0	3.4	-----
TOTAL	74.5	68.3	61.4	54.0	50.3	73.2	354.0	1,666	976	383.7	146.4	98.2
MEAN	2.40	2.28	1.98	1.74	1.80	2.36	11.8	53.7	32.5	12.4	4.72	3.27
MAX	4.3	2.9	2.4	2.2	2.0	6.7	30	80	48	21	6.8	3.6
MIN	2.0	1.9	1.7	1.6	1.7	1.9	7.2	17	22	7.0	3.4	3.0
AC-FT	148	135	122	107	100	145	702	3,300	1,940	761	290	195
CAL YR 1968: TOTAL	1,674.7			MEAN 4.58	MAX 35	MIN 1.7	AC-FT 3,320					
WTR YR 1969: TOTAL	4,006.0			MEAN 11.0	MAX 80	MIN 1.6	AC-FT 7,950					

PEAK DISCHARGE (BASE, 40 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-26	2200	1.61	84	6-20	2000	1.43	65
6-5	2000	1.36	49				

13-0780. Raft River at Peterson Ranch, near Bridge, Idaho

LOCATION.--Lat 42°04'00", long 113°26'50", in NW¼NW¼ sec.5, T.16 S., R.26 E., Cassia County, on left bank 100 ft upstream from Onemile Creek, 7.5 miles southwest of Bridge Post Office, 16 miles south of Malta, and at mile 45.6.

DRAINAGE AREA.--412 sq mi. Mean altitude, 6,300 ft.

PERIOD OF RECORD.--September 1946 to December 1953, May 1955 to current year.

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

AVERAGE DISCHARGE.--21 years, 16.5 cfs (11,950 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 109 cfs July 30 (gage height, 2.58 ft); minimum, 2.3 cfs Feb. 3, 4 (gage height, 1.10 ft).

Period of record: 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, 0.8 cfs Jan. 23, 1961 (gage height, 1.02 ft), result of ice jam upstream.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Diversions above station for irrigation. Records of chemical analysis for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 28 to Sept. 30)

Oct. 1 to Mar. 2			Mar. 3 to Sept. 30			
1.2	5.8		1.0	1.8	1.5	16
1.3	8.9		1.1	3.1	1.7	27
1.4	14		1.2	5.1	1.9	42
1.5	20		1.3	7.7	2.1	61
			1.4	11		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	9.4	9.5	8.1	9.6	15	54	33	7.2	11	9.7	3.2
2	9.8	8.9	9.1	8.5	8.9	16	50	32	7.4	8.7	7.2	3.0
3	8.3	9.9	8.3	8.6	9.1	16	51	30	6.8	7.5	6.1	3.3
4	7.8	10	8.4	8.5	8.9	16	50	28	6.0	7.1	6.1	3.7
5	7.7	9.9	9.5	8.9	9.4	16	47	27	6.4	6.9	5.7	3.7
6	7.5	10	9.9	12	11	16	48	26	7.0	7.0	5.6	3.2
7	7.6	10	9.1	12	11	16	48	25	6.6	7.5	5.3	3.1
8	7.7	10	10	11	10	15	46	24	6.1	7.3	5.2	3.5
9	7.8	9.6	9.9	9.0	11	14	45	23	6.7	7.3	4.9	3.8
10	7.9	9.5	11	8.5	11	13	44	24	7.6	6.5	4.7	4.2
11	8.0	9.6	11	8.1	11	13	44	32	9.7	5.9	4.7	4.4
12	8.0	9.6	9.3	8.5	13	13	44	35	8.0	5.8	5.2	4.3
13	7.7	9.4	8.4	9.3	14	13	44	27	9.6	5.8	5.0	5.2
14	8.6	8.8	8.4	11	15	14	43	30	9.6	6.0	4.9	5.0
15	8.3	8.8	8.7	11	13	15	42	33	8.5	7.6	4.7	4.9
16	8.3	8.9	9.3	10	15	17	41	31	9.3	10	5.2	5.4
17	8.0	9.3	8.8	10	13	20	40	34	10	8.5	5.3	5.1
18	8.3	10	8.3	8.8	13	23	39	28	8.9	6.5	4.6	5.0
19	8.3	11	9.1	10	14	19	37	28	7.5	6.2	4.6	5.2
20	8.3	11	7.6	11	14	19	37	25	7.6	6.2	4.5	5.1
21	8.3	11	7.3	14	15	19	36	19	9.4	5.8	4.7	5.6
22	8.3	11	6.9	18	15	21	35	17	11	5.3	4.4	5.4
23	8.6	11	7.1	15	15	20	34	14	12	5.3	4.4	5.8
24	8.6	11	7.6	9.7	15	18	33	13	13	5.0	4.2	5.7
25	8.6	12	7.6	11	15	18	34	12	14	5.1	4.0	6.1
26	8.6	9.5	7.7	13	15	23	42	11	24	5.1	4.4	5.7
27	8.3	9.1	7.6	13	13	28	40	9.9	18	4.9	4.4	6.0
28	8.6	9.9	8.0	11	14	31	38	9.5	14	4.4	3.9	7.2
29	8.6	8.7	8.2	11	-----	36	36	9.7	15	4.5	3.3	5.5
30	8.9	9.5	7.3	9.8	-----	40	35	9.1	13	20	3.1	5.5
31	9.4	-----	7.7	9.3	-----	50	-----	7.8	-----	21	3.3	-----
TOTAL	257.2	246.3	266.6	327.6	351.9	623	1,257	707.0	299.9	231.7	153.3	142.8
MEAN	8.30	9.88	8.60	10.6	12.6	20.1	41.9	22.8	10.0	7.47	4.95	4.76
MAX	9.8	12	11	18	15	50	54	35	24	21	9.7	7.2
MIN	7.5	8.7	6.9	8.1	8.9	13	33	7.8	6.0	4.4	3.1	3.0
AC-FT	510	588	529	650	698	1,240	2,490	1,400	595	460	304	283

CAL YR 1968: TOTAL 3,454.5 MEAN 9.44 MAX 35 MIN 4.2 AC-FT 6,850
WTR YR 1969: TOTAL 4,914.3 MEAN 13.5 MAX 54 MIN 3.0 AC-FT 9,750

NOTE.--No gage-height record Mar. 3 to Apr. 16.

RAFT RIVER BASIN

13-0790. Clear Creek near Naf, Idaho

LOCATION.--Lat 41°58'01", long 113°17'09", in SE 1/4 NW 1/4 sec. 1, T.14 N., R.13 W. (Salt Lake meridian), Box Elder County, 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.

PERIOD OF RECORD.--January 1910 to June 1911, June to December 1912 (gage heights only), October 1944 to current year. 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, nonrecording 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.--25 years, 10.3 cfs (7,640 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 200 cfs May 26 (gage height, 1.80 ft); minimum, 0.18 cfs several days in September.

Period of record: Maximum discharge, 386 cfs June 15, 1967 (gage height, 2.26 ft); minimum, 0.1 cfs several times in summers of 1952-54, 1956, 1959-61, 1963.

REMARKS.--Records good, except those for period of no gage-height record, which are fair. Three small diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.9	2.1	2.0	2.0	2.0	11	30	93	48	6.5	3.0
2	2.5	2.7	2.1	2.0	2.0	2.0	12	33	90	47	8.4	2.6
3	2.5	3.1	2.1	2.0	2.0	2.0	13	38	93	50	9.8	3.1
4	2.5	3.1	2.1	2.0	2.0	2.0	13	40	89	47	9.7	.84
5	2.5	2.8	2.2	2.0	2.0	2.0	14	43	90	43	9.1	1.2
6	2.5	2.7	2.2	2.0	2.0	2.0	17	48	90	42	8.6	2.9
7	2.5	2.7	2.1	2.0	2.0	2.0	15	55	92	40	8.1	2.7
8	2.4	2.7	2.0	2.0	2.0	2.0	13	70	83	36	7.5	2.8
9	2.4	3.8	1.9	2.0	2.0	2.0	12	87	80	33	7.1	3.0
10	2.4	3.1	2.1	2.0	2.0	2.0	12	88	83	30	6.7	3.0
11	2.1	3.1	2.1	2.0	2.0	2.0	14	95	73	28	6.5	3.0
12	2.1	2.5	2.1	2.0	2.0	2.0	16	83	65	28	5.8	.70
13	2.1	2.2	2.1	2.0	2.0	2.0	17	89	61	27	5.2	1.0
14	5.7	2.2	2.1	2.0	2.0	2.0	16	105	60	27	4.9	2.7
15	3.2	2.3	2.1	2.0	2.0	2.0	15	122	56	27	4.4	2.7
16	2.8	2.5	2.2	2.0	2.0	2.5	13	88	64	26	4.0	2.6
17	2.4	2.4	2.1	2.0	2.0	2.5	12	80	63	24	1.3	2.6
18	3.0	2.2	2.1	2.0	2.0	2.5	14	93	58	22	1.4	2.4
19	2.8	2.5	2.1	2.2	2.0	2.5	13	112	59	20	3.8	2.7
20	2.9	2.2	2.1	2.5	2.0	3.0	13	129	65	17	3.7	.70
21	2.8	2.2	2.1	4.0	2.0	3.3	16	120	78	16	3.6	1.2
22	2.8	2.2	2.1	4.0	2.0	3.3	23	122	73	14	3.5	3.1
23	2.9	2.2	2.1	2.5	2.0	3.3	37	115	73	14	3.4	2.7
24	2.9	2.1	2.1	2.0	2.0	3.3	43	125	78	13	3.3	2.6
25	2.9	2.1	2.0	2.0	2.0	3.3	41	133	72	13	3.3	2.7
26	2.9	2.1	2.0	2.0	2.0	3.5	35	141	63	12	.90	2.5
27	2.8	2.1	2.0	2.0	2.0	4.0	27	162	60	11	1.0	2.3
28	2.9	2.1	2.0	2.0	2.0	5.0	26	141	59	11	3.0	2.4
29	2.9	2.1	2.0	2.0	-----	7.0	26	130	55	9.1	3.0	2.3
30	3.2	2.1	2.0	2.0	-----	9.0	30	121	51	7.7	3.0	2.3
31	2.9	-----	2.0	2.0	-----	11	-----	117	-----	7.1	3.0	-----
TOTAL	85.8	75.0	64.4	67.2	56.0	99.0	579	2,955	2,169	789.9	153.50	70.34
MEAN	2.77	2.50	2.08	2.17	2.00	3.19	19.3	95.3	72.3	25.5	4.95	2.34
MAX	5.7	3.8	2.2	4.0	2.0	11	43	162	93	50	9.8	3.1
MIN	2.1	2.1	1.9	2.0	2.0	2.0	11	30	51	7.1	.90	.70
AC-FT	170	149	128	133	111	196	1,150	5,860	4,300	1,570	304	140
CAL YR 1968: TOTAL	2,571.3			MEAN 7.03		MAX 67		MIN 1.9		AC-FT 5,100		
WTR YR 1969: TOTAL	7,164.14			MEAN 19.6		MAX 162		MIN .70		AC-FT 14,210		

PEAK DISCHARGE (BASE, 70 CFS)

NOTE.--No gage-height record Dec. 25 to Mar. 30.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
5-10	2300	1.60	104	5-26	2200	1.80	200
5-14	2300	1.68	141	6-20	2200	1.72	112

13-0791. Cassia Creek above Stinson Creek, near Elba, Idaho

LOCATION.--Lat 42°15'10", long 113°39'15", in lot 2 NE¼ sec.33, T.13 S., R.24 E., Cassia County, Sawtooth National Forest, on right bank 300 ft upstream from Stinson Creek, and 5 miles west of Elba.

DRAINAGE AREA.--7.2 sq mi, approximately.

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 32 cfs June 24 (gage height, 2.36 ft); minimum discharge, 0.64 cfs part of many days in July, August, and September.

Period of record: Maximum discharge, 32 cfs June 24, 1969 (gage height, 2.36 ft); minimum, 0.19 cfs July 23, 1968 (gage height, 1.17 ft).

REMARKS.--Records good.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 18		Mar. 19 to June 15		June 16 to Sept. 30	
1.2	0.45	1.3	1.4	1.2	0.64
1.3	1.7	1.5	6.0	1.3	1.6
1.5	5.3	2.0	20	1.4	3.4
		2.2	26	1.7	11

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	.92	1.0	1.2	2.0	.92	24	10	2.7	2.2	.80	.72
2	.80	.92	1.0	.92	1.8	.92	23	9.6	2.7	1.8	.80	.72
3	.80	1.0	.92	.80	1.7	.92	23	9.6	2.5	1.6	.89	.72
4	.80	1.5	.92	1.2	1.4	.92	22	9.3	2.5	1.5	.80	.72
5	.80	1.2	1.0	2.2	1.2	1.0	22	9.1	2.5	1.5	.80	.72
6	.70	1.0	.92	3.8	1.2	1.2	24	9.1	2.5	1.5	.80	.72
7	.70	.92	1.7	3.4	1.2	1.2	20	8.8	2.9	1.5	.72	.72
8	.70	.92	1.0	3.2	1.2	1.2	18	8.6	2.7	1.5	.72	.72
9	.70	1.7	.92	2.9	1.0	1.1	16	8.0	2.5	1.5	.72	.72
10	.70	1.2	.92	2.5	1.0	1.1	16	7.5	3.6	1.4	.72	.80
11	.70	1.0	1.5	2.3	1.0	1.0	16	7.3	3.6	1.3	.72	1.8
12	.70	1.0	1.2	2.3	1.2	1.0	16	7.3	2.9	1.2	.72	.89
13	.80	.92	1.0	2.2	1.5	.92	16	6.8	2.5	1.1	.80	.89
14	1.2	.80	.92	2.3	1.2	.92	14	7.0	2.2	1.2	.80	.80
15	1.2	.80	.80	2.5	1.0	.92	13	6.5	2.0	1.1	.80	.80
16	1.2	.70	1.0	2.3	1.0	1.0	13	6.0	2.3	1.1	.80	.80
17	1.0	.80	.92	2.0	1.0	1.2	12	5.5	2.0	1.1	.80	.80
18	.92	1.0	1.0	2.0	1.0	1.7	14	5.3	1.9	.99	.80	.80
19	.80	1.2	.80	1.8	1.0	2.5	12	5.0	2.2	.99	.80	.89
20	.80	1.0	1.0	2.3	.92	2.5	13	5.0	2.2	.99	.80	.89
21	.80	1.0	1.0	4.0	.92	2.5	14	4.8	2.2	.89	.80	.89
22	.70	1.4	.94	5.3	.92	2.9	16	4.6	1.9	.89	.72	.89
23	.70	1.5	.96	4.4	.92	3.6	18	4.3	2.2	.80	.80	.89
24	.70	1.4	1.0	4.2	.92	3.4	19	4.1	8.9	.80	.80	.89
25	.70	3.8	.92	3.4	.92	3.4	16	3.8	6.8	.89	.72	.89
26	.70	1.7	.92	3.4	.92	4.6	14	3.6	4.4	.80	.80	.89
27	.70	1.2	.92	3.0	.92	7.3	12	3.4	3.4	.72	.80	.89
28	.70	1.0	.80	2.7	.92	11	11	3.2	2.9	.80	.80	.80
29	.70	2.0	1.2	2.5	-----	16	10	3.2	2.5	.89	.72	.89
30	1.2	1.0	1.4	2.3	-----	20	10	2.9	2.3	.99	.72	.89
31	1.0	-----	1.4	2.2	-----	23	-----	2.9	-----	.80	.72	-----
TOTAL	25.42	36.50	31.90	81.52	31.88	121.84	487	192.1	88.4	36.34	24.01	25.45
MEAN	.82	1.22	1.03	2.63	1.14	3.93	16.2	6.20	2.95	1.17	.77	.85
MAX	1.2	3.8	1.7	5.3	2.0	23	24	10	8.9	2.2	.89	1.8
MIN	.70	.70	.80	.80	.92	.92	10	2.9	1.9	.72	.72	.72
CFSM	.11	.17	.14	.37	.16	.55	2.25	.86	.41	.16	.11	.12
IN.	.13	.19	.16	.42	.16	.63	2.52	.99	.46	.19	.12	.13
AC-FT	50	72	63	162	63	242	966	381	175	72	48	50
CAL YR 1968: TOTAL	663.04		MEAN	1.81	MAX	7.7	MIN	.33	CFSM	.25	IN	3.42
WTR YR 1969: TOTAL	1,182.36		MEAN	3.24	MAX	24	MIN	.70	CFSM	.45	IN	6.11
									AC-FT	1,320		
									AC-FT	2,350		

SNAKE RIVER MAIN STEM

13-0800. North Side Minidoka Canal near Minidoka, Idaho

LOCATION.--Lat 42°40'15", long 113°29'00", in SE¼NW¼ sec.1, T.9 S., R.25 E., Minidoka County, on left bank 600 ft downstream from headgates at Minidoka Dam and 6 miles south of Minidoka.

PERIOD OF RECORD.--April 1908 to current year. Monthly discharge only for some periods, published in WSP 1317.

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

AVERAGE DISCHARGE.--28 years (1941-69), 616 cfs (446,300 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,920 cfs July 14-18, 1969; no flow in winters.

REMARKS.--Records excellent. 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.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	606	0	0	0	0	0	0	1,660	1,570	1,330	1,650	1,310
2	692	0	0	0	0	0	0	1,660	1,580	1,620	1,650	1,260
3	764	0	0	0	0	0	0	1,670	1,600	1,840	1,650	1,260
4	790	0	0	0	0	0	0	1,660	1,660	1,880	1,640	1,220
5	790	0	0	0	0	0	0	1,630	1,670	1,880	1,640	1,160
6	790	0	0	0	0	0	0	1,580	1,610	1,890	1,640	1,140
7	748	0	0	0	0	0	0	1,580	1,520	1,890	1,640	1,110
8	698	0	0	0	0	0	0	1,640	1,390	1,900	1,630	1,080
9	688	0	0	0	0	0	0	1,660	1,290	1,900	1,600	932
10	702	0	0	0	0	0	0	1,680	1,200	1,910	1,590	891
11	702	0	0	0	0	0	0	1,750	992	1,910	1,600	860
12	700	0	0	0	0	0	0	1,770	958	1,920	1,600	781
13	698	0	0	0	0	0	0	1,780	936	1,920	1,550	779
14	598	0	0	0	0	0	0	1,800	882	1,920	1,640	775
15	478	0	0	0	0	0	46	1,770	882	1,920	1,700	772
16	440	0	0	0	0	0	215	1,720	871	1,920	1,640	772
17	367	0	0	0	0	0	349	1,720	812	1,920	1,630	772
18	126	0	0	0	0	0	437	1,760	972	1,920	1,660	775
19	0	0	0	0	0	0	520	1,850	1,220	1,890	1,690	772
20	0	0	0	0	0	0	626	1,870	1,400	1,830	1,670	772
21	0	0	0	0	0	0	819	1,870	1,480	1,820	1,700	772
22	0	0	0	0	0	0	1,030	1,880	1,490	1,820	1,630	728
23	0	0	0	0	0	0	1,530	1,880	1,570	1,820	1,620	660
24	0	0	0	0	0	0	1,800	1,880	1,440	1,820	1,580	686
25	0	0	0	0	0	0	1,820	1,880	1,160	1,720	1,580	724
26	0	0	0	0	0	0	1,790	1,850	1,080	1,520	1,580	737
27	0	0	0	0	0	0	1,790	1,760	963	1,480	1,500	801
28	0	0	0	0	0	0	1,810	1,710	911	1,510	1,410	836
29	0	0	0	0	-----	0	1,790	1,650	963	1,480	1,390	836
30	0	0	0	0	-----	0	1,730	1,630	1,120	1,430	1,340	834
31	0	-----	0	0	-----	0	-----	1,590	-----	1,560	1,340	-----
TOTAL	11,377	0	0	0	0	0	18,102	53,790	37,192	55,090	49,380	26,807
MEAN	367	0	0	0	0	0	603	1,735	1,240	1,777	1,593	894
MAX	790	0	0	0	0	0	1,820	1,880	1,670	1,920	1,700	1,310
MIN	0	0	0	0	0	0	0	1,580	812	1,330	1,340	660
AC-FT	22,570	0	0	0	0	0	35,900	106,700	73,770	109,300	97,940	53,170
CAL YR 1968: TOTAL	224,673.00			MEAN 614		MAX 1,890	MIN 0	AC-FT 445,600				
WTR YR 1969: TOTAL	251,738.00			MEAN 690		MAX 1,920	MIN 0	AC-FT 499,300				

13-0805. South Side Minidoka Canal near Minidoka, Idaho

LOCATION.--Lat 42°39'45", long 113°29'20", in SW¼NW¼ sec.12, T.9 S., R.25 E., Cassia County, on right bank 900 ft downstream from headgates at Minidoka Dam and 6 miles south of Minidoka.

PERIOD OF RECORD.--April 1908 to current year. 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.--28 years (1941-69), 488 cfs (353,600 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,490 cfs July 12-16, 1967, July 11-20, 1969; no flow for long periods during nonirrigation seasons.

REMARKS.--Records good. Flow controlled by headgates. Canal diverts water from Lake Walcott at left end of Minidoka Dam for irrigation of 56,000 acres under South Side Minidoka project. Diversion began in April 1908.

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

REVISIONS (WATER YEARS).--WSP 1347: 1910.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	459	0	0	0	0	0	0	1,310	1,350	1,190	1,270	994
2	557	0	0	0	0	0	0	1,330	1,300	1,320	1,260	1,060
3	596	0	0	0	0	0	0	1,330	1,250	1,410	1,270	1,050
4	583	0	0	0	0	0	0	1,330	1,240	1,450	1,300	1,030
5	562	0	0	0	0	0	0	1,320	1,260	1,450	1,340	946
6	529	0	0	0	0	0	0	1,320	1,250	1,450	1,380	868
7	512	0	0	0	0	0	0	1,320	1,250	1,460	1,400	871
8	476	0	0	0	0	0	0	1,350	1,180	1,460	1,390	838
9	447	0	0	0	0	0	12	1,400	1,110	1,430	1,350	769
10	429	0	0	0	0	0	30	1,420	1,060	1,420	1,340	757
11	445	0	0	0	0	0	30	1,420	910	1,490	1,370	740
12	476	0	0	0	0	0	30	1,420	775	1,490	1,400	684
13	479	0	0	0	0	0	136	1,420	769	1,490	1,400	633
14	472	0	0	0	0	0	231	1,420	752	1,490	1,400	604
15	411	0	0	0	0	0	282	1,400	781	1,490	1,390	601
16	350	0	0	0	0	0	322	1,380	814	1,490	1,360	583
17	322	0	0	0	0	0	467	1,380	823	1,490	1,330	604
18	138	0	0	0	0	0	630	1,370	961	1,490	1,320	601
19	0	0	0	0	0	0	617	1,370	1,180	1,490	1,310	588
20	0	0	0	0	0	0	627	1,370	1,280	1,490	1,310	575
21	0	0	0	0	0	0	654	1,360	1,310	1,470	1,330	532
22	0	0	0	0	0	0	811	1,360	1,350	1,460	1,390	506
23	0	0	0	0	0	0	961	1,390	1,360	1,450	1,400	514
24	0	0	0	0	0	0	1,040	1,440	1,280	1,410	1,380	532
25	0	0	0	0	0	0	1,040	1,460	1,130	1,390	1,330	542
26	0	0	0	0	0	0	1,090	1,440	1,010	1,390	1,300	549
27	0	0	0	0	0	0	1,140	1,450	931	1,370	1,290	575
28	0	0	0	0	0	0	1,200	1,460	919	1,370	1,240	633
29	0	0	0	0	-----	0	1,240	1,450	958	1,350	1,200	641
30	0	0	0	0	-----	0	1,240	1,400	1,070	1,330	1,130	646
31	0	-----	0	0	-----	0	-----	1,380	-----	1,310	1,060	-----
TOTAL	8,243	0	0	0	0	0	13,830	42,970	32,613	44,240	40,940	21,066
MEAN	266	0	0	0	0	0	461	1,386	1,087	1,427	1,321	702
MAX	596	0	0	0	0	0	1,240	1,460	1,360	1,490	1,400	1,060
MIN	0	0	0	0	0	0	0	1,310	752	1,190	1,060	506
AC-FT	16,350	0	0	0	0	0	27,430	85,230	64,690	87,750	81,200	41,780
CAL YR 1968: TOTAL	176,942.00			MEAN 483		MAX 1,470	MIN 0	AC-FT 351,000				
WTR YR 1969: TOTAL	203,902.00			MEAN 559		MAX 1,490	MIN 0	AC-FT 404,400				

SNAKE RIVER MAIN STEM

13-0810. Lake Walcott near Minidoka, Idaho

LOCATION.--Lat 42°40'15", long 113°29'00", near center of sec.1, T.9 S., R.25 E., Minidoka County, on south wall in powerhouse at Minidoka Dam on Snake River, 6 miles southeast of Minidoka, and at mile 675.0.

DRAINAGE AREA.--15,700 sq mi, approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--April 1909 to current year.

GAGE.--Nonrecording gage. Datum of gage is datum of Bureau of Reclamation, which is 49.52 ft below mean sea level.

EXTREMES.--Current year: Maximum contents, 100,100 acre-ft June 15, 16 (elevation, 4,244.41 ft); minimum, 32,700 acre-ft Dec. 12 (elevation, 4,239.30 ft).

Period of record: Maximum contents, 110,740 acre-ft Aug. 8, 1922 (elevation, 4,246.28 ft); minimum, -101,410 acre-ft Nov. 17, 1941 (elevation, 4,215.19 ft).

REMARKS.--Reservoir is formed by rock-fill dam with concrete core; storage began in 1906. Capacity, 107,240 acre-ft between elevations 4,236.00 ft (sill of powerhouse penstock) and 4,246.00 ft (top of flashboards). Dead storage below elevation 4,236.00 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 elevation 4,236.00 ft. Figures of daily contents computed from daily readings.

COOPERATION.--Daily elevations and capacity table furnished by Bureau of Reclamation.

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

4,239.0	29,600	4,244.0	83,500
4,240.0	40,000	4,246.0	107,200
4,242.0	61,300		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93,600	63,800	38,300	45,200	52,200	50,200	69,800	95,400	94,000	97,100	95,200	97,600
2	93,000	61,300	37,600	45,200	52,200	50,300	74,000	95,200	93,800	96,600	95,200	97,400
3	93,300	59,800	38,700	44,400	52,000	50,100	78,800	95,900	94,000	93,100	94,400	96,400
4	92,400	57,100	39,200	44,300	50,500	50,100	80,800	95,600	94,600	95,100	94,400	96,600
5	92,600	55,700	39,100	44,400	50,200	50,100	81,300	94,600	95,200	95,200	92,200	96,900
6	91,900	54,000	38,000	46,900	50,200	50,100	81,200	95,000	95,000	94,200	92,300	97,600
7	90,300	52,700	34,300	47,800	50,100	50,500	80,700	94,500	95,700	94,800	95,400	98,100
8	92,200	50,300	33,100	48,200	50,100	50,300	84,100	94,500	95,200	95,400	95,000	98,300
9	92,400	49,300	34,800	48,600	50,000	50,300	85,400	94,800	96,000	95,600	95,400	98,600
10	91,500	47,000	34,300	49,400	50,000	50,100	85,600	94,700	96,300	95,800	95,300	98,300
11	91,300	44,500	33,100	50,000	50,100	50,500	87,600	95,300	97,500	95,400	95,000	98,300
12	90,500	41,000	32,700	50,500	50,100	50,700	88,900	95,900	98,800	94,700	93,300	98,300
13	89,900	40,500	33,200	50,200	50,100	50,700	88,800	95,100	99,900	94,800	95,200	98,300
14	90,400	41,200	33,200	50,500	50,400	51,200	90,900	95,100	100,000	94,200	95,900	95,200
15	89,800	40,800	33,800	50,700	50,200	51,200	90,500	94,500	100,100	94,400	96,200	94,000
16	89,600	40,400	33,600	50,800	50,200	51,400	93,200	95,200	100,100	94,000	95,700	93,100
17	89,100	40,600	34,000	51,300	50,300	51,500	94,400	95,100	98,600	94,000	96,200	93,200
18	87,700	40,500	35,000	51,400	50,700	51,000	92,200	94,500	97,400	94,000	96,200	94,000
19	86,100	39,900	36,000	51,200	50,700	51,000	93,000	95,200	95,900	94,700	96,800	94,100
20	83,500	40,000	37,100	51,300	50,600	51,200	97,100	94,200	95,300	95,300	96,500	94,100
21	82,600	39,600	37,500	51,500	50,300	51,400	98,700	94,500	94,500	94,800	96,400	94,600
22	81,000	37,900	38,000	51,500	50,100	53,300	96,900	94,100	93,800	94,400	96,500	94,700
23	79,400	38,400	38,300	51,600	50,200	54,600	92,700	94,000	94,500	94,500	96,400	95,000
24	77,600	38,500	39,100	52,600	50,300	57,200	91,000	93,700	92,200	94,700	96,200	94,800
25	75,900	37,400	40,200	53,100	50,400	58,800	92,200	93,600	94,000	94,500	95,200	95,000
26	74,200	38,200	41,000	53,500	50,300	60,200	93,600	93,600	94,400	94,400	96,300	95,000
27	72,300	38,500	41,400	53,200	50,300	59,600	94,600	94,000	96,600	95,400	96,300	94,600
28	70,700	38,500	42,900	53,500	50,300	63,000	96,400	94,500	97,200	95,400	96,900	93,900
29	69,000	38,900	44,300	52,500	-----	66,300	93,800	94,400	97,400	96,300	96,500	93,900
30	66,600	38,100	45,900	52,000	-----	67,300	95,900	93,200	97,400	96,600	97,600	92,300
31	65,300	-----	45,600	52,100	-----	68,800	-----	93,600	-----	96,000	97,600	-----
(+)	4,242.37	4,239.82	4,240.53	4,241.15	4,240.98	4,242.68	4,245.06	4,244.86	4,245.18	4,245.07	4,245.20	4,244.75
(±)	-28,700	-27,200	+7,500	+6,500	-1,800	+18,500	+27,100	-2,300	+3,800	-1,400	+1,600	-5,300
MAX	93,600	63,800	45,900	53,500	52,200	68,800	98,700	95,900	100,100	97,100	97,600	98,600
MIN	65,300	37,400	32,700	44,300	50,000	50,100	69,800	93,200	92,200	93,100	92,200	92,300
CAL YR 1968:	MAX	101,450	MIN	32,700	±	+5,220						
WTR YR 1969:	MAX	100,100	MIN	32,700	±	-1,700						

† Elevation, in feet, at end of month.

± Change in contents, in acre-feet.

SNAKE RIVER MAIN STEM

125

13-0815. Snake River near Minidoka, Idaho

LOCATION.--Lat 42°40'23", long 113°29'58", in SW¼NE¼ sec.2, T.9 S., R.25 E., Minidoka County, on right bank 1 mile downstream from Minidoka Dam, 6 miles south of Minidoka, at mile 673.7.

DRAINAGE AREA.--15,700 sq mi, approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--August 1895 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "below Minidoka dam, at Howell's Ferry" 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, nonrecording gage at site 6 miles downstream at different datum. Apr. 21, 1910, to Aug. 28, 1911, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--43 years (1926-69), 5,728 cfs (4,150,000 acre-ft per year); 15-year base period (1952-67), 5,655 cfs.

EXTREMES.--Current year: Maximum discharge, 20,800 cfs Apr. 28 (gage height, 10.80 ft); minimum, 2,910 cfs Nov. 13 (gage height, 5.00 ft).
Period of record: Maximum discharge, 47,500 cfs May 29, 30, 1897 (gage height, 12.6 ft, former site and datum); minimum, 37 cfs Jan. 28, Feb. 4, 11, 18, 1962.

REMARKS.--Records good. Flow regulated by American Falls Reservoir (see sta 13-0765), Lake Walcott (see sta 13-0810) and other reservoirs, having a combined usable capacity of about 4,700,000 acre-ft; many diversions above station for irrigation.

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

REVISIONS (WATER YEARS).--WSP 1347: 1911.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5,510	3,990	3,220	5,700	10,200	8,380	11,700	17,400	8,680	7,090	9,320	8,320
2	5,580	4,050	3,290	6,100	10,000	8,380	10,300	17,000	8,710	7,910	9,380	8,020
3	5,260	4,100	3,280	6,430	9,660	8,350	6,970	17,200	8,530	8,830	9,660	8,050
4	5,120	4,180	3,280	5,770	8,830	8,350	4,760	17,200	7,510	8,860	9,660	8,000
5	5,170	4,030	3,280	5,820	8,380	8,440	4,680	15,900	7,590	8,950	9,750	8,000
6	5,140	4,050	3,310	6,830	8,260	8,500	4,780	15,200	8,410	9,350	9,570	7,910
7	5,260	4,030	3,290	7,450	8,320	8,440	4,580	14,000	8,380	9,190	9,470	7,790
8	4,740	4,030	3,290	8,210	8,290	8,380	3,370	12,600	8,410	8,890	9,500	7,680
9	3,930	4,380	3,580	7,960	8,350	8,350	3,310	11,300	8,290	8,830	9,440	7,530
10	3,350	4,070	4,160	8,440	8,320	8,260	3,330	9,190	8,230	8,710	9,380	7,340
11	3,280	4,050	4,330	8,800	8,290	8,470	3,280	8,590	7,790	8,830	9,220	7,230
12	3,290	4,240	4,490	8,950	8,350	8,590	3,260	9,720	7,760	9,130	9,350	7,140
13	3,350	3,220	4,470	8,920	8,650	8,470	3,350	9,410	7,710	9,380	9,010	6,970
14	3,310	3,150	4,400	9,040	8,470	8,530	3,260	8,770	7,310	9,410	9,010	6,970
15	3,510	3,170	4,330	9,100	8,410	8,620	3,310	8,890	7,420	9,630	9,100	6,690
16	3,380	3,170	4,400	9,130	8,440	8,650	3,630	8,470	7,760	9,790	9,290	6,580
17	3,290	3,100	4,420	9,260	8,440	8,710	4,340	8,350	7,510	9,600	9,260	6,580
18	3,400	3,200	4,510	9,320	8,620	8,500	4,730	8,350	7,530	9,470	9,100	6,470
19	3,370	3,150	4,380	9,690	8,680	8,650	4,580	8,260	7,910	9,500	8,830	6,310
20	3,420	3,170	4,400	9,540	8,680	8,500	6,780	8,380	8,230	9,540	8,620	6,230
21	3,460	3,200	4,540	9,570	8,560	8,440	11,300	8,320	8,380	9,690	8,500	6,120
22	3,530	3,190	4,630	9,630	8,500	9,260	16,800	8,350	8,530	9,690	8,500	5,820
23	3,510	3,150	4,630	9,630	8,500	10,600	17,400	8,440	8,380	9,600	8,620	5,630
24	3,510	3,260	4,560	10,300	8,500	11,800	15,900	8,560	8,500	9,600	8,620	5,630
25	3,530	3,260	4,440	10,600	8,590	12,600	15,800	8,590	7,880	9,660	8,920	5,530
26	3,580	3,190	4,470	10,900	8,500	12,800	16,800	8,680	7,420	9,720	8,950	5,370
27	3,530	3,200	4,600	10,700	8,440	11,100	18,100	8,770	6,500	9,600	8,980	5,240
28	3,490	3,200	4,880	10,600	8,380	9,540	20,200	8,770	6,420	9,290	8,950	5,220
29	3,510	3,290	5,800	10,400	-----	10,700	19,000	8,680	6,670	9,220	8,860	5,320
30	3,580	3,220	6,400	9,790	-----	11,500	17,500	8,800	6,720	9,100	8,620	5,500
31	3,510	-----	5,000	10,100	-----	12,400	-----	8,710	-----	9,220	8,440	-----
TOTAL	121,400	106,690	132,060	272,680	241,610	290,260	267,100	328,850	235,070	285,280	281,880	201,190
MEAN	3,916	3,556	4,260	8,796	8,629	9,363	8,903	10,610	7,836	9,203	9,093	6,706
MAX	5,580	4,380	6,400	10,900	10,200	12,800	20,200	17,400	8,710	9,790	9,750	8,320
MIN	3,280	3,100	3,220	5,700	8,260	8,260	3,260	8,260	6,420	7,090	8,440	5,220
AC-FT	240,800	211,600	261,900	540,900	479,200	575,700	529,800	652,300	466,300	565,800	559,100	399,100
CAL YR 1968: TOTAL	2,067,592			MEAN 5,649	MAX 18,100	MIN 103	AC-FT 4,101,000					
WTR YR 1969: TOTAL	2,764,070			MEAN 7,573	MAX 20,200	MIN 3,100	AC-FT 5,482,000					

MARSH CREEK BASIN

13-0823. Marsh Creek near Albion, Idaho

LOCATION.--Lat 42°27'20", long 113°31'10", in NE¼ sec.22, T.11 S., R.25 E., Cassia County, on left bank 750 ft upstream from concrete diversion dam and 5 miles northeast of Albion.

DRAINAGE AREA.--86 sq mi, approximately.

PERIOD OF RECORD.--September 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,500 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 102 cfs June 25 (gage height, 3.70 ft); minimum, 3.6 cfs Sept. 2, 3 (gage height, 2.17 ft).

Period of record: Maximum discharge, 146 cfs (revised) July 9, 1968 (gage height, 4.07 ft); minimum, 1.0 cfs Dec. 14, 1967 (corrected) (gage height, 2.00 ft).

REVISIONS.--The maximum discharge for the water year 1968 has been revised to 146 cfs July 9, 1968 (gage height, 4.07 ft), superseding figure published in WRD for Idaho 1968.

REMARKS.--Records good. Several small diversions for irrigation above station.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 4

Jan. 5 to Sept. 30

2.2	4.1	2.1	2.3	2.5	14
2.4	9.2	2.2	4.5	3.0	37
2.6	16	2.3	7.3	3.2	49

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	5.9	7.2	8.9	14	14	38	18	9.9	11	4.5	4.1
2	4.6	5.9	7.0	9.9	15	14	34	16	9.0	9.9	4.5	3.6
3	4.6	6.2	7.2	11	14	15	34	18	7.6	8.3	4.8	3.8
4	4.6	8.4	7.5	11	14	15	33	20	7.0	8.3	4.8	3.8
5	4.6	7.0	7.8	19	14	15	32	20	6.7	8.3	4.5	3.8
6	4.6	6.4	7.5	22	14	14	34	20	6.7	8.6	4.5	3.8
7	5.0	6.4	6.7	18	13	15	35	20	6.7	9.3	4.5	3.8
8	5.0	6.4	7.8	9.0	13	13	34	19	7.0	7.6	4.8	3.8
9	5.0	7.0	7.0	9.6	13	13	33	18	7.3	7.6	4.3	4.1
10	5.2	7.0	7.2	12	14	12	29	20	8.3	7.0	4.5	3.8
11	5.0	6.7	5.5	13	16	12	27	22	11	6.7	4.5	4.3
12	5.0	6.7	5.2	19	17	12	25	23	9.0	5.9	4.5	4.3
13	5.0	7.0	5.9	20	12	12	22	22	7.3	6.7	4.3	4.1
14	5.9	6.4	6.7	25	13	12	21	28	7.3	6.7	4.5	4.1
15	5.9	6.7	7.2	21	15	13	21	35	8.0	7.0	4.5	4.1
16	5.5	6.7	7.8	17	16	14	21	32	7.6	6.5	4.5	4.1
17	5.5	6.7	7.2	16	16	15	19	29	7.6	5.9	4.5	4.1
18	5.5	7.0	7.2	14	16	19	24	29	7.0	5.6	4.5	4.1
19	5.5	7.8	7.5	16	15	18	22	29	5.9	5.3	4.3	4.1
20	5.5	7.5	7.2	17	15	19	18	28	7.0	5.1	4.3	4.1
21	5.5	7.2	7.5	18	15	20	18	28	7.3	4.8	4.3	4.1
22	5.7	7.5	7.2	20	15	20	17	23	6.7	4.8	4.1	4.3
23	5.7	7.8	8.1	11	15	20	18	21	7.3	4.8	4.1	4.5
24	5.7	7.5	12	12	14	17	27	21	22	4.5	4.3	4.5
25	5.7	7.2	14	17	15	18	30	19	47	4.1	4.1	4.5
26	5.5	7.2	11	21	14	18	27	18	20	4.1	3.8	4.3
27	5.2	7.8	9.5	18	14	22	25	16	16	4.5	3.8	4.3
28	5.2	7.5	9.2	17	14	25	22	13	14	4.5	3.8	4.1
29	5.2	7.0	8.4	11	-----	29	18	12	14	5.1	3.8	4.3
30	5.7	8.1	8.1	12	-----	32	18	11	12	5.3	4.1	4.5
31	5.9	-----	8.6	14	-----	37	-----	11	-----	4.5	4.1	-----
TOTAL	163.1	210.6	243.9	479.4	405	544	776	659	320.2	198.3	134.4	123.2
MEAN	5.26	7.02	7.87	15.5	14.5	17.5	25.9	21.3	10.7	6.40	4.34	4.11
MAX	5.9	8.4	14	25	17	37	38	35	47	11	4.8	4.5
MIN	4.6	5.9	5.2	8.9	12	12	17	11	5.9	4.1	3.8	3.6
AC-FT	324	418	484	951	803	1,080	1,540	1,310	635	393	267	244

CAL YR 1968: TOTAL 2,963.6

MEAN 8.10

MAX 53

MIN 3.4

AC-FT 5,880

WTR YR 1969: TOTAL 4,257.1

MEAN 11.7

MAX 47

MIN 3.6

AC-FT 8,440

13-0825. Goose Creek above Trapper Creek, near Oakley, Idaho

LOCATION.--Lat 42°07'30", long 113°56'20", in sec.13, T.15 S., R.21 E., Cassia County, on right bank 0.2 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.

PERIOD OF RECORD.--April 1911 to September 1916, March 1919 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Altitude of gage is 4,770 ft (by barometer). Prior to Aug. 29, 1912, at site 200 ft downstream at different datum.

AVERAGE DISCHARGE.--55 years, 43.7 cfs (31,660 acre-ft per year); 15-year base period (1952-67), 38.0 cfs.

EXTREMES.--Current year: Maximum discharge, 225 cfs Apr. 26 (gage height, 3.50 ft); minimum, 3.9 cfs Aug. 30, 31 (gage height, 1.14 ft).

Period of record: Maximum discharge, 3,240 cfs Feb. 11, 1962 (gage height, 9.3 ft), from rating curve extended above 200 cfs on basis of slope-area measurement of peak flow; no flow July 22 to Aug. 10, Aug. 22-30, 1934, Aug. 15 to Oct. 3, 1935, July 22 to Sept. 25, 1940, Sept. 14, 1947.

REMARKS.--Records good except those for December and April, which are fair. Deeded 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. Pumps on four wells above and one below gage discharged into the channel during 1961-64. Pumps were not operated during the current year. Practically entire flow passing station is stored in Oakley Reservoir (sta. 13-0835).

REVISIONS.--WSP 1567: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 29 to Feb. 14; stage-discharge relation affected by ice Nov. 27 to Dec. 8, Dec. 12-13, 17-24, 27-28, 31, Jan. 8-11, Feb. 2-3)

1.1	3.3	2.5	86
1.3	6.8	3.0	153
1.5	12	3.5	241
2.0	36		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	18	25	28	21	33	110	139	28	28	12	4.2
2	14	18	23	28	20	36	125	135	28	25	11	4.4
3	14	19	22	30	20	42	160	135	30	21	10	4.6
4	14	20	20	36	20	43	180	139	27	20	9.7	4.9
5	14	20	22	43	17	40	190	140	22	16	9.2	5.1
6	14	20	21	40	18	36	190	133	19	14	8.9	5.3
7	14	20	21	33	23	33	190	131	21	14	8.5	5.1
8	14	20	21	28	24	31	180	133	21	15	8.2	5.3
9	15	21	21	20	22	29	160	145	17	15	8.0	5.9
10	15	23	29	16	23	27	140	142	18	15	7.8	7.8
11	15	31	23	14	25	27	130	140	31	13	7.5	6.7
12	15	33	21	22	33	27	135	138	30	12	7.3	7.3
13	15	30	20	43	54	27	160	138	32	11	7.3	7.1
14	17	27	16	43	66	27	165	139	26	11	7.1	6.8
15	18	26	17	40	39	31	175	139	25	11	6.8	6.5
16	19	26	25	33	34	50	170	129	25	11	6.5	6.3
17	18	26	25	29	33	84	145	117	24	11	6.1	6.3
18	18	27	25	20	35	103	145	103	22	10	6.1	6.5
19	18	28	25	22	41	159	145	95	23	13	6.1	6.5
20	17	28	24	24	40	150	145	86	20	12	6.5	7.3
21	17	28	24	39	39	118	145	44	19	12	6.3	8.2
22	17	27	23	90	43	124	145	80	20	12	5.9	9.2
23	17	28	24	58	39	122	158	71	21	11	5.5	9.4
24	17	27	26	26	36	90	185	62	29	11	5.1	11
25	17	27	29	21	36	53	207	55	47	12	4.9	10
26	17	24	30	28	36	60	221	48	52	12	4.6	9.2
27	17	24	31	35	32	82	199	42	52	11	4.4	8.9
28	17	25	31	39	31	105	174	36	40	11	4.2	8.7
29	17	25	29	24	-----	105	158	32	33	10	4.1	8.7
30	17	27	28	24	-----	105	146	28	31	20	4.1	9.4
31	18	-----	28	21	-----	105	-----	28	-----	15	4.1	-----
TOTAL	500	743	749	997	900	2,104	4,878	3,122	833	435	213.8	212.6
MEAN	16.1	24.8	24.2	32.2	32.1	67.9	163	101	27.8	14.0	6.90	7.09
MAX	19	33	31	90	66	159	221	145	52	28	12	11
MIN	14	18	16	14	17	27	110	28	17	10	4.1	4.2
AC-FT	992	1,470	1,490	1,980	1,790	4,170	9,680	6,190	1,650	863	424	422

CAL YR 1968 ÷ TOTAL 9,466.6 MEAN 25.9 MAX 113 MIN 3.2 AC-FT 18,780
WTR YR 1969 ÷ TOTAL 15,687.4 MEAN 43.0 MAX 221 MIN 4.1 AC-FT 31,120

GOOSE CREEK BASIN

13-0830. Trapper Creek near Oakley, Idaho

LOCATION.--Lat 42°10'10", long 113°58'20" (revised), in sec.34, T.14 S., R.21 E., Cassia County, 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.

PERIOD OF RECORD.--May 1911 to September 1916, March 1919 to current year. 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, Apr. 8, 1913, to Sept. 30, 1916, and Mar. 28, 1919, to Aug. 15, 1931, at site 1 mile upstream at different datum. Sept. 1, 1912, to Apr. 7, 1913, nonrecording gage at site 0.8 mile downstream at different datum.

AVERAGE DISCHARGE.--55 years, 14.3 cfs (10,360 acre-ft per year); 15-year base period (1952-67), 13.1 cfs.

EXTREMES.--Current year: Maximum discharge, 34 cfs Apr. 25 (gage height, 5.09 ft); minimum, 2.8 cfs Dec. 13 (gage height, 4.63 ft).

Period of record: Maximum discharge recorded, 270 cfs Aug. 17, 1941 (gage height, 6.99 ft) during cloud-burst, from rating curve extended above 100 cfs on basis of velocity-area studies and peak flow over weir (a higher flow may have occurred during cloudburst Aug. 15, 1931); minimum recorded, 2.0 cfs Dec. 9, 1966; minimum gage height, 4.59 ft Mar. 3, 1966.

REMARKS.--Records good. A few small diversions above station. Flow of artesian well, completed in 1936, enters above. Practically entire flow passing station is stored in Oakley Reservoir (see sta 13-0835).

REVISIONS. (WATER YEARS).--WSP 1063: 1941, 1943. WSP 1567: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

4.7	4.8
4.8	8.3
5.0	20
5.2	38

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	8.8	8.3	11	11	9.9	20	27	18	11	8.0	7.6
2	8.8	8.8	8.3	11	10	9.9	19	28	18	11	8.0	7.6
3	8.8	9.3	8.0	11	8.8	9.9	19	28	16	10	8.3	7.6
4	8.8	9.9	8.0	11	9.9	9.9	19	28	15	10	7.6	7.6
5	8.8	9.3	8.0	11	9.9	10	19	28	15	10	7.6	7.6
6	9.3	9.3	8.0	11	9.9	10	20	28	16	10	7.6	7.6
7	9.3	8.8	8.3	11	9.9	10	21	27	16	11	7.6	7.2
8	9.3	8.8	8.0	9.9	9.9	10	20	27	16	10	8.0	8.0
9	9.3	11	8.0	7.2	9.9	10	20	27	14	10	7.2	8.3
10	8.8	9.3	8.8	8.8	9.9	9.9	19	28	16	9.9	7.2	8.3
11	9.3	8.3	9.9	12	11	10	19	28	16	9.9	8.0	10
12	9.3	8.0	9.3	11	12	9.9	19	30	16	9.3	7.6	9.9
13	9.3	8.0	7.6	11	11	9.3	19	30	15	9.3	8.0	9.3
14	11	8.0	11	11	9.9	9.9	20	32	14	9.9	7.6	9.3
15	9.9	8.0	10	11	11	11	21	32	13	9.9	7.6	9.3
16	9.3	8.0	10	10	11	11	21	30	13	9.3	7.6	8.8
17	9.3	8.0	10	10	9.9	13	21	28	13	8.8	7.6	8.8
18	9.3	8.0	10	9.3	9.9	15	20	28	13	8.3	8.0	8.8
19	8.8	8.0	11	11	9.9	12	22	28	13	8.3	8.0	9.3
20	8.8	7.6	9.9	11	9.9	12	24	26	12	8.0	7.6	9.9
21	9.3	7.6	9.3	11	9.9	12	25	25	12	8.0	7.6	10
22	8.8	7.6	6.9	12	9.9	13	26	24	11	8.0	7.6	9.9
23	9.3	8.0	11	9.9	9.9	12	30	23	12	8.0	7.6	9.3
24	9.3	8.0	11	8.0	9.9	11	32	22	16	8.0	7.6	9.3
25	9.3	8.3	11	12	11	11	34	22	16	8.3	8.0	9.3
26	8.8	8.0	11	12	9.9	14	32	21	12	8.0	7.6	8.8
27	8.8	8.3	10	11	8.3	17	30	20	12	7.6	7.6	8.8
28	8.8	8.3	11	11	9.9	18	28	20	12	7.6	8.0	8.3
29	8.8	8.0	9.9	8.8	-----	18	28	18	11	8.0	8.0	8.3
30	9.3	8.3	7.2	9.9	-----	20	28	18	11	8.3	7.6	8.3
31	9.3	-----	11	9.3	-----	20	-----	18	-----	7.6	7.6	-----
TOTAL	284.6	253.6	289.7	325.1	283.3	378.6	695	799	423	281.3	239.5	261.1
MEAN	9.18	8.45	9.35	10.5	10.1	12.2	23.2	25.8	14.1	9.07	7.73	8.70
MAX	11	11	11	12	12	20	34	32	18	11	8.3	10
MIN	8.8	7.6	6.9	7.2	8.3	9.3	19	18	11	7.6	7.2	7.2
AC-FT	565	503	575	645	562	751	1,380	1,580	839	558	475	518

CAL YR 1968: TOTAL 3,715.9
WTR YR 1969: TOTAL 4,513.8

MEAN 10.2
MEAN 12.4

MAX 15
MAX 34

MIN 6.6
MIN 6.9

AC-FT 7,370
AC-FT 8,950

13-0835. Oakley Reservoir near Oakley, Idaho

LOCATION.--Lat 42°11'50", long 113°54'50", in sec.19, T.14 S., R.22 E., Cassia County, just upstream from right abutment of dam on Goose Creek, 4 miles southwest of Oakley, and at mile 26.0.

DRAINAGE AREA.--729 sq mi.

PERIOD OF RECORD.--October 1912 to current year.

GAGE.--Nonrecording gage. Altitude of gage is 4,630 ft (by barometer).

EXTREMES.--Current year: Maximum contents observed, 28,500 acre-ft Apr. 30, May 5 (gage height, 85.0 ft); minimum observed, 6,000 acre-ft Sept. 30 (gage height, 39.01 ft).

Period of record: 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, 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.

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

REVISIONS.--WSP 1567: Drainage area.

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

39.0	6,000	70.0	19,300
40.0	6,320	80.0	25,200
50.0	9,900	90.0	32,100
60.0	14,100		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	25,200	-	13,700	-
3	-	-	-	11,300	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	16,200	-	28,500	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	6,240	-	-	-	-	-	-	-	-	21,800	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	8,020	-	-	-	-	-	-	23,200	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	12,500	-
12	-	-	-	-	-	-	-	27,700	-	-	-	-
13	-	-	-	-	-	16,900	-	-	-	-	12,600	-
14	-	8,440	10,200	11,900	-	-	24,200	-	-	19,700	-	7,880
15	6,610	-	-	-	-	-	-	27,400	-	-	12,400	-
16	-	-	-	-	-	-	-	-	22,800	-	-	-
17	-	-	-	-	-	-	-	-	-	18,400	-	-
18	-	-	-	-	-	-	-	27,400	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	15,200	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	27,300	-	17,300	-	-
22	-	-	-	12,800	-	-	27,800	-	-	-	-	-
23	-	-	-	-	-	-	-	-	22,400	-	-	-
24	-	-	-	-	-	-	27,400	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	26,800	-	-	-	-
27	-	-	-	-	16,000	-	-	-	-	-	-	-
28	-	-	-	-	16,000	-	28,200	-	-	14,900	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	9,370	-	13,500	-	-	28,500	-	22,700	-	-	6,000
31	7,710	-	11,100	-	-	20,100	-	25,700	-	14,200	9,720	-
(†)	44.1	48.6	-	58.6	-	71.3	85.0	-	75.9	-	49.5	39.01
(‡)	+1,840	+1,660	+1,730	+2,400	+2,500	+4,100	+8,400	-2,800	-3,000	-8,500	-4,480	-3,720
MAX	7,710	9,370	11,100	13,500	16,000	20,100	28,500	28,500	25,200	21,800	13,700	7,880
MIN	-	-	-	-	-	-	-	-	-	-	-	-

CAL YR 1968..... ‡ +2,650
WTR YR 1969..... ‡ +130

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

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

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13-0858. P. A. lateral near Milner, Idaho

LOCATION.--Lat 42°32'10", long 113°58'20", in SE¼SE¼ sec.22, T.10 S., R.21 E., Jerome County, on left bank 600 ft downstream from pumping station and 2.8 miles northeast of Milner, and 9 miles west of Burley.

PERIOD OF RECORD.--October 1915 to current year. Monthly discharges only for some periods, published in WSP 1317.

GAGE.--Nonrecording gage read daily. Altitude of gage is 4,196 ft (river survey).

AVERAGE DISCHARGE.--21 years (1948-69), 25.6 cfs (18,550 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge observed, 78 cfs July 13, 1965, July 13, 1966, and July 14 to Aug. 4, 1967; no flow for many days each year.

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

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	0	0	0	0	0	0	49	60	55	74	62
2	48	0	0	0	0	0	0	58	62	58	68	62
3	0	0	0	0	0	0	0	58	65	60	68	62
4	0	0	0	0	0	0	0	58	63	64	68	62
5	0	0	0	0	0	0	0	58	63	63	66	62
6	0	0	0	0	0	0	0	58	63	63	66	62
7	0	0	0	0	0	0	0	58	63	63	66	62
8	0	0	0	0	0	0	0	63	63	63	66	62
9	0	0	0	0	0	0	0	63	64	63	66	60
10	0	0	0	0	0	0	0	66	64	63	64	56
11	0	0	0	0	0	0	0	66	64	66	64	53
12	0	0	0	0	0	0	0	66	64	67	64	53
13	0	0	0	0	0	0	0	66	62	68	64	53
14	0	0	0	0	0	0	0	66	63	70	66	53
15	0	0	0	0	0	0	0	66	63	70	66	53
16	0	0	0	0	0	0	0	66	63	70	66	52
17	0	0	0	0	0	0	0	66	59	70	66	52
18	0	0	0	0	0	0	0	66	59	70	66	51
19	0	0	0	0	0	0	0	66	59	71	66	51
20	0	0	0	0	0	0	0	66	61	71	66	51
21	0	0	0	0	0	0	0	69	61	71	66	51
22	0	0	0	0	0	0	0	68	61	74	66	50
23	0	0	0	0	0	0	0	67	62	74	66	50
24	0	0	0	0	0	0	7.0	67	62	74	65	50
25	0	0	0	0	0	0	22	67	62	74	66	50
26	0	0	0	0	0	0	38	66	59	74	65	46
27	0	0	0	0	0	0	36	66	59	74	65	46
28	0	0	0	0	0	0	36	66	59	74	65	46
29	0	0	0	0	-----	0	49	66	55	74	65	46
30	0	0	0	0	-----	0	49	66	55	74	65	46
31	0	-----	0	0	-----	0	-----	66	-----	74	63	-----
TOTAL	104	0	0	0	0	0	237.0	1,983	1,842	2,119	2,043	1,615
MEAN	3.35	0	0	0	0	0	7.90	64.0	61.4	68.4	65.9	53.8
MAX	56	0	0	0	0	0	49	69	65	74	74	62
MIN	0	0	0	0	0	0	0	49	55	55	63	46
AC-FT	206	0	0	0	0	0	470	3,930	3,650	4,200	4,050	3,200
CAL YR 1968: TOTAL	9,412.00			MEAN 25.7	MAX 75	MIN 0	AC-FT 18,670					
WTR YR 1969: TOTAL	9,943.00			MEAN 27.2	MAX 74	MIN 0	AC-FT 19,720					

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

13-0860. Milner low-lift canal near Milner, Idaho

LOCATION.--Lat 42°31'10", long 114°00'36", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.29, T.10 S., R.21 E., Twin Falls County, at head of canal, 0.6 mile east of Milner.

PERIOD OF RECORD.--October 1919 to current year. 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.--25 years (1944-69), 81.4 cfs (58,970 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 301 cfs July 16-18, 1964; no flow for many days each year.

REMARKS.--Records excellent. Flow controlled by pumping plant which lifts water from Snake River above Milner Dam for irrigation of 13,400 acres of land in Milner low-lift irrigation district. Pumps rated by current-meter measurements.

COOPERATION.--Record of pump operation furnished by Milner low-lift irrigation district.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	0	0	0	0	0	0	210	265	125	264	189
2	88	0	0	0	0	0	0	210	267	132	267	175
3	85	0	0	0	0	0	0	210	269	155	267	164
4	85	0	0	0	0	0	0	210	268	179	260	161
5	85	0	0	0	0	0	0	212	265	198	257	161
6	85	0	0	0	0	0	0	219	261	204	264	161
7	90	0	0	0	0	0	0	225	249	205	258	158
8	93	0	0	0	0	0	0	227	240	212	258	151
9	89	0	0	0	0	0	0	226	210	223	254	149
10	85	0	0	0	0	0	0	234	198	241	252	149
11	78	0	0	0	0	0	0	238	195	257	238	149
12	75	0	0	0	0	0	0	237	177	262	233	133
13	75	0	0	0	0	0	0	237	164	264	233	130
14	75	0	0	0	0	0	28	237	146	278	232	130
15	75	0	0	0	0	0	36	236	143	281	232	121
16	0	0	0	0	0	0	36	236	155	285	232	121
17	0	0	0	0	0	0	42	236	160	287	231	121
18	0	0	0	0	0	0	44	243	159	286	231	117
19	0	0	0	0	0	0	58	256	173	286	231	108
20	0	0	0	0	0	0	62	269	184	286	230	101
21	0	0	0	0	0	0	112	270	187	286	230	86
22	0	0	0	0	0	0	129	270	189	286	237	86
23	0	0	0	0	0	0	143	276	194	286	245	86
24	0	0	0	0	0	0	163	277	195	286	247	92
25	0	0	0	0	0	0	166	277	156	284	247	94
26	0	0	0	0	0	0	166	276	133	268	247	94
27	0	0	0	0	0	0	166	276	119	266	247	101
28	0	0	0	0	0	0	190	275	115	256	240	104
29	0	0	0	0	-----	0	187	271	114	256	227	124
30	0	0	0	0	-----	0	192	264	114	256	215	128
31	0	-----	0	0	-----	0	-----	263	-----	256	195	-----
TOTAL	1,261	0	0	0	0	0	1,920	7,603	5,664	7,632	7,501	3,844
MEAN	40.7	0	0	0	0	0	64.0	245	189	246	242	128
MAX	98	0	0	0	0	0	192	277	269	287	267	189
MIN	0	0	0	0	0	0	0	210	114	125	195	86
AC-FT	2,500	0	0	0	0	0	3,810	15,080	11,230	15,140	14,880	7,620
CAL YR 1968: TOTAL	31,768.00			MEAN 86.8		MAX 292	MIN 0	AC-FT 63,010				
WTR YR 1969: TOTAL	35,425.00			MEAN 97.1		MAX 287	MIN 0	AC-FT 70,260				

13-0865. Gooding Canal at Milner, Idaho

LOCATION.--Headgates of canal, lat 42°31'36", long 114°00'34", in SW¼NW¼ sec.28, T.10 S., R.21 E., Jerome County, at Milner Dam.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder on Milner-Gooding Canal at site 3.4 miles downstream from headgates. Nonrecording gage on A lateral 1.9 miles downstream from headgates and differential recorder on control gates of diversion 3.4 miles downstream from headgates.

AVERAGE DISCHARGE.--34 years (1935-69), total 1,025 cfs (742,600 acre-ft per year); Milner-Gooding project, 591 cfs; North Side Canal Co. project, 434 cfs.

EXTREMES.--Period of record: Maximum daily discharge, 2,770 cfs July 22, 1964, and July 18, 1967; no flow for many days.

REMARKS.--Records excellent. 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.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,130	940	240	0	0	0	0	1,830	2,300	2,260	2,550	2,390
2	2,130	940	0	0	0	0	0	2,040	2,300	2,260	2,550	2,370
3	2,130	940	0	0	0	0	0	2,110	1,450	2,320	2,560	2,370
4	2,130	970	0	0	0	0	0	2,120	1,030	2,390	2,570	2,370
5	2,130	990	0	0	0	0	0	2,120	1,040	2,410	2,570	2,370
6	2,130	990	0	0	0	0	0	2,110	1,590	2,410	2,580	2,330
7	2,140	990	0	0	0	0	0	2,110	2,470	2,400	2,580	2,310
8	2,130	990	0	0	0	0	0	2,130	2,470	2,400	2,600	2,310
9	2,130	980	0	0	0	0	0	2,230	2,480	2,400	2,600	2,260
10	1,810	980	0	0	0	0	0	2,280	2,480	2,390	2,600	2,230
11	1,140	990	0	0	0	0	0	2,280	2,480	2,390	2,600	2,230
12	1,240	990	0	0	0	0	0	2,280	2,490	2,400	2,560	2,230
13	1,310	820	0	0	0	0	0	2,290	2,490	2,400	2,540	2,230
14	1,350	790	0	0	0	0	0	2,290	2,490	2,510	2,500	2,240
15	1,300	780	0	0	0	0	0	2,300	2,490	2,520	2,480	2,230
16	1,210	750	0	0	0	0	0	2,300	2,400	2,520	2,480	2,220
17	1,190	750	0	0	0	0	0	2,300	2,330	2,520	2,480	2,180
18	1,060	750	0	0	0	0	570	2,300	2,330	2,520	2,480	2,130
19	990	760	0	0	0	0	960	2,270	2,330	2,530	2,470	2,120
20	990	730	0	0	0	0	850	2,280	2,330	2,530	2,400	2,110
21	990	720	0	0	0	0	880	2,280	2,320	2,530	2,380	2,110
22	990	710	0	0	0	0	1,030	2,290	2,320	2,530	2,420	2,100
23	980	720	0	0	0	0	1,090	2,280	2,300	2,530	2,430	2,100
24	980	720	0	0	0	0	1,270	2,280	2,280	2,530	2,430	2,090
25	980	710	0	0	0	0	1,380	2,290	2,290	2,520	2,430	2,050
26	980	720	0	0	0	0	1,390	2,290	2,280	2,530	2,430	2,030
27	980	720	0	0	0	0	1,390	2,290	2,270	2,520	2,430	2,030
28	980	710	0	0	0	0	1,390	2,290	2,270	2,520	2,430	2,020
29	980	710	0	0	-----	0	1,560	2,290	2,260	2,530	2,440	2,020
30	980	720	0	0	-----	0	1,750	2,290	2,250	2,550	2,440	2,020
31	960	-----	0	0	-----	0	-----	2,290	-----	2,550	2,440	-----
TOTAL	43,550	24,980	240	0	0	0	15,410	69,130	66,610	76,370	77,450	65,800
MEAN	1,405	833	7.74	0	0	0	514	2,230	2,220	2,464	2,498	2,193
MAX	2,140	990	240	0	0	0	1,750	2,300	2,490	2,550	2,600	2,390
MIN	960	710	0	0	0	0	0	1,830	1,030	2,260	2,380	2,020
AC-FT	86,380	49,550	476	0	0	0	30,570	137,100	132,100	151,500	153,600	130,500
(†)	32,570	13,390	159	0	0	0	16,010	76,820	72,970	94,930	95,390	75,870
(‡)	53,810	36,160	317	0	0	0	14,560	60,300	59,150	56,550	58,230	54,640
CAL YR 1968: TOTAL	453,100.00			MEAN 1,238	MAX 2,650	MIN 0		AC-FT 898,700				
WTR YR 1969: TOTAL	439,540.00			MEAN 1,204	MAX 2,600	MIN 0		AC-FT 871,800				

† To Milner-Gooding project, in acre-feet; total for water year, 478,100.

‡ To North Side Canal Co. project, in acre-feet; total for water year, 393,700.

LOCATION.--Lat 42°31'47", long 114°01'11", in NE¼NW¼ sec.29, T.10 S., R.21 E., Jerome County, on right bank 0.6 mile downstream from headwaters at Milner Dam and 0.8 mile north of Milner.

GAGE.--Water-stage recorder. Datum of gage is 4,123.4 ft above mean sea level. Prior to Apr. 1, 1916, non-recording gages at two sites within 0.5 mile of present site at slightly different datum.

EXTREMES.--Period of record: Maximum daily discharge, 3,240 cfs July 22, 1964; no flow at times when headgates were closed.

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

REVISIONS (WATER YEARS).--WSP 1347: 1912, 1917.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,370	0	0	0	0	0	361	2,190	2,640	2,400	2,920	2,620
2	1,370	0	0	0	0	0	440	2,190	2,640	2,520	2,900	2,580
3	1,370	0	0	0	0	0	425	2,180	2,640	2,590	2,930	2,530
4	1,360	0	0	0	0	0	452	2,180	2,640	2,590	2,980	2,530
5	1,310	0	0	0	0	0	526	2,180	2,640	2,660	2,960	2,510
6	1,300	0	0	0	0	0	590	2,190	2,640	2,720	2,960	2,480
7	1,280	0	0	0	0	0	740	2,430	2,640	2,720	2,940	2,400
8	1,140	0	0	0	0	0	810	2,430	2,640	2,720	2,920	2,350
9	1,140	0	0	0	0	0	796	2,370	2,660	2,700	2,930	2,370
10	1,040	0	0	0	0	0	768	2,360	2,640	2,690	2,930	2,340
11	834	0	0	0	0	0	810	2,350	2,550	2,800	2,900	2,270
12	800	0	0	0	0	0	926	2,390	2,550	2,920	2,860	2,130
13	772	0	0	0	0	0	1,210	2,400	2,460	2,920	2,870	2,130
14	386	0	0	0	0	0	1,230	2,410	2,310	2,910	2,850	2,110
15	0	0	0	0	0	0	1,190	2,390	2,280	2,980	2,860	2,040
16	0	0	0	0	0	0	1,240	2,390	2,280	3,000	2,880	1,960
17	0	0	0	0	0	0	1,300	2,470	2,270	2,980	2,900	1,850
18	0	0	0	0	0	0	1,320	2,110	2,330	2,960	2,840	1,740
19	0	0	0	0	0	0	1,430	2,610	2,450	2,980	2,790	1,740
20	0	0	0	0	0	0	1,600	2,550	2,500	2,990	2,790	1,660
21	0	0	0	0	0	0	1,810	2,510	2,550	2,980	2,800	1,470
22	0	0	0	0	0	0	1,880	2,500	2,590	2,970	2,800	1,470
23	0	0	0	0	0	0	1,910	2,500	2,650	2,960	2,790	1,450
24	0	0	0	0	0	0	1,880	2,600	2,640	2,960	2,780	1,430
25	0	0	0	0	0	0	1,920	2,650	2,590	2,960	2,780	1,380
26	0	0	0	0	0	0	1,870	2,650	2,580	2,940	2,790	1,170
27	0	0	0	0	0	0	1,870	2,650	2,460	2,950	2,750	1,160
28	0	0	0	0	0	33	1,860	2,660	2,340	2,950	2,740	1,150
29	0	0	0	0	-----	173	2,090	2,650	2,340	2,900	2,680	1,200
30	0	0	0	0	-----	246	2,180	2,640	2,320	2,900	2,680	1,200
31	0	-----	0	0	-----	258	-----	2,640	-----	2,910	2,640	-----
TOTAL	15,472	0	0	0	0	710	37,434	75,420	75,460	88,130	88,140	57,420
MEAN	499	0	0	0	0	22.9	1,248	2,433	2,515	2,843	2,843	1,914
MAX	1,370	0	0	0	0	258	2,180	2,660	2,660	3,000	2,980	2,620
MIN	0	0	0	0	0	0	361	2,110	2,270	2,400	2,640	1,150
AC=FT	30,690	0	0	0	0	1,410	74,250	149,600	149,700	174,800	174,800	113,900
CAL YR 1968: TOTAL	429,685.00			MEAN 1,174		MAX 3,080	MIN 0	AC=FT 852,300				

13-0875. South Side Twin Falls Canal at Milner, Idaho

LOCATION (revised).--Lat 42°31'19", long 114°00'59", in SW¼SE¼ sec.29, T.10 S., R.21 E., Twin Falls County, on right bank 30 ft upstream from highway bridge and 900 ft downstream from headgates at Milner Dam.

PERIOD OF RECORD.--May 1909 to current year. 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. Prior to May 13, 1913, nonrecording 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.--43 years (1926-69), 1,746 cfs (1,265,000 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 4,600 cfs Aug. 12, 1918, including about 1,200 cfs wasted through spillway below station and returned to river; maximum daily discharge for irrigation use, 3,970 cfs July 26, 1964; no flow Sept. 20, 1920, Oct. 14-17, 1956, Feb. 7-15, 1963, Jan. 11-17, Jan. 20 to Apr. 7, 1964, and Feb. 1-7, 1965.

REMARKS.--Records excellent except those below 20 cfs, which are fair. Flow controlled by headgates. Diversions began in March 1905 when 30,000 acres was reported as irrigated. By 1912 this had increased to 147,000 acres, and in 1965 the irrigated area was reported to be 203,000 acres.

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

REVISIONS (WATER YEARS).--WSP 1347: 1910-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,110	856	478	1.0	1.0	1.0	721	3,520	3,710	3,050	3,770	3,300
2	2,090	873	468	1.0	1.0	1.0	932	3,550	3,630	3,320	3,780	3,220
3	2,050	866	422	1.0	1.0	1.0	1,010	3,530	3,540	3,470	3,850	3,140
4	1,920	786	372	1.0	1.0	1.0	1,150	3,560	3,540	3,580	3,860	3,150
5	1,810	721	325	1.0	1.0	1.0	1,390	3,540	3,540	3,690	3,880	3,100
6	1,830	652	263	1.0	1.0	1.0	1,300	3,570	3,590	3,750	3,860	3,000
7	1,870	616	236	1.0	1.0	1.0	1,170	3,580	3,570	3,720	3,810	2,950
8	1,890	604	226	1.0	1.0	1.0	1,120	3,560	3,560	3,670	3,790	2,950
9	1,780	601	219	1.0	1.0	1.0	1,090	3,630	3,520	3,640	3,760	2,910
10	1,650	619	207	1.0	1.0	1.0	1,210	3,640	3,420	3,640	3,760	2,840
11	1,600	646	186	1.0	1.0	1.0	1,430	3,670	3,230	3,650	3,760	2,820
12	1,560	643	170	1.0	1.0	1.0	1,440	3,740	3,190	3,720	3,760	2,800
13	1,500	622	116	1.0	1.0	1.0	1,410	3,760	3,100	3,730	3,750	2,640
14	1,530	592	50	1.0	1.0	1.0	1,460	3,720	3,200	3,730	3,720	2,570
15	1,540	595	31	1.0	1.0	1.0	1,620	3,720	3,210	3,730	3,730	2,600
16	1,370	556	5.0	1.0	1.0	1.0	2,000	3,700	3,270	3,720	3,740	2,540
17	1,250	520	2.0	1.0	1.0	1.0	2,270	3,650	3,250	3,720	3,760	2,520
18	1,150	511	2.0	1.0	1.0	1.0	2,310	3,610	3,260	3,740	3,720	2,520
19	1,070	511	2.0	1.0	1.0	1.0	2,160	3,630	3,490	3,790	3,670	2,530
20	1,100	511	2.0	1.0	1.0	1.0	2,320	3,660	3,570	3,810	3,620	2,510
21	1,080	508	1.0	1.0	1.0	1.0	2,760	3,700	3,480	3,810	3,640	2,490
22	1,070	508	1.0	1.0	1.0	1.0	3,090	3,700	3,440	3,810	3,680	2,450
23	1,070	514	1.0	1.0	1.0	1.0	3,390	3,690	3,440	3,820	3,660	2,340
24	1,010	523	1.0	1.0	1.0	94	3,420	3,700	3,250	3,830	3,660	2,260
25	922	532	1.0	1.0	1.0	291	3,510	3,690	3,080	3,930	3,660	2,210
26	842	505	1.0	1.0	1.0	298	3,490	3,670	2,930	3,830	3,670	2,200
27	760	496	1.0	1.0	1.0	298	3,510	3,690	2,780	3,770	3,630	2,190
28	730	481	1.0	1.0	1.0	275	3,390	3,730	2,710	3,770	3,560	2,160
29	736	478	1.0	1.0	-----	330	3,380	3,720	2,770	3,750	3,460	2,080
30	778	481	1.0	1.0	-----	365	3,440	3,700	2,850	3,760	3,420	2,030
31	775	-----	1.0	1.0	-----	493	-----	3,710	-----	3,760	3,340	-----
TOTAL	42,443	17,927	3,793.0	31.0	28.0	2,467.0	62,893	113,240	99,120	114,610	114,730	79,020
MEAN	1,369	598	122	1.00	1.00	79.6	2,096	3,653	3,304	3,697	3,701	2,634
MAX	2,110	873	478	1.0	1.0	493	3,510	3,760	3,710	3,830	3,880	3,300
MIN	730	478	1.0	1.0	1.0	1.0	721	3,520	2,710	3,050	3,340	2,030
AC-FT	84,180	35,560	7,520	61	56	4,890	124,700	224,600	196,600	227,300	227,600	156,700
CAL YR 1968: TOTAL	632,630.0			MEAN 1,728		MAX 3,930	MIN 1.0	AC-FT 1,255,000				
WTR YR 1969: TOTAL	650,302.0			MEAN 1,782		MAX 3,880	MIN 1.0	AC-FT 1,290,000				

SNAKE RIVER MAIN STEM

13-0880. Snake River at Milner, Idaho

LOCATION.--Lat 42°31'41", long 114°01'04", in SW¼NE¼ sec.29, T.10 S., R.21 E., Twin Falls County, on left bank 200 ft downstream from highway bridge at Milner, 0.4 mile downstream from Milner Dam, at mile 639.70.

DRAINAGE AREA.--17,180 sq mi, approximately, excluding indeterminate nontributary area on Snake River Plain.

PERIOD OF RECORD.--May 1909 to current year. 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. Prior to May 28, 1919, nonrecording gages at slightly different sites and datums.

AVERAGE DISCHARGE.--43 years (1926-69), 2,001 cfs (1,450,000 acre-ft per year); 15-year base period (1952-67), 1,750 cfs.

EXTREMES.--Current year: Maximum discharge, 14,200 cfs Apr. 28 (gage height, 16.58 ft); minimum, 11 cfs July 12, 13, 14.

Period of record: 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, Aug. 9 to Sept. 7, 1961.

REMARKS.--Records good. Flow regulated by American Falls Reservoir (see sta 13-0765), Lake Walcott (see sta 13-0810), and other reservoirs having a combined usable capacity of about 4,700,000 acre-ft. About 1,340,000 acres of land irrigated by diversions from river and its tributaries above station, from which the return flow in large part enters Snake River between Milner and King Hill stations. Flow includes some stored water released for use downstream by Idaho Power Co.

COOPERATION.--Gage-height record furnished by Twin Falls Canal Co. and North Side Canal Co.

REVISIONS (WATER YEARS).--WSP 1347: 1909-12, 1915-16, 1942-44, 1946-48.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.6	10	3.5	219	8.0	3,400
2.0	26	4.0	350	11.0	6,490
2.5	60	5.0	726	14.0	10,200
3.0	124	6.0	1,400	17.0	15,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	403	2,860	2,860	6,270	9,050	8,450	10,600	9,740	27	14	205	310
2	407	2,830	3,040	7,010	9,410	8,530	9,500	9,350	27	12	201	310
3	410	2,790	3,310	7,100	10,400	8,530	7,000	9,350	38	12	201	301
4	410	2,890	3,470	6,600	9,900	8,400	3,160	9,380	430	13	201	301
5	407	3,040	3,610	6,380	9,380	8,400	1,070	8,920	27	13	201	301
6	114	3,010	3,660	6,690	9,360	8,350	1,340	7,650	27	13	203	307
7	17	3,010	3,540	7,300	9,020	8,740	1,400	6,250	27	14	203	307
8	18	3,010	3,400	6,820	8,960	8,610	1,450	4,700	30	16	203	313
9	19	2,840	3,440	6,860	8,530	8,660	2,090	2,990	31	16	205	307
10	100	3,080	3,900	7,760	8,620	8,410	1,960	1,770	21	15	205	304
11	421	3,240	4,220	9,020	8,480	8,490	1,800	370	21	13	205	304
12	417	3,190	4,410	9,880	8,450	8,690	1,560	293	16	11	203	307
13	407	3,420	4,280	10,400	9,340	8,760	1,070	210	17	11	203	307
14	646	3,130	4,200	9,730	8,820	8,630	1,130	140	15	11	205	307
15	1,100	2,690	5,160	9,400	8,670	8,740	467	108	12	12	205	307
16	1,390	2,410	5,320	9,390	8,490	8,820	264	115	12	142	203	307
17	1,820	2,390	4,410	9,360	8,630	8,820	261	114	12	205	203	307
18	2,080	2,360	4,020	9,490	8,730	8,580	264	148	13	203	205	310
19	2,180	2,350	4,290	9,380	8,710	8,560	269	78	12	203	205	310
20	2,090	2,330	3,550	9,640	8,800	8,910	1,210	35	12	203	203	307
21	2,070	2,300	4,630	9,660	8,790	8,740	4,620	36	12	203	203	307
22	2,040	2,230	4,770	9,700	8,630	8,530	9,440	36	12	203	203	310
23	2,030	2,260	5,040	9,700	8,570	8,400	12,100	38	14	203	203	307
24	2,100	2,230	5,440	9,760	8,540	10,600	9,640	39	15	205	203	304
25	2,290	2,170	5,420	11,300	8,790	11,700	8,270	39	19	208	194	304
26	2,200	2,380	5,300	11,300	8,710	12,400	9,600	39	22	210	194	304
27	2,210	2,360	5,140	11,200	8,600	12,700	10,800	21	41	205	198	301
28	2,210	2,300	5,060	10,900	8,540	11,000	13,300	18	17	210	268	299
29	2,190	2,280	5,130	10,000	-----	9,740	13,400	20	15	214	304	288
30	2,130	2,280	4,740	9,120	-----	10,600	10,400	18	15	210	313	290
31	2,680	-----	6,000	8,630	-----	11,200	-----	21	-----	205	310	-----
TOTAL	39,006	79,660	134,760	275,750	247,920	287,690	149,435	72,036	1,009	3,428	6,661	9,148
MEAN	1,258	2,655	4,347	8,895	8,854	9,280	4,931	2,324	33.6	111	215	305
MAX	2,680	3,420	6,000	11,300	10,400	12,700	13,400	9,740	430	214	313	313
MIN	17	2,170	2,860	6,270	8,340	8,350	261	18	12	11	194	288
AC-FT	77,370	158,000	267,300	546,900	491,700	570,600	296,400	142,900	2,000	6,800	13,210	18,140
CAL YR 1968: TOTAL	626,468.0			MEAN 1,712		MAX 10,700	MIN 7.0	AC-FT 1,243,000				
WTR YR 1969: TOTAL	1,306,503			MEAN 3,579		MAX 13,400	MIN 11	AC-FT 2,591,000				

13-0900. Snake River near Kimberly, Idaho

LOCATION.--Lat 42°35'28", long 114°21'34", in NE¼NW¼ sec.4, T.10 S., R.18 E., Twin Falls County, on left bank 1,200 ft downstream from Twin Falls powerplant, 2.2 miles upstream from Shoshone Falls, 4 miles north of Kimberly, and at mile 617.5.

PERIOD OF RECORD.--July 1923 to current year.

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.--46 years, 2,471 cfs (1,790,000 acre-ft per year); 15-year base period (1952-67), 2,121 cfs.

EXTREMES.--Current year: Maximum discharge, 14,500 cfs Apr. 29 (gage height, 16.79 ft); minimum, 87 cfs July 1 (gage height, 2.39 ft); minimum daily, 280 cfs May 28.

Period of record: Maximum discharge, 27,200 cfs June 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.--Records good. Flow regulated by American Falls Reservoir 96.5 miles upstream beginning in 1926 (see sta 13-0765) and other reservoirs having a combined usable capacity of 4,700,000 acre-ft. Diurnal fluctuation caused by hydroelectric powerplant 1,200 ft upstream. At times practically entire flow is diverted at Milner during irrigation season; no diversions between Milner and Kimberly. About 1,340,000 acres of land irrigated by diversions from river and its tributaries above station.

REVISIONS (WATER YEARS).--WSP 1347: 1924-26, 1928-30, 1942-44, 1946-48.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.3	80	8.0	1,840
2.5	99	10.0	3,400
3.0	159	12.0	5,750
4.0	332	15.0	10,700
6.0	925	17.0	15,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	876	3,240	2,930	6,430	9,230	8,720	11,200	10,000	369	399	602	744
2	876	3,140	3,290	7,100	9,700	8,750	10,000	9,510	362	391	609	733
3	888	3,130	3,540	7,380	10,500	8,780	7,750	9,540	373	389	617	736
4	886	3,140	3,680	6,900	10,300	8,650	4,510	9,540	400	401	624	736
5	873	3,380	3,800	6,540	9,590	8,660	1,650	9,380	770	392	615	731
6	641	3,340	3,910	6,830	9,610	8,580	1,410	7,940	424	418	623	741
7	517	3,330	3,840	7,560	9,340	8,960	1,860	6,840	390	431	622	741
8	482	3,330	3,760	7,080	9,250	8,840	1,490	5,100	395	408	618	742
9	495	3,230	3,680	6,580	8,870	8,870	2,410	3,640	424	407	615	749
10	489	3,310	3,930	7,670	8,850	8,650	2,360	2,550	416	403	619	747
11	547	3,490	4,430	9,120	8,750	8,730	2,110	1,340	436	408	625	758
12	871	3,500	4,460	9,950	8,700	8,890	1,970	807	405	390	617	742
13	865	3,620	4,550	10,700	8,550	9,000	1,610	629	403	397	626	748
14	874	3,520	4,440	10,000	9,030	8,870	1,500	521	383	402	627	735
15	1,470	3,100	5,310	9,640	8,940	8,930	1,200	470	385	398	627	758
16	1,630	2,780	5,570	9,550	8,750	9,000	688	450	396	403	617	763
17	2,030	2,720	4,840	9,630	8,820	8,980	556	405	382	475	626	745
18	2,380	2,700	4,200	9,640	8,910	8,930	607	425	396	588	637	739
19	2,600	2,670	4,940	9,630	8,910	8,650	552	484	369	588	632	747
20	2,560	2,650	3,510	9,820	9,000	9,090	587	440	383	593	635	757
21	2,490	2,640	4,920	9,930	9,000	8,910	3,840	379	388	593	629	746
22	2,460	2,610	4,920	9,890	8,850	8,780	8,510	370	379	589	626	746
23	2,420	2,620	5,170	10,000	8,800	9,070	12,400	379	413	590	622	753
24	2,400	2,630	5,580	9,510	8,780	11,400	10,400	362	421	608	621	751
25	2,660	2,500	5,650	11,400	8,910	12,100	8,730	370	429	595	625	745
26	2,620	2,620	5,530	11,600	8,940	12,600	9,380	381	414	613	625	744
27	2,620	2,650	5,370	11,500	8,820	12,500	10,700	342	407	606	626	743
28	2,620	2,610	5,240	11,200	8,800	10,400	13,000	280	421	623	631	739
29	2,610	2,620	5,430	10,400	-----	9,740	13,800	323	425	615	704	734
30	2,570	2,630	4,800	9,400	-----	10,600	10,900	360	408	622	741	736
31	2,790	-----	6,010	8,910	-----	11,300	-----	374	-----	615	741	-----
TOTAL	51,110	89,450	141,230	281,490	254,500	293,930	157,680	83,931	12,366	15,350	19,624	22,329
MEAN	1,649	2,982	4,556	9,080	9,089	9,482	5,256	2,707	412	495	633	744
MAX	2,790	3,620	6,010	11,600	10,500	12,600	13,800	10,000	770	623	741	763
MIN	482	2,500	2,930	6,430	8,550	8,580	552	280	362	389	602	731
AC-FT	101,400	177,400	280,100	558,300	504,800	583,000	312,800	166,500	24,530	30,450	38,920	44,290
CAL YR 1968: TOTAL	740,587		MEAN 2,023		MAX 11,300		MIN 307		AC-FT 1,469,000			
WTR YR 1969: TOTAL	1,422,990		MEAN 3,899		MAX 13,800		MIN 280		AC-FT 2,822,000			

BLUE LAKES SPRING BASIN

13-0910. Blue Lakes Spring near Twin Falls, Idaho

LOCATION.--Lat 42°36'53", long 114°28'06", in NE¼NW¼SE¼ sec.28, T.9 S., R.17 E., Jerome County, on left bank at outlet of upper Blue Lake, 1.2 miles northwest of Perrine Memorial Bridge, 3.5 miles north of Twin Falls, and 610.8 miles upstream from mouth of Snake River.

PERIOD OF RECORD.--April 1950 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,300 ft (from topographic map).

AVERAGE DISCHARGE.--19 years, 217 cfs (157,200 acre-ft per year); 15-year base period (1952-67), 216 cfs.

EXTREMES.--Period of record: Maximum daily discharge, 256 cfs Nov. 10, 11, 1951, Oct. 24 to Nov. 13, 1952, Sept. 29, 30, 1953, Oct. 23, 24, 1957; minimum daily, 178 cfs May 30 to June 6, 1965.

REMARKS.--Records good. No regulation or diversion above station. Records of chemical analysis for the water year 1969 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	220	212	205	205	205	205	202	196	199	208	212
2	216	220	212	205	205	205	205	202	196	202	208	212
3	216	220	212	205	205	205	205	202	196	202	208	212
4	216	220	212	205	205	205	205	202	196	199	205	212
5	216	224	212	205	205	205	205	202	196	202	205	212
6	216	220	212	205	205	202	205	205	196	202	205	212
7	216	220	212	205	205	202	205	202	196	202	205	208
8	216	220	208	202	202	202	205	202	196	205	208	208
9	216	220	208	202	202	202	205	202	199	205	208	208
10	216	220	208	202	202	202	205	202	199	205	208	212
11	216	220	208	202	202	202	208	202	196	205	208	212
12	220	220	208	202	202	202	208	202	196	205	208	212
13	224	220	208	202	202	202	205	202	196	208	208	212
14	224	220	208	205	202	202	205	202	196	205	205	212
15	224	220	208	205	202	202	205	202	196	205	205	212
16	224	216	208	205	205	202	205	202	196	205	208	212
17	224	216	205	205	205	202	205	199	196	205	208	212
18	224	216	205	205	205	202	205	199	196	205	208	216
19	224	216	205	205	205	202	205	199	199	205	208	216
20	224	216	205	205	205	202	205	199	199	205	208	216
21	224	216	205	205	205	205	205	199	199	205	208	216
22	220	212	205	205	205	205	208	199	199	205	208	216
23	220	212	205	205	205	205	208	196	196	208	208	216
24	220	212	208	208	205	205	208	196	196	208	208	216
25	220	216	208	208	205	205	208	196	196	205	208	216
26	220	216	208	208	205	205	205	196	196	205	208	216
27	220	216	208	208	205	205	202	196	199	205	208	216
28	220	216	208	208	205	205	202	196	199	205	212	216
29	220	212	205	205	-----	205	202	196	199	205	212	216
30	220	212	205	205	-----	205	202	196	199	208	212	216
31	224	-----	205	205	-----	205	-----	196	-----	208	212	-----
TOTAL	6,816	6,524	6,446	6,352	5,716	6,310	6,156	6,193	5,910	6,343	6,446	6,400
MEAN	220	217	208	205	204	204	205	200	197	205	208	213
MAX	224	224	212	208	205	205	208	205	199	208	212	216
MIN	216	212	205	202	202	202	202	196	196	199	205	208
AC-FT	13,520	12,940	12,790	12,600	11,340	12,520	12,210	12,280	11,720	12,580	12,790	12,690
CAL YR 1968 : TOTAL	76,139			MEAN 208	MAX 224	MIN 193	AC-FT 151,000					
WTR YR 1969 : TOTAL	75,612			MEAN 207	MAX 224	MIN 196	AC-FT 150,000					

ROCK CREEK BASIN

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13-0920. Rock Creek near Rock Creek, Idaho

LOCATION.--Lat 42°21'23", long 114°18'12", NW¼NW¼ sec.25, T.12 S., R.18 E., Twin Falls County, on right bank 0.1 mile downstream from road bridge, 0.8 mile downstream from Fifth 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.

PERIOD OF RECORD.--November 1909 to August 1913, November 1938 to July 1939, November 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,347.0 ft (levels by Topographic division). Nov. 20, 1943, to Sept. 30, 1963, at datum 1.00 ft higher. Nonrecording gage Nov. 28, 1909, to Aug. 16, 1913, at site 2 miles downstream at different datum and Nov. 23, 1938, to July 21, 1939, at present site at datum 2.25 ft higher.

AVERAGE DISCHARGE.--27 years (1910-12, 1944-69), 31.4 cfs (22.750 acre-ft per year); 15-year base period (1952-67), 27.5 cfs.

EXTREMES.--Current year: Maximum discharge, 241 cfs Apr. 24 (gage height, 3.07 ft); minimum discharge, 4.8 cfs Aug. 27, 28, 30, 31, Sept. 1, 2; minimum gage height, 1.05 ft Sept. 1, 2.
Period of record: Maximum discharge, 429 cfs May 17, 1964 (gage height, 3.47 ft), but may have been more May 21, 1912; minimum, 2.7 cfs July 23, 1961 (gage height, 0.76 ft, present datum).

REMARKS.--Records good. Small ranch diversion above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.0	3.8	1.7	36
1.1	5.7	2.0	62
1.2	8.5	2.5	127
1.3	12	3.0	224
1.5	23	3.1	248

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	8.9	12	9.0	18	15	64	119	36	20	7.1	5.1
2	8.5	8.9	12	10	17	14	76	117	34	18	7.1	4.9
3	8.2	9.6	11	11	16	14	88	114	33	17	6.5	5.3
4	8.2	12	11	12	15	14	93	110	32	17	6.5	5.5
5	8.2	10	11	14	16	14	105	105	29	16	6.3	5.7
6	8.2	9.6	11	17	15	14	134	107	29	17	6.3	6.0
7	8.2	9.6	10	17	15	14	130	113	29	17	6.0	5.7
8	8.5	9.6	11	15	14	14	113	117	29	16	5.5	5.5
9	8.5	19	10	12	14	13	103	119	28	15	5.5	5.7
10	8.5	18	10	15	14	12	101	117	32	14	5.5	5.7
11	8.5	15	11	18	14	13	104	116	32	13	5.5	6.8
12	8.5	14	10	18	14	13	111	113	28	12	5.7	6.8
13	8.9	13	9.3	17	15	12	127	108	28	12	6.0	6.5
14	9.6	12	10	20	14	12	129	104	24	12	5.7	6.3
15	9.6	13	10	20	16	13	124	100	23	12	6.0	6.3
16	9.3	13	11	20	16	13	111	93	23	11	6.0	6.3
17	8.9	12	10	19	15	13	107	84	23	11	5.7	6.0
18	8.9	12	9.6	17	15	15	116	79	20	9.6	5.3	5.7
19	8.9	13	10	18	15	16	111	75	20	8.9	5.1	6.3
20	8.9	13	9.3	18	15	16	116	70	20	7.9	5.5	7.4
21	8.9	13	8.9	19	15	17	125	65	19	7.9	5.7	7.9
22	8.9	14	8.8	22	15	18	158	61	19	7.7	5.7	7.4
23	8.9	14	10	17	14	20	211	57	19	7.7	5.5	6.3
24	8.9	13	15	16	15	20	231	54	37	7.7	5.3	6.3
25	8.9	13	12	23	15	20	211	51	40	8.2	5.5	6.0
26	8.9	13	12	21	14	21	175	48	30	7.9	5.7	6.0
27	8.9	13	11	20	13	24	149	47	26	7.4	5.3	5.5
28	8.9	12	11	18	15	28	134	46	25	7.1	5.1	5.7
29	8.9	12	10	16	-----	34	124	42	24	7.4	5.1	6.0
30	9.6	12	7.7	15	-----	41	119	39	21	7.7	4.9	6.5
31	9.6	-----	7.9	17	-----	53	-----	38	-----	7.4	4.9	-----
TOTAL	272.8	374.2	323.5	521.0	419	570	3,800	2,628	812	360.5	177.5	183.1
MEAN	8.80	12.5	10.4	16.8	15.0	18.4	127	84.8	27.1	11.6	5.73	6.10
MAX	9.6	19	15	23	18	53	231	119	40	20	7.1	7.9
MIN	8.2	8.9	7.7	9.0	13	12	64	38	19	7.1	4.9	4.9
AC-FT	541	742	642	1,030	831	1,130	7,540	5,210	1,610	715	352	363
CAL YR 1968: TOTAL	5,809.3			MEAN 15.9		MAX 39		MIN 6.3		AC-FT 11,520		
WTR YR 1969: TOTAL	10,441.6			MEAN 28.6		MAX 231		MIN 4.9		AC-FT 20,710		

PEAK DISCHARGE (BASE, 130 CFS).--Apr. 6 (1900) 139 cfs (2.56 ft); Apr. 24 (0300) 241 cfs (3.07 ft).

LOCATION.--Lat 42°39'46", long 114°40'24", in NW¼SW¼NW¼ sec.11, T.9 S., R.15 E., Gooding County, in spring outlet channel 120 ft upstream from mouth, 880 ft downstream from source, 6 miles northeast of Buhl, and 559.1 miles upstream from mouth of Snake River.

GAGE.--Water-stage recorder. Altitude of gage is 3,000 ft (from topographic map). Prior to July 26, 1966, at site 180 ft upstream at datum 3.19 ft higher.

EXTREMES.--Period of record: Maximum daily discharge, 355 cfs (estimated) Oct. 1-10, 1958; minimum daily, 198 cfs May 24, 25, June 4-6, 1964.

REMARKS.--Records good. Figures of daily discharge do not include discharge in the diversions between springs and gage.

[illegible]

13-0940. Snake River near Buhl, Idaho

LOCATION.--Lat 42°39'58", long 114°42'41", in NW¼NW¼ sec.9, T.9 S., R.15 E., Twin Falls County, on left bank, 2 miles downstream from Niagara Springs, 3.8 miles upstream from outlet of Clear Lakes, 6 miles northeast of Buhl, and at mile 597.2.

PERIOD OF RECORD.--December 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,951.9 ft above mean sea level (stadia levels). Jan. 17, 1947, to July 12, 1965, at datum 1.00 ft higher. Prior to Jan. 17, 1947, nonrecording gage at datum 1.0 ft higher.

AVERAGE DISCHARGE.--22 years, 4,407 cfs (3,193,000 acre-ft per year); 15-year base period (1952-67), 3,866 cfs.

EXTREMES.--Current year: Maximum discharge, 16,300 cfs Apr. 29 (gage height, 9.07 ft); minimum, 1,940 cfs May 29 (gage height, 1.45 ft).

Period of record: Maximum discharge, 23,700 cfs June 24, 1964 (gage height, 11.54 ft, present datum); minimum, 1,580 cfs Mar. 28, 1963 (gage height, 0.83 ft, present datum).

REMARKS.--Records excellent. Flow regulated by American Falls Reservoir 116.8 miles upstream (see sta 13-0765). Diurnal fluctuation caused by hydroelectric plants upstream. No diversion except by small ranch ditches between this station and station at Milner, where at times practically entire flow is diverted during irrigation seasons.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 7 to Sept. 26)

1.4	1,910
2.0	2,380
4.0	4,760
6.0	8,500
8.0	13,400
9.0	16,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,060	5,190	4,430	7,890	10,700	10,200	12,900	12,200	2,130	2,320	2,400	2,690
2	3,020	5,110	5,050	8,390	11,200	10,200	11,900	11,400	2,160	2,250	2,420	2,680
3	2,980	5,170	5,140	9,010	11,800	10,300	10,100	11,600	2,150	2,210	2,410	2,670
4	3,020	5,170	5,340	8,600	12,200	10,100	7,120	11,600	2,130	2,250	2,430	2,690
5	3,050	5,300	5,510	8,120	11,300	10,100	3,680	11,500	2,250	2,260	2,420	2,720
6	3,020	5,290	5,560	8,220	11,200	10,000	3,050	10,000	2,400	2,360	2,420	2,710
7	2,850	5,250	5,580	8,940	11,000	10,300	3,340	9,090	2,210	2,500	2,430	2,700
8	2,740	5,230	5,480	8,900	10,800	10,300	3,360	6,960	2,220	2,450	2,420	2,730
9	2,690	5,280	5,300	8,150	10,500	10,300	3,520	5,570	2,300	2,410	2,430	2,710
10	2,680	5,080	5,450	8,940	10,300	10,100	3,970	4,260	2,320	2,350	2,420	2,690
11	2,660	5,330	6,010	10,400	10,300	10,100	3,770	3,440	2,440	2,320	2,420	2,710
12	2,780	5,460	6,060	11,400	10,200	10,200	3,630	2,700	2,330	2,250	2,390	2,740
13	3,010	5,370	6,140	12,300	10,100	10,400	3,370	2,420	2,260	2,220	2,420	2,750
14	3,070	5,560	6,050	12,000	10,500	10,300	3,020	2,190	2,240	2,250	2,410	2,760
15	3,240	5,170	6,620	11,400	10,500	10,300	2,980	2,120	2,220	2,250	2,400	2,800
16	3,620	4,770	7,160	11,200	10,300	10,400	2,640	2,010	2,260	2,240	2,410	2,830
17	3,900	4,570	6,710	11,300	10,300	10,400	2,200	2,030	2,240	2,240	2,410	2,790
18	4,330	4,540	5,920	11,300	10,400	10,400	2,140	2,030	2,180	2,340	2,460	2,780
19	4,630	4,510	6,400	11,300	10,400	9,940	2,190	2,070	2,150	2,410	2,460	2,790
20	4,650	4,460	5,370	11,400	10,500	10,500	2,120	2,120	2,180	2,440	2,440	2,940
21	4,560	4,440	6,060	11,600	10,500	10,400	3,500	2,080	2,270	2,460	2,430	3,060
22	4,520	4,440	6,360	11,500	10,400	10,200	8,190	2,030	2,260	2,440	2,430	3,050
23	4,430	4,380	6,650	11,600	10,300	10,100	14,100	2,010	2,240	2,430	2,450	3,020
24	4,400	4,410	7,140	11,100	10,300	12,500	12,800	2,000	2,470	2,440	2,440	3,010
25	4,540	4,350	7,320	12,600	10,300	13,400	11,000	2,000	2,720	2,430	2,460	2,990
26	4,590	4,310	7,190	13,400	10,500	14,000	11,000	2,020	2,680	2,440	2,460	2,950
27	4,540	4,410	6,960	13,100	10,300	14,200	12,500	2,010	2,610	2,460	2,490	2,930
28	4,560	4,360	6,820	12,900	10,300	12,400	14,500	1,990	2,520	2,480	2,510	2,900
29	4,570	4,360	6,950	12,300	-----	11,000	15,900	1,960	2,430	2,450	2,520	2,900
30	4,540	4,420	6,420	11,100	-----	11,900	13,500	2,010	2,410	2,430	2,600	2,880
31	4,520	-----	7,100	10,600	-----	12,600	-----	2,110	-----	2,420	2,660	-----
TOTAL	114,770	145,690	190,250	330,960	297,400	337,540	207,990	139,530	69,380	73,200	75,870	84,570
MEAN	3,702	4,856	6,137	10,680	10,620	10,890	6,933	4,501	2,313	2,361	2,447	2,819
MAX	4,650	5,560	7,320	13,400	12,200	14,200	15,900	12,200	2,720	2,500	2,660	3,060
MIN	2,660	4,310	4,430	7,890	10,100	9,940	2,120	1,960	2,130	2,210	2,390	2,670
AC-FT	227,600	289,000	377,400	656,400	589,900	669,500	412,500	276,800	137,600	145,200	150,500	167,700
CAL YR 1968: TOTAL	1,387,230			MEAN 3,790	MAX 13,300	MIN 1,850	AC-FT 2,752,000					
WTR YR 1969: TOTAL	2,067,150			MEAN 5,663	MAX 15,900	MIN 1,960	AC-FT 4,100,000					

BOX CANYON SPRINGS BASIN

13-0955. Box Canyon Springs near Wendell, Idaho

LOCATION.--Lat 42°42'25", long 114°48'45", in NW¼SE¼NE¼ sec.27, T.8 S., R.14 E., Gooding County, on left bank 150 ft downstream from waterfall, at mile 0.5, 0.7 mile downstream from source, 7.5 miles southwest of Wendell, and 588.8 miles upstream from mouth of Snake River.

PERIOD OF RECORD.--April 1950 to current year.

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

AVERAGE DISCHARGE.--19 years, 408 cfs (295,600 acre-ft per year); 15-year base period (1952-67), 407 cfs.

EXTREMES.--Period of record: Maximum daily discharge, 483 cfs Oct. 9, 14, 15, 18, 19, 1965; minimum daily, 346 cfs Jan. 10, 1962.

REMARKS.--Records excellent. No regulation or surface diversion above station. Discharge affected by variable surface waste from irrigation, which flows over rimrocks into springs above station. Waste flow estimated Oct. 4 (1.0 cfs); Dec. 13 (0.1 cfs); Apr. 24 (3.0 cfs); June 2 (3.0 cfs); June 21 (2.0 cfs); Aug. 19 (1.0 cfs); Sept. 10 (0.5 cfs); no waste flow Nov. 5, Jan. 25, Mar. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	445	432	412	402	402	382	372	374	390	422	422	432
2	445	432	412	402	400	380	372	372	392	422	420	435
3	445	432	410	402	400	380	372	374	392	420	420	437
4	445	432	410	402	397	380	372	374	394	420	422	437
5	445	432	407	402	400	377	372	377	394	420	422	435
6	445	432	404	404	400	377	374	377	397	420	420	435
7	448	432	404	404	397	374	374	374	400	420	422	435
8	448	430	402	402	394	374	372	374	404	417	422	435
9	448	432	402	402	394	374	372	372	404	417	422	437
10	448	430	402	404	394	372	372	374	407	420	424	437
11	448	430	402	404	394	372	372	374	410	420	424	435
12	450	430	402	404	394	372	374	374	410	420	424	437
13	448	427	400	402	394	372	374	377	410	417	424	437
14	448	427	402	402	394	374	372	377	410	417	424	440
15	448	427	402	402	392	374	372	380	410	417	424	440
16	448	427	404	402	392	374	370	382	412	417	424	440
17	445	424	404	400	387	374	370	382	414	417	424	443
18	448	422	402	402	384	377	372	384	414	417	427	443
19	445	420	402	404	384	377	370	384	414	417	427	443
20	445	420	404	404	384	377	370	384	414	414	427	443
21	443	420	404	402	384	377	372	384	414	417	427	443
22	440	417	402	400	384	377	374	384	414	417	427	443
23	440	414	402	402	384	377	374	384	414	417	430	443
24	440	417	404	402	382	374	377	387	414	420	430	443
25	440	417	404	402	382	372	374	387	420	420	427	443
26	437	414	404	407	382	372	374	390	420	422	430	443
27	435	414	404	404	382	374	374	390	420	422	430	443
28	435	412	404	404	382	372	374	390	422	422	432	443
29	435	412	404	404	-----	372	374	387	420	422	432	443
30	435	414	404	402	-----	372	374	390	420	422	432	443
31	435	-----	402	402	-----	372	-----	390	-----	422	432	-----
TOTAL	13,750	12,721	12,527	12,483	10,939	11,624	11,181	11,803	12,270	12,994	13,154	13,186
MEAN	444	424	404	403	391	375	373	381	409	419	426	440
MAX	450	432	412	407	402	382	377	390	422	422	432	443
MIN	435	412	400	400	382	372	370	372	390	414	420	432
AC-FT	27,270	25,230	24,850	24,760	21,700	23,060	22,180	23,410	24,340	25,770	26,170	26,150
CAL YR 1968: TOTAL	147,588			MEAN 403	MAX 450	MIN 357	AC-FT 292,700					
WTR YR 1969: TOTAL	148,672			MEAN 407	MAX 450	MIN 370	AC-FT 294,900					

SALMON FALLS CREEK BASIN

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13-1050. Salmon Falls Creek near San Jacinto, Nev.

LOCATION.--Lat 41°56'40", long 114°41'15", in NE¼SW¼ sec.23, T.47 N., R.64 E., Elko County, on right bank in canyon, 630 ft downstream from bridge on U.S. Highway 93, 550 ft downstream from Shoshone Creek, and 5 miles north of San Jacinto.

DRAINAGE AREA.--1,450 sq mi, approximately. Mean altitude, 6,350 ft.

PERIOD OF RECORD.--September 1909 to June 1910 (gage heights only), June 1910 to September 1916, October 1918 to current year. Monthly discharge only for some periods published in WSP 1317. Prior to October 1910, published as Salmon Falls "River."

GAGE.--Water-stage recorder. Altitude of gage is 5,120 ft (by barometer). Prior to June 6, 1910, nonrecording gage at nearby site at different datum. June 6, 1910, to Sept. 30, 1916, Oct. 1, 1918, to Aug. 28, 1964, water-stage recorder at site 35 ft upstream at same datum.

AVERAGE DISCHARGE.--57 years (1910-16, 1918-69), 132 cfs (95,630 acre-ft per year); 15-year base period (1952-67), 123 cfs.

EXTREMES.--Current year: Maximum discharge, 923 cfs Apr. 5, 6 (gage height, 7.76 ft); minimum, 10 cfs Aug. 22 (gage height, 3.99 ft).
Period of record: Maximum discharge, 1,970 cfs Feb. 12, 1962 (gage height, 12.65 ft, from floodmark), from rating extended above 900 cfs on basis of contracted-opening measurement of peak flow, but may have been exceeded by peak of Feb. 24, 1943; minimum, 2.6 cfs Sept. 4, 1961 (gage height, 3.37 ft).

REMARKS.--Records good except those for July 1 to Aug. 22, which are fair. Many diversions above station for irrigation. Salmon Dam of Salmon River Canal Co. is 15 miles downstream (sta. 13-1065).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	50	59	62	77	70	743	475	275	167	49	15
2	39	50	58	64	71	71	717	477	263	150	45	15
3	38	51	56	66	69	70	760	482	242	131	45	15
4	38	54	56	69	64	71	816	487	218	120	44	21
5	39	55	59	71	72	69	800	445	195	115	43	29
6	39	53	58	71	80	69	850	412	192	118	43	29
7	39	52	58	72	77	69	852	431	177	139	39	30
8	39	52	58	66	71	68	672	485	171	152	35	30
9	41	53	58	45	75	67	580	538	168	146	32	30
10	42	54	58	55	77	67	539	594	177	137	31	33
11	42	58	59	67	81	66	556	618	240	117	31	36
12	45	60	53	73	79	66	614	443	255	101	32	37
13	45	60	40	75	81	66	645	652	233	96	30	37
14	48	58	45	78	71	67	700	672	282	88	29	36
15	49	57	59	79	74	69	710	675	218	82	27	36
16	48	56	60	77	75	73	629	635	227	80	24	36
17	48	57	54	71	73	81	557	580	223	84	22	36
18	48	57	50	69	72	112	547	546	204	82	21	36
19	47	59	52	79	73	115	572	546	186	79	19	38
20	47	60	41	81	73	110	543	532	185	77	16	43
21	47	61	40	105	73	127	557	484	186	75	14	47
22	47	61	32	130	73	155	614	445	191	72	12	47
23	47	61	45	98	71	195	722	429	172	68	11	45
24	46	62	56	82	71	112	825	410	173	66	11	42
25	47	62	61	101	74	104	841	406	218	68	13	41
26	48	58	61	102	72	158	744	403	241	67	12	41
27	47	58	58	96	68	366	628	395	228	59	12	41
28	47	57	56	92	68	528	548	375	199	56	12	40
29	48	54	53	82	-----	703	501	346	183	55	13	40
30	51	59	51	71	-----	764	475	312	178	53	14	41
31	54	-----	51	69	-----	783	-----	285	-----	53	14	-----
TOTAL	1,389	1,699	1,655	2,418	2,055	5,511	19,857	15,215	6,300	2,953	795	1,043
MEAN	44.8	56.6	53.4	78.0	73.4	178	662	491	210	95.3	25.6	34.8
MAX	54	62	61	130	81	783	852	675	282	167	49	47
MIN	38	50	32	45	64	66	475	285	168	53	11	15
AC-FT	2,760	3,370	3,280	4,800	4,080	10,930	39,390	30,180	12,500	5,860	1,580	2,070

CAL YR 1968: TOTAL 28,454

MEAN 77.7

MAX 310

MIN 23

AC-FT 56,440

WTR YR 1969: TOTAL 60,890

MEAN 167

MAX 852

MIN 11

AC-FT 120,800

SALMON FALLS CREEK BASIN

13-1060. Salmon River Canal Co. canal near Rogerson, Idaho

LOCATION (revised).--Lat 42°13'10", long 114°44'20", in sec.7, T.14 S., R.15 E., Twin Falls County, on left bank 0.5 mile downstream from Salmon River Canal Co. reservoir and 7 miles west of Rogerson.

PERIOD OF RECORD.--April 1937 to current year.

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

AVERAGE DISCHARGE.--32 years, 101 cfs (73,170 acre-ft per year); 15-year base period (1952-67), 94.0 cfs.

EXTREMES.--Period of record: Maximum daily discharge, 660 cfs July 21-24, 1944; no flow for long periods in each year.

REMARKS.--Records excellent. Canal diverts from Salmon River Canal Co. reservoir (see sta 13-1065) for irrigation of land in Salmon River Canal Co. project.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	252	412	0	380	0
2	0	0	0	0	0	0	0	282	408	190	360	0
3	0	0	0	0	0	0	0	277	404	238	352	0
4	0	0	0	0	0	0	0	286	408	241	332	0
5	0	0	0	0	0	0	0	303	407	306	324	0
6	0	0	0	0	0	0	0	324	405	321	316	0
7	0	0	0	0	0	0	0	341	402	372	325	0
8	0	0	0	0	0	0	0	359	393	379	327	0
9	0	0	0	0	0	0	0	380	371	376	334	0
10	0	0	0	0	0	0	0	393	342	380	336	0
11	0	0	0	0	0	0	0	391	311	373	334	0
12	0	0	0	0	0	0	0	397	308	382	342	0
13	0	0	0	0	0	0	0	397	252	414	346	0
14	13	0	0	0	0	0	0	390	244	414	345	0
15	100	0	0	0	0	0	0	385	226	426	348	0
16	130	0	0	0	0	0	0	368	218	435	345	0
17	37	0	0	0	0	0	0	353	208	437	351	0
18	0	0	0	0	0	0	0	346	220	435	356	159
19	0	0	0	0	0	0	0	357	242	432	357	173
20	0	0	0	0	0	0	0	355	238	427	353	163
21	0	0	0	0	0	0	0	352	243	421	363	159
22	0	0	0	0	0	0	0	356	248	417	371	158
23	0	0	0	0	0	0	0	368	254	417	376	158
24	0	0	0	0	0	0	0	382	188	421	381	167
25	0	0	0	0	0	0	0	390	0	410	388	163
26	0	0	0	0	0	0	0	406	0	401	393	158
27	0	0	0	0	0	0	118	413	0	378	394	148
28	0	0	0	0	0	0	125	426	0	381	393	108
29	0	0	0	0	-----	0	162	424	0	379	295	0
30	0	0	0	0	-----	0	254	412	0	381	0	0
31	0	-----	0	0	-----	0	-----	415	-----	385	0	-----
TOTAL	280	0	0	0	0	0	659	11,280	7,352	11,369	10,217	1,714
MEAN	9.03	0	0	0	0	0	22.0	364	245	367	330	57.1
MAX	130	0	0	0	0	0	254	426	412	437	394	173
MIN	0	0	0	0	0	0	0	252	0	0	0	0
AC-FT	555	0	0	0	0	0	1,310	22,370	14,580	22,550	20,270	3,400

CAL YR 1968: TOTAL 18,949.00 MEAN 51.8 MAX 415 MIN 0 AC-FT 37,580
WTR YR 1969: TOTAL 42,871.00 MEAN 117 MAX 437 MIN 0 AC-FT 85,030

13-1065. Salmon River Canal Co. reservoir near Rogerson, Idaho

LOCATION.--Lat 42°12'40", long 114°44'00", in NE¼ sec.18, T.14 S., R.15 E., Twin Falls County, at dam on Salmon Falls Creek, 7.5 miles west of Rogerson, and at mile 46.0.

DRAINAGE AREA.--1,610 sq mi, approximately.

PERIOD OF RECORD.--January 1922 to current year.

GAGE.--Nonrecording gage. Datum of gage is 4,945.8 ft above mean sea level.

EXTREMES.--Current year: Maximum contents observed, 71,200 acre-ft May 20-23 (gage height, 40.60 ft); minimum observed, 7,940 acre-ft Oct. 17 (gage height, 5.95 ft).

Period of record: 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. Usable capacity, 182,650 acre-ft between gage heights 0.0 (bottom of outlet tunnel) and 80.0 ft (maximum operating level). Dead storage, 48,000 acre-ft. Water is used for irrigation of lands in Salmon River Canal Co. project. Figures given herein represent usable contents.

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

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

5.0	6,550	30.0	48,800
10.0	13,800	40.0	69,800
15.0	21,500	41.0	72,200
20.0	30,000		

CONTENTS, IN ACRE-FT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7980	8840	11400	13500	17100	20500	29700	66400	68600	63800	42700	21000
2	8020	8910	11500	13600	17200	20600	31200	66800	68100	64000	42000	21000
3	8040	8980	11600	13700	17300	20700	32500	67100	67700	63800	41200	21000
4	8080	9050	11600	13800	17400	20800	34000	67400	67100	63200	40500	21000
5	8110	9160	11700	13900	17500	20900	35400	67700	66600	62900	39800	20900
6	8140	9230	11800	14000	17600	21000	37100	67900	66000	62500	39200	20900
7	8170	9300	11900	14100	17700	21100	38800	68000	65500	62000	38500	20900
8	8200	9400	12000	14100	17800	21200	40500	68100	65000	61400	37800	20900
9	8230	9520	12100	14200	17900	21400	42000	68200	64500	60800	37200	20900
10	8260	9590	12100	14300	18000	21500	43200	68300	64100	60200	36500	20900
11	8290	9680	12200	14400	18200	21600	44400	68600	63800	59600	35800	20900
12	8310	9760	12300	14500	18300	21600	45400	68800	63500	59000	34900	20900
13	8340	9850	12300	14600	18400	21700	46800	69200	63500	58200	34100	20900
14	8370	9940	12400	14700	18600	21800	48100	69500	63400	57300	33500	20900
15	8370	10000	12500	14800	18700	21900	49400	70000	63400	56700	32700	20900
16	8230	10100	12600	14900	18900	22000	50800	70300	63200	55900	32000	20900
17	7940	10200	12600	15000	19000	22100	52100	70700	63100	55000	31200	21000
18	8020	10300	12600	15100	19100	22200	53200	70900	63100	54200	30400	21000
19	8070	10300	12600	15200	19300	22400	54100	71100	62900	53300	29700	20500
20	8110	10400	12700	15300	19400	22600	55100	71200	62700	52400	29000	20200
21	8160	10500	12700	15500	19500	22800	56100	71200	62600	51600	28300	20000
22	8230	10500	12700	15600	19600	23000	57100	71200	62500	50800	27500	19700
23	8300	10600	12800	15800	19800	23300	58300	71200	62300	50000	26800	19500
24	8370	10700	12800	16000	19900	23600	59500	71100	62100	49100	26000	19200
25	8440	10800	12900	16100	20000	21900	61000	71000	62100	48300	25200	18900
26	8520	10900	13000	16300	20100	24000	62500	70700	62400	47400	24300	18500
27	8580	11000	13100	16500	20200	24500	63800	70500	62700	46700	23400	18200
28	8630	11100	13200	16600	20300	24900	64500	70200	63000	45800	22500	18100
29	8680	11200	13300	16800	-----	25800	65400	69700	63400	45000	21700	17900
30	8720	11300	13400	16900	-----	26900	66000	69500	63600	44300	21000	17900
31	8760	-----	13400	17100	-----	28300	-----	69000	-----	43500	21000	-----
(†)	6.52	8.25	9.75	12.17	14.28	19.00	38.30	39.65	37.15	27.35	-	12.75
(‡)	+820	+2540	+2100	+3700	+3200	+8000	+37700	+3000	-5400	-20100	-22500	-3100
MEAN	8280	10037	12445	15061	18671	22535	49267	69403	64083	55119	31819	20180
MAX	8760	11300	13400	17100	20300	28300	66000	71200	68600	64000	42700	21000
MIN	7940	8840	11400	13500	17100	20500	29700	66400	62100	43500	21000	17900

CAL YR 1968: MAX 32,300 MIN 6,470 ‡ +200
WTR YR 1969: MAX 71,200 MIN 7,940 ‡ +9,960

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

MUD LAKE-LOST RIVER BASINS

13-1085. Camas Creek at Eighteenmile Shearing Corral, near Kilgore, Idaho

LOCATION.--Lat 44°17'50", long 111°54'20", in NW¼ sec.7, T.11 N., R.39 E., Clark County, on right bank at old bridge immediately downstream from Eighteenmile Shearing Corral, 7 miles south of Kilgore, and 18.5 miles northeast of Dubois.

DRAINAGE AREA.--210 sq mi, approximately.

PERIOD OF RECORD.--May 1937 to October 1953 (no winter records prior to 1947), April 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,260 ft (by barometer). Prior to Sept. 23, 1938, at datum 1.21 ft higher.

EXTREMES.--Current year: Maximum discharge during period April to September, 2,590 cfs May 8 (gage height, 7.04 ft); minimum, 30 cfs Aug. 30 (gage height, 1.53 ft).

Period of record: Maximum discharge, 2,590 cfs May 8, 1969 (gage height, 7.04 ft); no flow for short periods in February 1949.

REMARKS.--Records good. Diversions above and below station for irrigation and stock water.

DISCHARGE, IN CUBIC FEET PER SECOND, FOR PERIOD APRIL TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							-	669	694	272	71	34
2							-	776	631	229	64	33
3							-	1,010	581	201	61	33
4							-	1,270	551	185	59	34
5							-	1,460	542	177	44	36
6							-	1,640	548	169	53	37
7							-	1,660	564	165	53	37
8							-	1,860	535	169	53	36
9							-	1,520	504	165	51	35
10							-	1,390	470	148	49	38
11							-	1,280	466	131	47	39
12							-	1,230	440	120	49	40
13							-	1,250	418	112	50	39
14							-	1,330	380	108	50	39
15							-	1,500	355	115	49	38
16							-	1,340	320	122	44	38
17							-	1,040	280	108	39	38
18							-	998	255	100	39	37
19							-	1,070	235	94	40	39
20							-	1,170	240	86	39	47
21							-	1,070	320	84	38	47
22							-	936	360	83	37	46
23							-	864	400	77	36	45
24							-	842	460	73	35	44
25							-	879	600	73	34	41
26							-	948	540	73	35	39
27							-	994	500	70	34	40
28							542	964	400	68	33	40
29					-----		669	883	360	69	32	38
30					-----		704	794	289	68	34	38
31		-----			-----		-----	743	-----	77	34	-----
TOTAL							-	35,380	13,238	3,791	1,386	1,165
MEAN							-	1,141	441	122	44.7	38.8
MAX							-	1,860	694	272	71	47
MIN							-	669	235	68	32	33
AC-FT							-	70,180	26,260	7,520	2,750	2,310

13-1120. Camas Creek at Camas, Idaho

LOCATION (revised).--Lat 44°00'10", long 112°13'12", in SE¼SE¼ sec.21, T.8 N., R.36 E., Jefferson County, on left bank 150 ft upstream from county road bridge, 250 ft upstream from Union Pacific Railroad bridge at Camas, and about 1.1 miles upstream from Beaver Creek.

DRAINAGE AREA.--400 sq mi, approximately. Mean altitude, 6,450 ft.

PERIOD OF RECORD.--April 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,806.84 ft above mean sea level (unadjusted). Prior to Aug. 21, 1925, nonrecording gage at site 0.1 mile downstream at different datum. Aug. 21, 1925, to Mar. 25, 1927, nonrecording 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.--43 years (1926-69), 32.0 cfs (23,180 acre-ft per year); 15-year base period (1952-67), 37.5 cfs.

EXTREMES.--Current year: Maximum discharge, 900 cfs May 8 (gage height, 6.30 ft); minimum daily discharge, 2.0 cfs Feb. 3-6, 19-22.

Period of record: Maximum discharge, 1,220 cfs May 2 or 3, 1952 (gage height, 6.53 ft); from rating curve extended above 510 cfs; no flow at times in many years.

REMARKS.--Records good except those for Nov. 16 to Apr. 1, which are fair. Diversions above and below station for irrigation and stock water and 30,000 acre-ft diverted into flood channel about 25 miles upstream Apr. 15 to May 24. Records of chemical analyses for the 1969 water year are published in Part 2 of this report.

COOPERATION.--Water-stage recorder inspected by employees of Water District 66.

REVISIONS (WATER YEARS).--WSP 813: 1935. WSP 1123: 1947. WSP 1567: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 12 to Mar. 28)
Oct. 1 to Apr. 1 Apr. 2 to Sept. 30

1.6	2.0	2.2	38	1.6	1.2	2.5	56
1.7	5.0	2.5	74	1.7	3.1	3.0	121
1.8	9.0	3.0	153	1.8	6.2	4.0	271
2.0	20	3.5	241	2.0	14	5.0	480
				2.2	27	6.0	795

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	22	13	7.0	9.0	3.0	160	182	480	226	33	13
2	13	22	9.0	7.0	6.0	3.0	149	185	430	200	29	13
3	16	22	10	7.0	2.0	3.0	136	247	385	168	25	12
4	15	26	10	7.0	2.0	3.0	81	377	353	145	23	11
5	15	32	10	10	2.0	3.0	61	517	339	135	22	12
6	15	29	10	16	2.0	3.0	50	658	331	124	18	13
7	14	27	10	15	3.0	3.0	14	722	339	115	16	14
8	14	24	10	13	4.0	3.0	10	764	347	111	15	14
9	15	20	9.4	12	5.0	3.0	12	784	333	111	15	14
10	15	15	10	10	6.0	3.0	14	649	312	90	12	15
11	15	18	10	12	6.0	3.0	16	583	306	74	12	15
12	15	19	10	12	5.0	3.0	32	529	304	64	11	15
13	15	19	10	12	5.0	3.0	67	514	274	54	11	15
14	17	16	10	12	4.0	3.0	95	541	255	46	12	15
15	19	14	10	12	4.0	3.0	94	568	228	47	12	15
16	22	12	10	13	4.0	6.0	52	669	208	55	12	14
17	18	10	10	13	3.0	6.0	19	529	190	53	12	14
18	17	11	10	13	3.0	6.0	4.3	460	176	45	13	13
19	15	12	10	13	2.0	6.0	2.5	452	161	35	13	14
20	15	12	10	13	2.0	6.0	2.3	480	152	32	15	15
21	17	13	9.0	16	2.0	6.0	2.0	500	160	29	15	17
22	16	13	8.0	16	2.0	6.0	3.1	452	208	31	14	19
23	16	13	7.0	15	3.0	6.0	11	397	232	35	12	19
24	16	13	7.0	13	3.0	6.0	26	379	253	33	12	18
25	16	13	7.0	10	2.9	6.0	50	577	281	31	10	14
26	16	13	7.0	10	3.0	6.0	38	619	403	30	9.6	15
27	16	13	7.0	10	3.0	7.0	47	655	359	31	10	14
28	16	13	7.0	10	3.0	8.0	61	690	276	30	11	15
29	15	13	7.0	10	-----	200	104	655	245	28	11	13
30	16	13	7.0	10	-----	185	152	586	230	29	11	12
31	19	-----	7.0	10	-----	175	-----	511	-----	28	12	-----
TOTAL	503	516	231.4	359.0	100.9	686.0	1,565.2	16,431	8,550	2,265	458.6	432
MEAN	16.2	17.2	9.08	11.6	3.60	22.1	52.2	530	285	73.1	14.8	14.4
MAX	22	32	13	16	9.0	200	160	784	480	226	33	19
MIN	14	10	7.0	7.0	2.0	3.0	2.0	182	152	28	9.6	11
AC-FT	998	1,020	558	712	200	1,360	3,100	32,590	16,960	4,490	910	857

CAL YR 1968: TOTAL 11,093.80

MEAN 30.3

MAX 289

MIN 0

AC-FT 22,000

WTR YR 1969: TOTAL 32,148.1

MEAN 88.1

MAX 784

MIN 2.0

AC-FT 63,760

MUD LAKE-LOST RIVER BASIN

13-1130. Beaver Creek at Spencer, Idaho

LOCATION.--Lat 44°21'20", long 112°10'45", in NE¼ sec.23, T.12 N., R.36 E., Clark County, on left bank 62 ft upstream from State Highway 22, 0.4 mile southeast of Spencer Post Office, and 2.5 miles upstream from Rattlesnake Creek.

DRAINAGE AREA.--120 sq mi, approximately.

PERIOD OF RECORD.--October 1940 to November 1952, October 1968 to current year (no winter records 1942-52).

GAGE.--Water-stage recorder. Altitude of gage is 5,850 ft (by barometer). October 1940 to November 1952 non-recording gage.

EXTREMES.--Current year: Maximum discharge, 642 cfs Apr. 24 (gage height, 7.63 ft); minimum daily, 12 cfs many days December to March.

Period of record: Maximum discharge, 642 cfs Apr. 24, 1969 (gage height, 7.63 ft); minimum observed, 0.5 cfs Jan. 26, 1942, Feb. 22, 1944.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 14-20, June 3-15, 21-30; stage-discharge relation affected by ice Nov. 8-10, Nov. 12 to Apr. 6)

2.2	7	4.0	190
2.3	14	5.0	310
2.5	30	6.0	430
3.0	79	7.0	560

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	18	18	12	14	14	140	272	252	126	50	26
2	15	18	18	12	13	14	130	296	230	110	46	25
3	15	20	18	12	12	14	122	357	212	99	45	24
4	15	28	18	12	12	14	114	395	200	94	42	24
5	15	25	18	15	12	14	109	439	194	92	40	25
6	15	18	18	17	14	12	105	448	195	91	38	26
7	15	17	18	16	14	12	101	444	224	93	39	26
8	14	17	18	15	14	12	98	444	201	96	36	25
9	14	17	18	14	14	12	103	413	195	87	36	24
10	15	17	18	14	16	12	114	416	185	81	34	27
11	16	19	18	14	15	12	112	412	189	76	35	28
12	16	19	18	14	14	12	102	407	170	72	51	28
13	16	19	18	14	14	12	130	431	179	69	61	29
14	18	19	18	14	14	13	163	502	162	71	44	29
15	22	19	18	14	14	14	172	554	164	81	45	28
16	20	19	18	14	14	15	180	462	138	75	36	27
17	18	16	18	14	14	16	194	412	131	66	34	27
18	18	16	18	14	14	16	220	405	122	61	33	27
19	18	16	17	14	14	16	202	440	118	60	32	30
20	18	16	16	14	14	16	215	413	125	57	30	33
21	18	18	14	18	14	16	257	383	159	60	29	43
22	18	18	12	17	14	16	350	358	171	55	28	35
23	18	18	12	16	14	16	486	336	143	52	28	32
24	18	18	12	14	14	16	533	328	220	51	28	30
25	18	18	16	14	14	16	330	339	317	51	27	30
26	17	18	16	14	14	16	258	354	191	51	27	29
27	17	18	16	14	14	16	254	353	157	48	25	29
28	17	18	16	14	14	16	323	333	142	50	24	28
29	17	18	16	14	-----	16	394	304	162	55	24	28
30	19	18	13	14	-----	20	327	280	165	64	27	29
31	22	-----	12	14	-----	25	-----	276	-----	56	27	-----
TOTAL	527	553	512	442	388	461	6,337	12,006	5,413	2,250	1,100	851
MEAN	17.0	18.4	16.5	14.3	13.9	14.9	211	387	180	72.6	35.5	28.4
MAX	22	28	18	18	16	25	533	554	317	126	61	43
MIN	14	16	12	12	12	12	98	272	118	48	24	24
AC-FT	1,050	1,100	1,020	877	770	914	12,570	23,810	10,740	4,460	2,180	1,690

CAL YR 1968: TOTAL
WTR YR 1969: TOTAL 30,840

MEAN
MEAN 84.5

MAX
MAX 554

MIN
MIN 12

AC-FT
AC-FT 61,170

LOCATION.--Lat 44°11'10", long 112°14'08", in NW¼NW¼ sec.21, T.10 N., R.36 E., Clark County, on left bank 0.7 mile north of Dubois.

PERIOD OF RECORD.--April 1921 to current year (no winter records 1925-28, 1930).

AVERAGE DISCHARGE.--43 years (1921-24, 1928-29, 1930-69), 19.3 cfs (13,980 acre-ft per year); 15-year base period (1952-67), 18.5 cfs.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	17	10	5.0	12	15	40	268	358	159	49	21
2	8.8	14	6.0	5.0	10	15	200	265	326	136	45	20
3	9.1	15	7.0	5.0	10	15	175	316	301	120	44	20
4	8.8	27	8.0	5.0	10	15	150	355	283	108	41	18
5	8.8	25	10	7.0	10	15	120	415	277	96	38	20
6	9.1	18	8.0	10	11	15	105	460	280	100	36	20
7	9.5	17	8.0	9.0	13	13	92	477	296	100	36	20
8	9.5	14	7.5	8.0	14	10	92	514	274	102	34	20
9	9.1	16	7.5	7.0	16	10	92	498	262	94	32	19
10	9.5	20	8.0	6.0	18	10	115	501	242	86	31	20
11	10	22	8.0	4.0	20	10	110	516	259	80	30	22
12	11	17	8.0	6.0	19	10	106	527	219	76	36	22
13	10	15	8.0	8.0	18	10	123	551	223	72	51	22
14	12	14	8.0	8.0	17	10	171	629	199	74	37	22
15	16	12	8.0	8.0	16	12	159	680	193	82	33	22
16	14	10	9.0	7.7	16	13	164	602	169	76	30	20
17	13	8.0	8.0	8.0	15	15	193	530	159	70	28	21
18	11	8.0	8.0	8.0	15	16	240	514	148	64	28	20
19	13	9.0	8.0	8.0	15	15	208	545	143	58	27	22
20	14	10	8.0	8.0	14	15	214	541	145	56	26	25
21	13	10	7.0	12	15	15	246	517	181	58	24	28
22	13	10	6.0	20	15	15	342	484	195	53	24	30
23	12	10	5.0	18	15	15	460	457	169	52	24	24
24	12	10	5.0	16	15	15	577	441	222	49	23	24
25	12	10	5.0	14	15	15	352	450	376	50	23	24
26	12	10	5.0	14	15	15	270	473	264	50	22	24
27	12	10	5.0	14	15	15	246	481	212	48	21	23
28	11	10	5.0	14	15	15	304	461	190	49	20	22
29	12	10	5.0	14	-----	16	384	425	195	50	20	22
30	13	10	5.0	14	-----	18	342	391	206	60	22	22
31	20	-----	5.0	14	-----	20	-----	378	-----	55	22	-----
TOTAL	358.2	408.0	218.0	304.7	409	433	6,392	14,662	6,966	2,383	957	659
MEAN	11.6	13.6	7.03	9.83	14.6	14.0	213	473	232	76.9	30.9	22.0
MAX	20	27	10	20	20	20	577	680	376	159	51	30
MIN	8.8	8.0	5.0	4.0	10	10	40	265	143	48	20	18
AC-FT	710	809	432	604	811	859	12,680	29,080	13,820	4,730	1,900	1,310
CAL YR 1968: TOTAL	8,412.2		MEAN 23.0		MAX 173		MIN 2.1		AC-FT 16,690			
WTR YR 1969: TOTAL	34,149.0		MEAN 93.6		MAX 680		MIN 4.0		AC-FT 67,740			

MUD LAKE-LOST RIVER BASINS

13-1140. Beaver Creek at Camas, Idaho

LOCATION.--Lat 44°00'27", long 112°13'25", in NW¼SW¼ sec.21, T.8 N., R.36 E., Jefferson County, on right bank 0.1 mile west of railroad crossing at Camas and about 1.4 miles upstream from mouth (revised).

DRAINAGE AREA.--510 sq mi, approximately. Mean altitude, 6,190 ft.

PERIOD OF RECORD.--April 1921 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,790 ft (by barometer). Prior to Dec. 22, 1949, nonrecording gages at nearby sites at present datum.

AVERAGE DISCHARGE.--48 years, 5.81 cfs (4,210 acre-ft per year); 15-year base period (1952-67), 7.02 cfs.

EXTREMES.--Current year: Maximum discharge, 229 cfs May 11 (gage height, 4.03 ft); no flow for long periods. Period of record: Maximum discharge, 229 cfs Apr. 21, 1962, May 11, 1969; maximum gage height, 4.03 ft May 11, 1969; no flow for long periods in each year; no flow for entire water years 1929, 1931-37, 1940, 1963.

REMARKS.--Records excellent. Flow affected by irrigation diversions above Dubois, 14 miles above station, and by heavy channel losses below Dubois.

COOPERATION.--Occasional inspections of recorder by Watermaster of Water District 66.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 21, 22)

1.2	0	2.0	22
1.3	.5	2.5	57
1.5	3.5	3.0	106
1.7	8.0	4.0	225

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	31	189	211	120	18	0
2	0	0	0	0	0	0	17	177	206	95	10	0
3	0	0	0	0	0	0	29	184	195	82	8.4	0
4	0	0	0	0	0	0	23	199	181	76	6.5	0
5	0	0	0	0	0	0	47	200	175	70	4.9	0
6	0	0	0	0	0	0	68	212	175	67	5.1	0
7	0	0	0	0	0	0	43	216	191	63	4.9	0
8	0	0	0	0	0	0	34	213	182	70	4.3	0
9	0	0	0	0	0	0	32	218	180	65	2.6	0
10	0	0	0	0	0	0	49	218	166	55	2.2	0
11	0	0	0	0	0	0	72	224	180	50	1.4	0
12	0	0	0	0	0	0	70	224	159	42	1.8	0
13	0	0	0	0	0	0	80	222	159	37	13	0
14	0	0	0	0	0	0	92	224	147	34	15	0
15	0	0	0	0	0	0	103	224	135	45	6.2	0
16	0	0	0	0	0	0	104	225	119	46	3.9	0
17	0	0	0	0	0	0	90	221	110	39	2.4	0
18	0	0	0	0	0	0	125	220	100	32	1.6	0
19	0	0	0	0	0	0	139	216	94	29	1.7	0
20	0	0	0	0	0	0	145	215	93	28	1.2	0
21	0	0	0	1.0	0	0	154	216	117	23	.60	0
22	0	0	0	15	0	0	169	216	133	25	0	0
23	0	0	0	10	0	0	186	215	126	18	0	0
24	0	0	0	1.0	0	0	202	212	127	16	0	2.1
25	0	0	0	0	0	0	201	212	134	15	0	2.4
26	0	0	0	0	0	0	187	211	187	15	0	1.7
27	0	0	0	0	0	0	175	213	162	14	0	1.0
28	0	0	0	0	0	18	177	216	144	10	0	.10
29	0	0	0	0	-----	37	194	216	138	14	0	0
30	0	0	0	0	-----	92	205	213	148	19	0	0
31	0	-----	0	0	-----	70	-----	212	-----	23	0	-----
TOTAL	0	0	0	27.0	0	277	3,243	6,598	4,614	1,337	115.70	7.30
MEAN	0	0	0	.87	0	8.94	108	213	154	43.1	3.73	.24
MAX	0	0	0	15	0	97	205	225	211	120	18	2.4
MIN	0	0	0	0	0	0	17	177	93	10	0	0
AC-FT	0	0	0	54	0	549	6,430	13,090	9,150	2,650	229	14
CAL YR 1968: TOTAL	1,775.00			MEAN 4.85		MAX 103		MIN 0		AC-FT 3,520		
WTR YR 1969: TOTAL	16,219.00			MEAN 44.4		MAX 225		MIN 0		AC-FT 32,170		

13-1150. Mud Lake near Terretton, Idaho

LOCATION.--Lat 43°53'30", long 112°21'30", in NE¼SE¼ sec.32, T.7 N., R.35 E., Jefferson County, 670 ft north of mouth of Camas Creek, 4.4 miles northeast of First Owsley pumphouse, and 5.5 miles northeast of Terretton.

DRAINAGE AREA.--1,130 sq mi, approximately, not including Medicine Lodge Creek.

PERIOD OF RECORD.--April 1921 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,774.99 ft above mean sea level, unadjusted. Prior to Oct. 31, 1931, nonrecording gages at or near pumphouse (now used as a 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.--Current year: Maximum contents, 31,900 acre-ft May 16; maximum gage height, 7.38 ft May 14 (affected by wind); minimum contents, 7,840 acre-ft Oct. 31, Nov. 1 (gage height, 1.90 ft).

Period of record: 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. Bypass was not used during 1969. 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. Records of chemical analyses for the 1969 water year are published in Part 2 of this report.

COOPERATION.--Water-stage recorder inspected by employees of Water District 66.

REVISIONS.--WSP 1567: Drainage area.

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

1.9	7,840	3.0	11,600	6.0	25,700
2.3	9,120	4.0	15,800	8.0	37,900

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14,800	7,940	11,600	15,700	20,600	22,300	22,000	29,500	29,600	28,200	14,800	15,300
2	14,400	8,030	11,700	15,900	20,700	22,300	21,900	29,700	29,800	28,300	14,500	15,500
3	14,200	8,310	11,800	16,000	20,800	22,300	21,900	29,900	29,800	28,300	14,000	15,600
4	13,900	8,470	11,900	16,200	20,900	22,300	21,900	30,200	29,900	28,500	13,600	15,600
5	13,600	8,560	12,000	16,300	21,100	22,300	22,000	30,400	30,100	28,600	13,200	15,800
6	13,500	8,660	12,100	16,300	21,300	22,300	23,000	30,500	29,600	28,900	13,100	15,700
7	13,300	8,760	12,200	16,500	21,400	22,300	23,800	30,500	29,700	28,900	13,100	15,900
8	13,100	8,890	12,300	16,600	21,500	22,300	24,400	30,800	29,100	28,700	12,800	16,100
9	12,700	9,080	12,500	16,700	21,600	22,300	25,000	31,000	28,600	28,400	12,800	16,300
10	12,300	9,150	12,600	16,900	21,700	22,400	25,200	31,200	28,200	28,100	12,800	16,400
11	11,900	9,320	12,700	17,100	21,800	22,400	25,500	31,300	27,800	27,800	12,900	16,500
12	11,600	9,450	12,900	17,300	21,900	22,400	25,900	31,400	27,200	27,300	12,900	16,500
13	11,300	9,480	13,000	17,400	22,000	22,400	26,100	31,500	26,700	26,900	12,900	16,700
14	11,300	9,550	13,100	17,500	22,000	22,400	26,400	31,600	26,500	26,600	13,000	16,600
15	11,100	9,720	13,200	17,600	22,100	22,400	26,600	31,600	26,200	25,900	13,100	16,600
16	10,800	9,830	13,300	17,700	22,100	22,400	26,800	31,800	26,200	25,200	13,000	16,600
17	10,500	9,940	13,500	18,000	22,100	22,400	27,100	31,800	26,100	24,700	13,100	16,500
18	10,300	10,000	13,600	18,200	22,100	22,400	27,300	31,600	26,100	24,100	13,200	16,600
19	10,000	10,100	13,800	18,400	22,100	22,400	27,500	31,600	26,100	23,400	13,400	16,500
20	9,860	10,300	13,900	18,600	22,100	22,400	27,500	31,200	26,200	22,600	13,500	16,600
21	9,620	10,400	14,000	18,900	22,100	22,400	27,700	30,900	26,400	21,700	13,600	16,600
22	9,420	10,500	14,200	19,100	22,100	22,400	27,800	30,800	26,500	20,700	13,700	16,700
23	9,150	10,600	14,300	19,200	22,100	22,400	28,000	30,700	26,700	19,700	13,900	16,800
24	8,950	10,700	14,500	19,400	22,200	22,400	28,000	30,500	26,900	18,800	14,100	16,600
25	8,730	10,900	14,800	19,600	22,300	22,400	28,100	30,600	27,100	18,000	14,200	16,200
26	8,500	11,000	15,000	19,800	22,300	22,400	28,200	30,500	27,400	17,400	14,400	16,000
27	8,340	11,100	15,200	19,900	22,300	22,400	28,500	30,200	27,500	16,900	14,500	15,800
28	8,310	11,200	15,200	20,000	22,300	22,300	28,700	29,900	27,600	16,500	14,700	15,500
29	8,090	11,300	15,300	20,200	-----	22,300	28,800	29,900	27,800	16,000	14,800	15,500
30	8,000	11,400	15,500	20,300	-----	22,200	29,100	29,700	28,100	15,600	14,900	15,100
31	7,840	-----	15,600	20,500	-----	22,200	-----	29,400	-----	15,300	15,100	-----
(†)	1.90	2.95	3.95	4.99	5.35	5.33	6.58	6.64	6.41	3.88	3.84	3.85
(‡)	-7,260	+3,560	+4,200	+4,900	+1,800	-100	+6,900	+300	-1,300	-12,800	-200	0
MAX	14,800	11,400	15,600	20,500	22,300	22,400	29,100	31,800	30,100	28,900	15,100	16,800
MIN	7,840	7,940	11,600	15,700	20,600	22,200	21,900	29,400	26,100	15,300	12,800	15,100

CAL YR 1968..... ‡ +800

WTR YR 1969..... ‡ 0

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

13-1160. Medicine Lodge Creek at Ellis Ranch, near Argora, Idaho

Rocky Creek gage.

LOCATION.--Lat 44°17'30", long 112°30'05", in SW¼SE¼ sec. 7, T.11 N., R.34 E., Clark County, on left bank 4 miles upstream from Middle Creek, 6.5 miles southeast of Argora, and 16 miles northwest of Dubois (revised).

DRAINAGE AREA.--165 sq mi. Mean altitude, 7,520 ft.

PERIOD OF RECORD.--October 1940 to Oct. 12, 1969 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,710 ft (from topographic map of dam sites). Prior to Nov. 16, 1940, nonrecording 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.--28 years (1941-69), 41.9 cfs (30,360 acre-ft per year); 15-year base period (1952-67), 38.6 cfs.

EXTREMES.--Current year: Maximum discharge, 135 cfs Apr. 12; maximum gage height, 2.86 ft June 24; minimum discharge, 10 cfs Dec. 22, 23 (gage height, 1.61 ft); minimum gage height, 1.54 ft Mar. 8.
Period of record: Maximum discharge, 361 cfs Apr. 15, 1962 (gage height, 4.52 ft), on basis of slope-area measurement of peak flow; minimum, 4.0 cfs Feb. 15, 1953, Nov. 28, 1954 (gage height, 1.24 ft).

REMARKS.--Records good. Several diversions above and below station for irrigation. Records of chemical analyses for the 1969 water year are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 20 to Mar. 29, June 18-28)

1.6	8
1.7	13
1.8	21
2.0	42
2.6	113

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	46	51	19	26	43	48	67	69	77	64	58
2	54	46	31	19	21	43	52	67	63	79	67	57
3	53	49	35	19	21	48	66	70	61	77	66	57
4	53	51	40	22	21	38	67	71	55	76	65	57
5	53	52	52	38	21	43	69	67	49	76	64	57
6	53	49	45	53	26	44	82	60	58	75	63	57
7	53	50	38	63	34	18	78	54	69	77	63	55
8	53	50	36	42	45	15	71	51	73	73	60	55
9	52	53	30	32	49	18	87	52	67	72	60	55
10	53	51	33	32	58	17	100	53	63	71	66	58
11	52	51	43	28	64	18	106	42	70	69	78	57
12	51	50	33	35	59	19	106	43	64	65	87	55
13	51	48	19	52	57	21	109	49	61	63	81	55
14	53	38	24	60	53	23	105	54	60	66	76	54
15	53	43	25	55	51	26	107	60	64	66	72	54
16	52	39	29	34	51	35	103	61	60	61	71	53
17	50	24	24	26	51	51	107	59	55	60	71	53
18	51	28	19	26	50	63	105	63	53	55	67	52
19	51	38	21	32	48	54	99	72	58	57	65	54
20	50	45	20	51	42	51	101	65	65	55	63	55
21	50	48	12	60	43	52	102	67	82	59	61	61
22	49	48	10	55	55	51	101	70	75	61	60	55
23	49	45	10	28	51	51	102	72	77	61	60	54
24	49	48	11	27	50	45	105	73	111	64	58	52
25	49	49	15	33	45	45	95	73	99	67	55	52
26	48	38	19	39	50	46	89	75	85	63	55	51
27	46	49	21	27	46	45	84	67	83	58	55	51
28	46	44	24	31	46	44	83	64	84	59	54	51
29	46	43	24	31	-----	45	77	66	88	60	55	52
30	49	52	22	30	-----	45	67	65	82	64	60	52
31	43	-----	21	25	-----	48	-----	67	-----	65	59	-----
TOTAL	1,574	1,365	837	1,124	1,234	1,205	2,673	1,939	2,103	2,051	2,001	1,639
MEAN	50.8	45.5	27.0	36.3	44.1	38.9	89.1	62.5	70.1	66.2	64.5	54.6
MAX	54	53	52	63	64	63	109	75	111	79	87	61
MIN	46	24	10	19	21	15	48	42	49	55	54	51
AC-FT	3,120	2,710	1,660	2,230	2,450	2,390	5,300	3,850	4,170	4,070	3,970	3,250

CAL YR 1968: TOTAL 16,991
WTR YR 1969: TOTAL 19,745

MEAN 46.4
MEAN 54.1

MAX 89
MAX 111

MIN 10
MIN 10

AC-FT 33,700
AC-FT 39,160

Not pub.

MUD LAKE-LOST RIVER BASINS

153

13-1170.2 Birch Creek at Blue Dome Inn, near Reno, Idaho

LOCATION.--Lat 44°09'14", long 112°54'24", in sec.32, T.10 N., R.30 E., Clark County, on right bank on upstream side of highway bridge, 0.2 mile downstream from Blue Dome Inn, 9 miles southeast of former Reno Post Office, and 34 miles west of Dubois.

DRAINAGE AREA.--380 sq mi, approximately.

PERIOD OF RECORD.--June 1967 to current year (no winter records).

Gage.--Water-stage recorder. Altitude of gage is 6,050 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 149 cfs July 30 (gage height, 1.56 ft); minimum, 56 cfs, Aug. 28 (gage height, 0.89 ft).

Period of record: Maximum discharge, 149 cfs July 30, 1969 (gage height, 1.56 ft); minimum, 53 cfs June 29, 30, July 1-5, 1968 (gage height, 0.88 ft).

REMARKS.--Records excellent. Small diversions above station for stock ranches and hay meadows.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

0.9	57
1.0	69
1.1	83
1.2	98

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78						-	89	67	64	64	58
2	78						-	88	68	60	64	59
3	78						-	89	67	59	63	59
4	76						-	87	63	58	63	60
5	75						-	84	62	58	64	62
6	75						-	82	62	59	65	62
7	75						-	80	63	60	64	62
8	75						-	78	62	63	64	62
9	76						-	76	60	65	68	64
10	76						-	75	60	65	68	65
11	76						-	73	59	65	68	64
12	76						-	73	59	65	72	64
13	76						-	73	60	65	69	64
14	78						-	74	60	64	69	63
15	-						-	76	60	65	69	63
16	-						94	75	60	64	68	63
17	-						94	74	60	64	69	63
18	-						94	72	59	63	68	63
19	-						94	71	59	59	67	64
20	-						92	70	62	59	67	65
21	-						90	70	65	59	65	64
22	-						90	69	60	60	62	64
23	-						90	69	59	62	62	63
24	-						92	69	64	63	60	63
25	-						92	68	64	64	60	65
26	-						90	68	63	62	60	67
27	-						89	69	63	60	59	68
28	-						88	68	63	63	58	69
29	-				-----		89	68	64	63	59	69
30	-				-----		89	68	64	76	59	69
31	-	-----			-----		-----	67	-----	69	59	-----
TOTAL	-						-	2,312	1,861	1,945	1,996	1,910
MEAN	-						-	74.6	62.0	62.7	64.4	63.7
MAX	-						-	89	68	76	72	69
MIN	-						-	67	59	58	58	58
AC-FT	-						-	4,590	3,690	3,860	3,960	3,790

MUD LAKE-LOST RIVER BASINS

13-1170.3 Birch Creek at Eight-Mile Canyon Road near Reno, Idaho

LOCATION.--Lat 44°04'49", long 112°52'30", in sec.28, T.9 N., R.30 E., Clark County, 300 ft downstream from Eight-Mile Canyon road crossing, 5.5 miles downstream from Blue Dome Inn, 14 miles southeast of Reno.

DRAINAGE AREA.--400 sq mi, approximately.

PERIOD OF RECORD.--June 1967 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 5,770 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 108 cfs July 31 (gage height, 1.62 ft); minimum, 38 cfs June 4, 5, 9, 18 (gage height, 1.30 ft).

Period of record: Maximum discharge, 108 cfs July 31, 1969 (gage height, 1.62 ft); minimum, 11 cfs July 5, 1967 (gage height, 0.97 ft).

REMARKS.--Records good. Diversions above station for stock ranches and hay meadows. Records of chemical analyses for the 1969 water year are published in Part 2 of this report.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-14		Apr. 16 to Sept. 30	
1.4	40	1.3	38
1.5	49	1.4	50
1.6	60	1.5	70

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48						-	56	44	43	50	43
2	49						-	56	46	43	48	43
3	49						-	56	43	41	48	43
4	48						-	54	41	41	48	44
5	48						-	54	40	42	48	44
6	48						-	52	40	42	48	44
7	48						-	52	41	43	48	44
8	48						-	52	41	44	47	43
9	49						-	50	40	47	48	46
10	49						-	50	40	48	49	47
11	50						-	48	40	48	49	46
12	51						-	48	40	47	54	46
13	52						-	48	41	49	52	44
14	53						-	49	40	50	52	44
15	-						-	50	41	52	50	44
16	-						-	66	49	41	50	44
17	-						-	64	48	41	50	44
18	-						-	64	48	40	49	43
19	-						-	64	47	40	48	44
20	-						-	62	47	41	47	47
21	-						-	58	46	44	47	47
22	-						-	58	46	43	47	46
23	-						-	60	46	42	49	46
24	-						-	62	46	44	50	46
25	-						-	62	46	44	49	47
26	-						-	62	44	43	49	47
27	-						-	60	44	43	49	48
28	-						-	58	44	43	49	48
29	-						-	58	43	44	49	48
30	-						-	60	43	44	54	48
31	-	-----			-----		-----	43	-----	60	43	-----
TOTAL	-						-	1,505	1,255	1,478	1,467	1,358
MEAN	-						-	48.5	41.8	47.7	47.3	45.3
MAX	-						-	56	46	60	54	48
MIN	-						-	43	40	41	43	43
AC-FT	-						-	2,990	2,490	2,930	2,910	2,690

13-1173. Sawmill Creek near Goldburg, Idaho

LOCATION.--Lat 44°18'40", long 113°20'20", in NE¼SE¼ sec.3, T.11 N., R.26 E., Lemhi County, on left bank 25 ft downstream from bridge, 0.4 mile upstream from Warm Creek, 2 miles southeast of Fairview guard station, and 16 miles east of Goldburg.

DRAINAGE AREA.--74.3 sq mi.

PERIOD OF RECORD.--July 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,600 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 48.2 cfs (34,920 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 563 cfs May 15 (gage height, 4.06 ft); maximum recorded gage height, 5.08 ft Dec. 17-18 (ice jam); minimum daily discharge, 12 cfs Dec. 3-5, 8-13.

Period of record: Maximum discharge, 651 cfs June 12, 1965 (gage height, 4.45 ft); minimum, 3.9 cfs Apr. 2, 1967 (gage height, 1.68 ft).

REMARKS.--Records good except those for November to March, which are poor. No regulation or diversion above station.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 9-19; stage-discharge relation affected by ice
Nov. 6-8, 10, Nov. 13 to Jan. 21, Jan. 23 to Mar. 14)

Oct. 1 to May 12				May 13 to Sept. 30			
2.1	9.8	3.0	127	1.9	17	3.0	188
2.2	16	3.5	247	2.0	25	3.5	386
2.4	34	4.1	440	2.3	57	3.8	521
2.6	58			2.6	100		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	26	13	13	16	16	21	107	214	66	35	23
2	30	23	13	14	15	15	22	100	194	62	34	22
3	29	27	12	14	15	16	23	100	180	61	34	22
4	29	28	12	14	15	16	27	115	174	60	33	21
5	29	24	12	14	15	15	32	148	183	58	33	22
6	29	24	13	15	16	16	40	199	174	60	33	21
7	28	24	13	15	15	15	38	247	161	71	33	21
8	28	24	12	15	15	16	37	293	152	62	32	21
9	28	22	12	15	15	16	44	334	138	57	32	21
10	29	22	12	14	15	16	54	394	130	56	31	22
11	28	27	12	14	16	16	58	408	118	54	31	23
12	28	27	12	15	17	17	67	408	109	51	34	23
13	27	23	12	18	17	18	75	368	105	50	33	25
14	30	21	13	18	15	19	70	395	98	50	31	24
15	28	20	14	17	16	18	64	480	95	51	30	23
16	28	20	15	16	16	16	61	386	90	48	30	22
17	29	17	16	16	16	16	67	386	84	47	30	22
18	28	15	17	16	16	16	75	439	79	44	29	23
19	27	15	17	17	16	16	70	421	77	43	28	25
20	26	13	16	23	16	15	73	399	78	42	26	32
21	27	18	16	25	15	15	89	333	75	41	23	29
22	25	13	15	27	15	17	133	299	72	40	23	25
23	25	18	15	24	15	17	187	316	72	39	21	24
24	25	17	15	22	16	16	199	364	73	38	21	24
25	25	17	16	18	17	17	159	395	74	38	21	23
26	25	15	15	19	15	17	131	408	74	39	22	22
27	25	15	13	18	15	18	119	417	74	38	23	22
28	26	15	14	16	15	18	123	364	74	40	23	20
29	26	15	14	15	-----	19	125	291	71	38	23	20
30	27	13	13	15	-----	19	113	265	68	38	23	20
31	26	-----	13	15	-----	20	-----	238	-----	37	23	-----
TOTAL	850	623	427	527	447	522	2,396	9,817	3,360	1,519	878	687
MEAN	27.4	20.3	13.8	17.0	16.0	16.8	79.9	317	112	49.0	28.3	22.9
MAX	30	29	17	27	17	20	199	480	214	71	35	32
MIN	25	13	12	13	15	15	21	100	68	37	21	20
CFSM	.37	.28	.19	.23	.21	.23	1.07	4.26	1.51	.66	.38	.31
IN.	.43	.31	.21	.26	.22	.26	1.20	4.91	1.68	.76	.44	.34
AC-FT	1,690	1,240	847	1,050	887	1,040	4,750	19,470	6,660	3,010	1,740	1,360

CAL YR 1968: TOTAL 16,585 MEAN 45.6 MAX 308 MIN 12 CFSM .61 IN 8.35 AC-FT 33,090
WTR YR 1969: TOTAL 22,053 MEAN 60.4 MAX 480 MIN 12 CFSM .81 IN 11.04 AC-FT 43,740

PEAK DISCHARGE (BASE, 130 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
4-23	2130	3.55	244	5-27	0400	3.16	235
5-15	0230	4.06	563				

NOTE.--No gage-height record Dec. 20 to Jan. 7, Jan. 26 to Apr. 2.

MUD LAKE-LOST RIVER BASINS

13-1187. Little Lost River below Wet Creek, near Howe, Idaho

LOCATION.--Lat 44°08'19", long 113°14'39", in NW¼SE¼ sec.4, T.9 N., R.27 E., Butte County, on right bank at Clyde School, 0.6 mile (revised) downstream from Wet Creek, and 27 miles northwest of Howe.

DRAINAGE AREA.--440 sq mi, approximately.

PERIOD OF RECORD.--January 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,880 ft (from topographic map).

AVERAGE DISCHARGE.--11 years, 61.2 cfs (44,340 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 325 cfs Apr. 6, but may have been greater during period of ice jam Apr. 3 (gage height, 3.56 ft); maximum gage height, 4.19 ft Apr. 3 (ice jam); minimum discharge, 20 cfs Dec. 8, 29 (gage height, 1.89 ft), but may have been less during period of ice effect or no gage-height record.

Period of record: Maximum daily discharge, 475 cfs June 12, 1965, but may have been more during period of doubtful gage-height record in 1958; maximum gage height recorded, 4.75 ft Jan. 12, 1968 (ice jam); minimum discharge recorded, 2.8 cfs Dec. 13, 1962.

REMARKS.--Records good except those for December to March, which are poor. A few small diversions above station for irrigation.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
 (Shifting-control method used Apr. 4 to May 20; stage-discharge relation affected by ice
 Nov. 13-14, 17, 26, 29, Dec. 2, 7-10, Dec. 12 to Feb. 9, Apr. 2, 3)

Oct. 1 to May 12				May 13 to Sept. 30			
1.9	21	2.4	78	2.3	49	3.0	197
2.0	28	3.0	232	2.6	97	3.4	351
2.2	46	3.2	295				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	73	24	24	29	29	143	143	219	116	72	64
2	76	73	23	25	28	29	165	138	200	118	72	61
3	76	75	23	25	27	29	190	130	185	135	70	61
4	76	33	22	25	27	30	218	143	174	132	69	62
5	74	74	23	26	27	30	206	164	171	128	69	66
6	74	71	24	27	28	30	260	192	174	123	69	64
7	74	71	23	28	28	30	181	215	174	150	67	64
8	73	69	22	28	27	30	116	244	168	135	64	61
9	73	80	21	27	28	30	133	256	160	120	64	61
10	73	55	21	26	30	30	148	276	160	118	60	64
11	71	52	21	26	30	30	146	289	160	116	60	67
12	71	60	22	27	31	31	136	292	158	114	66	64
13	71	43	22	33	31	31	148	302	152	110	64	67
14	74	42	23	33	30	32	143	306	147	112	61	67
15	73	37	24	31	30	31	128	320	145	114	60	67
16	71	33	23	30	30	28	118	315	142	108	60	66
17	67	30	25	29	30	28	121	320	140	103	58	64
18	69	23	28	29	30	28	133	310	135	97	60	64
19	71	30	26	30	30	28	128	315	128	97	60	66
20	71	33	25	40	30	28	128	315	123	93	57	72
21	71	32	22	70	30	28	136	294	125	90	56	74
22	71	35	21	70	30	29	181	269	132	88	56	67
23	73	33	22	45	29	29	235	273	132	84	56	66
24	74	31	24	40	29	28	251	286	132	84	56	66
25	74	32	26	33	30	29	195	306	140	84	57	66
26	74	23	23	35	30	30	167	306	140	82	58	64
27	73	27	22	33	29	31	148	310	142	78	61	62
28	74	23	23	30	29	32	148	302	140	78	61	61
29	73	25	24	28	-----	37	154	273	130	82	60	61
30	74	24	24	27	-----	55	148	247	123	78	64	62
31	74	-----	22	27	-----	82	-----	236	-----	77	66	-----
TOTAL	2,259	1,437	718	1,007	817	1,002	4,852	8,097	4,551	3,244	1,933	1,941
MEAN	72.9	47.9	23.2	32.5	29.2	32.3	162	261	152	105	62.4	64.7
MAX	76	80	28	70	31	82	260	320	219	150	72	74
MIN	67	24	21	24	27	28	116	130	123	77	56	61
AC-FT	4,480	2,850	1,420	2,000	1,620	1,990	9,540	16,060	9,030	5,430	3,830	3,850
CAL YR 1968: TOTAL	27,104.0		MEAN 74.1		MAX 315		MIN 2.4		AC-FT 53,760			
WTR YR 1969: TOTAL	31,868		MEAN 87.3		MAX 320		MIN 21		AC-FT 63,210			

13-1190. Little Lost River near Howe, Idaho

LOCATION (revised).--Lat 43°53'10", long 113°06'00", in SW¼SE¼ sec.34, T.7 N., R.28 E., Butte County, on left bank 0.2 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.

PERIOD OF RECORD.--April 1921 to current year (no winter records prior to October 1940). 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, nonrecording gage at site 120 ft downstream at datum 1.39 ft higher.

AVERAGE DISCHARGE.--29 years (1940-69), 71.2 cfs (51,580 acre-ft per year); 15-year base period (1952-67), 69.0 cfs.

EXTREMES.--Current year: Maximum daily discharge, 304 cfs Apr. 4; maximum recorded gage height, 5.38 ft (ice and log jam) Apr. 3; minimum discharge, 33 cfs Dec. 20 (gage height, 2.40 ft).

Period of record: Maximum discharge, about 450 cfs (based on extension of rating curve above 220 cfs) Aug. 11, 1936, during cloudburst (gage height, 5.4 ft, present site and datum, based on extension of rating curve above 230 cfs); maximum gage height observed, 6.63 ft Jan. 23, 1957 (ice jam); minimum discharge observed, 4.1 cfs Dec. 12, 1940.

REMARKS.--Records good except those for December to March, which are fair. Records of chemical analysis for the water year 1969 are published in Part 2 of this report.

REVISIONS.--WSP 1637: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 23 to Apr. 5, Apr. 17-25, Sept. 16-30; stage-discharge relation affected by ice Nov. 29, Dec. 7-10, 13-14, 18, 21-24, Dec. 27 to Jan. 5, 8-12, 17-22, Jan. 29 to Feb. 5, 8-9, 19-21, Feb. 27 to Mar. 1, 9-14)

Oct. 1 to Apr. 24				Apr. 25 to Sept. 30			
2.5	37	4.0	227	2.5	68	3.5	204
3.0	89	4.5	306	3.0	134	4.0	275

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	89	48	40	41	43	200	156	236	145	108	81
2	80	88	46	43	40	44	230	156	228	142	107	81
3	82	90	45	45	40	44	270	156	218	151	106	81
4	81	90	45	45	40	45	304	156	210	154	103	86
5	79	88	45	45	40	44	214	169	208	149	102	87
6	80	82	46	46	42	44	227	176	212	149	100	87
7	80	81	44	47	43	44	198	187	210	163	100	82
8	81	82	44	45	41	45	138	200	204	170	99	78
9	80	89	43	40	42	44	131	221	193	158	102	79
10	81	88	42	39	44	44	135	226	204	152	94	82
11	80	81	43	39	45	43	145	236	207	149	92	82
12	80	80	43	44	46	44	135	238	204	147	100	82
13	81	75	40	49	46	45	142	236	198	145	100	82
14	85	78	42	49	44	47	146	236	190	142	95	82
15	87	59	42	47	44	48	140	235	191	147	94	81
16	86	66	46	45	44	47	134	235	187	142	91	81
17	84	53	45	43	44	47	134	231	183	140	91	81
18	84	49	44	43	44	47	140	226	175	137	91	79
19	85	49	43	43	44	47	142	229	170	133	92	81
20	87	51	46	52	44	47	142	226	173	127	87	86
21	86	52	41	100	44	47	143	236	177	125	81	94
22	90	51	40	100	44	48	161	233	175	125	81	86
23	89	52	40	65	44	48	188	235	166	120	81	87
24	90	51	42	60	44	47	215	238	172	120	79	90
25	91	54	43	48	45	47	210	235	193	120	79	90
26	91	51	46	50	44	50	182	239	172	119	81	88
27	88	54	40	48	42	52	172	238	165	115	85	87
28	90	52	42	45	43	54	165	239	163	114	83	86
29	90	48	43	42	-----	62	162	242	158	120	79	86
30	90	50	40	40	-----	90	163	240	154	116	82	87
31	91	-----	38	40	-----	140	-----	239	-----	111	82	-----
TOTAL	2,629	2,023	1,337	1,527	1,208	1,588	5,208	6,745	5,696	4,247	2,847	2,522
MEAN	84.8	67.4	43.1	49.3	43.1	51.2	174	218	190	137	91.8	84.1
MAX	91	90	48	100	46	140	304	242	236	170	108	94
MIN	79	48	38	39	40	43	131	156	154	111	79	78
AC-FT	5,210	4,010	2,650	3,030	2,400	3,150	10,330	13,380	11,300	8,420	5,650	5,000

CAL YR 1968: TOTAL 32,318 MEAN 88.3 MAX 218 MIN 34 AC-FT 64,100
WTR YR 1969: TOTAL 37,577 MEAN 103 MAX 304 MIN 38 AC-FT 74,530

MUD LAKE-LOST RIVER BASINS

13-1195. Blaine County Investment Co.'s canal near Howe, Idaho

LOCATION (revised).--Lat 43°52'50", long 113°05'40", in NE¼NE¼ sec.3, T.6 N., R.28 E., Butte County, on left end of weir, 900 ft downstream from headgates, and 8 miles northwest of Howe.

PERIOD OF RECORD.--April 1924 to current year (prior to 1938, irrigation seasons only).

GAGE.--Nonrecording gage and sharp-crested weir. Altitude of gage is 5,020 ft (from nearby barometric determination). Prior to June 26, 1927, at site 700 ft upstream at different datum. June 26, 1927, to May 6, 1945, at site 180 ft upstream at present datum.

EXTREMES.--Period of record: Maximum daily discharge, 146 cfs April 26, 1966; no flow for long periods in each year.

REMARKS.--Records fair. Canal diverts from Little Lost River in NE¼NE¼ sec.3, T.6 N., R.28 E., for irrigation of lands in project of Blaine County Investment Co.

COOPERATION.--Gage readings furnished by Water District 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	16	0	0	0	0	0	0	117	60	22	11
2	16	16	0	0	0	0	0	0	116	51	21	11
3	16	16	0	0	0	0	0	0	109	50	21	11
4	16	16	0	0	0	0	0	0	104	61	21	11
5	16	34	0	0	0	0	0	0	101	57	21	11
6	15	45	0	0	0	0	0	0	102	55	21	11
7	15	45	0	0	0	0	0	0	102	60	21	11
8	15	48	0	0	0	0	0	43	122	61	21	11
9	15	51	0	0	0	0	0	83	96	62	21	11
10	15	52	0	0	0	0	0	90	98	64	19	11
11	15	53	0	0	0	0	0	93	102	64	19	11
12	14	53	0	0	0	0	0	106	105	55	19	11
13	13	52	0	0	0	0	0	112	102	52	19	11
14	13	52	0	0	0	0	0	112	97	48	19	11
15	13	31	0	0	0	0	0	112	98	47	19	11
16	13	0	0	0	0	0	0	113	99	46	18	11
17	13	0	0	0	0	0	0	114	95	45	18	11
18	13	0	0	0	0	0	0	114	88	43	17	11
19	13	0	0	0	0	0	0	105	80	41	17	11
20	13	0	0	0	0	0	0	102	81	41	17	11
21	13	0	0	0	0	0	0	112	81	38	17	11
22	13	0	0	0	0	0	0	116	80	36	15	13
23	13	0	0	0	0	0	0	117	78	33	13	15
24	14	0	0	0	0	0	0	117	75	31	12	15
25	16	0	0	0	0	0	0	117	76	32	11	15
26	16	0	0	0	0	0	0	117	77	30	11	15
27	16	0	0	0	0	0	0	120	77	27	11	15
28	16	0	0	0	0	0	0	122	79	26	11	15
29	16	0	0	0	-----	0	0	120	81	27	11	15
30	16	0	0	0	-----	0	0	119	72	26	11	15
31	16	-----	0	0	-----	0	-----	119	-----	25	11	-----
TOTAL	452	580	0	0	0	0	0	2,595	2,790	1,394	525	364
MEAN	14.6	19.3	0	0	0	0	0	83.7	93.0	45.0	16.9	12.1
MAX	16	53	0	0	0	0	0	122	122	64	22	15
MIN	13	0	0	0	0	0	0	0	72	25	11	11
AC-FT	897	1,150	0	0	0	0	0	5,150	5,530	2,760	1,040	722
CAL YR 1968: TOTAL	8,014.00											
WTR YR 1969: TOTAL	8,700.00											
	MEAN 21.9			MAX 119			MIN 0			AC-FT 15,900		
	MEAN 23.8			MAX 122			MIN 0			AC-FT 17,260		

13-1200. North Fork Big Lost River at Wild Horse, near Chilly, Idaho

LOCATION.--Lat 43°55'59", long 114°06'47", in NE¼SE¼ sec.17, T.7 N., R.20 E., Custer County, in Lemhi National Forest, on right bank 0.2 mile upstream from East Fork, 2 miles downstream from Wild Horse damsite, and 16 miles southwest of Chilly.

DRAINAGE AREA.--114 sq mi. Mean altitude, 8,540 ft.

PERIOD OF RECORD.--March 1944 to current year. Prior to October 1967, published as Big Lost River at Wild Horse, near Chilly.

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

AVERAGE DISCHARGE.--25 years, 104 cfs (12.39 inches per year, 75,350 acre-ft per year); 15-year base period (1952-67), 102 cfs.

EXTREMES.--Current year: Maximum discharge, 995 cfs May 26 (gage height, 5.19 ft); minimum, 10 cfs Mar. 10 (gage height, 1.13 ft).

Period of record: Maximum discharge, 1,420 cfs June 12, 1965 (gage height, 6.39 ft); minimum, 6.5 cfs Mar. 15, 1962 (gage height, 1.05 ft).

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

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Jan. 17-19, 24-25, Jan. 29 to Feb. 6, Feb. 15-24)

Oct. 1 to Mar. 13		Mar. 14 to Sept. 30	
1.4	20	1.3	18
2.0	64	1.5	29
		2.0	68
		2.5	132
		3.0	232
		4.0	537
		5.0	917
		5.1	958

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	43	26	31	26	23	33	211	613	214	129	52
2	52	42	24	30	26	22	37	200	580	257	119	50
3	51	44	27	27	25	23	43	196	590	294	114	49
4	50	45	31	29	25	22	47	208	657	286	111	49
5	49	40	32	29	25	22	54	264	789	283	107	50
6	49	36	26	29	25	24	72	350	892	298	99	49
7	48	37	25	29	25	22	64	427	754	305	93	48
8	47	37	29	23	25	20	60	504	624	283	88	47
9	45	40	27	25	26	21	78	563	586	276	83	49
10	45	37	29	28	26	21	107	610	570	290	82	59
11	45	39	31	28	26	23	115	640	540	309	82	57
12	59	42	25	29	26	23	121	645	487	329	84	64
13	57	33	23	29	25	24	143	650	455	322	81	60
14	56	29	24	29	22	24	147	667	435	305	78	56
15	54	36	27	29	22	24	137	617	426	286	75	54
16	52	36	30	24	22	24	128	588	387	270	73	53
17	49	34	26	24	20	23	144	631	353	249	73	51
18	50	37	28	24	20	23	165	703	365	235	70	49
19	48	37	29	28	20	22	154	655	380	218	68	55
20	48	36	28	29	21	21	162	594	371	207	66	65
21	46	35	28	26	21	21	199	537	371	196	64	65
22	46	37	25	26	22	22	290	551	346	191	63	59
23	46	32	29	23	23	23	370	637	308	179	61	56
24	45	32	29	25	23	21	347	743	337	171	61	54
25	45	36	30	28	24	21	275	856	312	165	61	52
26	45	28	30	29	23	23	227	926	283	161	60	51
27	44	34	26	27	21	23	204	889	256	147	58	49
28	44	31	29	28	22	23	213	773	236	165	57	48
29	44	25	26	26	-----	24	234	672	221	162	56	48
30	45	33	26	26	-----	27	215	703	207	147	55	47
31	44	-----	28	26	-----	31	-----	731	-----	139	54	-----
TOTAL	1,501	1,083	853	843	657	710	4,585	17,941	13,731	7,339	2,425	1,595
MEAN	48.4	36.1	27.5	27.2	23.5	22.9	153	579	458	237	78.2	53.2
MAX	59	45	32	31	26	31	370	926	892	329	129	65
MIN	44	25	23	23	20	20	33	196	207	139	54	47
CFSM	.42	.32	.24	.24	.21	.20	1.34	5.08	4.01	2.08	.69	.47
IN.	.49	.35	.28	.28	.21	.23	1.50	5.85	4.48	2.39	.79	.52
AC-FT	2,980	2,150	1,690	1,670	1,300	1,410	9,090	35,590	27,240	14,560	4,810	3,160
CAL YR 1968: TOTAL	33,253			MEAN 90.9	MAX 549	MIN 20		CFSM .80	IN 10.85	AC-FT 65,960		
WTR YR 1969: TOTAL	53,263			MEAN 146	MAX 926	MIN 20		CFSM 1.28	IN 17.38	AC-FT 105,600		

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
4-23	2100	3.58	399	6-6	0400	5.13	962
5-26	2200	5.19	995	7-13	0300	3.54	358

MUD LAKE-LOST RIVER BASINS

13-1205. Big Lost River at Howell Ranch, near Chilly, Idaho

LOCATION (revised).--Lat 43°59'54", long 114°01'12", in NE¼NW¼ sec.30, T.8 N., R.21 E., Custer County, on left bank at Howell Ranch, 2.1 miles downstream from Burnt Creek, 7.7 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.

PERIOD OF RECORD.--April 1904 to November 1914, May 1920 to current year (no winter records 1904, 1906-14, 1920-48).

GAGE.--Water-stage recorder. Datum of gage is 6,621.95 ft above mean sea level. Nonrecording gage prior to Apr. 20, 1906, at site 1.2 miles downstream at different datum, Apr. 20, 1906, to June 6, 1912, at site 100 ft downstream at different datum, June 7, 1912, to Nov. 14, 1914, at present site at datum 2.07 ft lower, and May 11 to June 16, 1920, at present site and datum.

AVERAGE DISCHARGE.--22 years (1904-5, 1948-69), 316 cfs (9.54 inches per year, 228,900 acre-ft per year); 15-year base period (1952-67), 311 cfs.

EXTREMES.--Current year: Maximum discharge, 3,140 cfs May 27 (gage height, 4.96 ft); minimum daily, 78 cfs Feb. 17-19.

Period of record: Maximum discharge, 4,420 cfs May 25, 1967 (gage height, 6.02 ft); minimum observed, 19 cfs Dec. 12, 1939 (discharge measurement).

REMARKS.--Records good except those for Nov. 15 to Apr. 7, which are poor. No regulation. Several small diversions above station. Hammerly ditch (capacity, about 20 cfs) diverts 0.2 mile downstream.

REVISIONS (WATER YEARS).--WSP 1287: Drainage area. WSP 1317: 1905.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 13 to about Apr. 10)

1.1	67	3.0	934
1.5	158	4.0	1,900
2.0	326	5.0	3,200
2.5	583		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	143	115	120	92	94	130	633	2,010	719	421	158
2	175	142	90	115	92	90	135	614	1,910	819	383	150
3	172	143	83	102	90	94	150	589	1,990	1,040	374	148
4	169	158	95	110	83	90	150	608	2,170	966	356	148
5	166	137	110	110	83	90	180	768	2,600	934	352	155
6	166	130	115	110	88	100	200	990	2,900	934	318	150
7	164	134	94	110	88	92	175	1,250	2,510	1,020	294	145
8	158	130	90	88	88	83	150	1,520	2,030	918	286	145
9	155	130	103	95	96	88	180	1,770	1,940	856	275	145
10	161	132	98	105	95	88	294	1,940	1,940	926	268	161
11	155	142	105	105	95	92	378	2,090	1,830	1,010	275	169
12	180	148	112	108	96	92	374	2,120	1,500	1,090	286	175
13	183	120	92	108	94	96	416	2,110	1,520	1,070	272	172
14	178	110	85	108	84	110	392	2,350	1,410	1,010	257	169
15	180	115	90	108	84	110	365	2,140	1,400	934	250	161
16	172	120	102	92	84	110	348	1,930	1,240	879	243	155
17	155	120	112	94	78	105	392	2,010	1,090	812	240	153
18	164	125	100	94	73	105	457	2,370	1,170	768	230	148
19	155	125	112	106	78	100	416	2,260	1,280	733	224	155
20	161	122	105	106	84	95	447	2,070	1,260	692	214	183
21	155	120	105	93	84	96	547	1,790	1,240	666	211	205
22	155	125	94	93	88	100	804	1,790	1,150	653	205	178
23	158	108	110	85	92	105	1,120	2,070	990	583	202	169
24	155	110	110	90	92	96	1,080	2,400	1,140	565	202	164
25	153	122	112	100	97	96	804	2,590	1,080	541	195	158
26	153	100	112	105	91	105	670	2,970	950	547	192	153
27	148	113	100	100	84	105	620	2,950	826	489	183	150
28	150	110	110	100	86	105	660	2,600	775	529	178	145
29	150	95	100	94	-----	110	747	2,200	726	535	172	142
30	155	88	100	92	-----	115	640	2,270	686	489	169	142
31	150	-----	105	92	-----	120	-----	2,420	-----	457	166	-----
TOTAL	5,029	3,734	3,166	3,138	2,475	3,078	13,431	58,282	45,363	24,184	7,893	4,751
MEAN	162	124	102	101	88.4	99.3	448	1,880	1,512	780	255	158
MAX	183	158	115	120	97	120	1,120	2,970	2,900	1,090	421	205
MIN	148	83	83	85	78	83	130	583	686	457	166	142
CFSM	.36	.23	.23	.22	.20	.22	.99	4.18	3.36	1.73	.57	.35
IN.	.42	.31	.26	.26	.20	.25	1.11	4.82	3.75	2.00	.65	.39
AC-FT	9,970	7,410	6,280	6,220	4,910	6,110	26,640	115,500	89,980	47,970	15,660	9,420

CAL YR 1968: TOTAL 110,930 MEAN 303 MAX 1,900 MIN 55 CFSM .67 IN 9.17 AC-FT 220,000
WTR YR 1969: TOTAL 174,525 MEAN 478 MAX 2,970 MIN 78 CFSM 1.06 IN 14.42 AC-FT 345,200

PEAK DISCHARGE (BASE, 900 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-23	2400	3.47	1,350	6-6	0930	4.95	3,110
5-27	1000	4.96	3,140	7-13	0300	3.34	1,170

NOTE.--No gage-height record Nov. 30 to Apr. 7.

MUD LAKE-LOST RIVER BASINS

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13-1260. Mackay Reservoir near Mackay, Idaho

LOCATION.--Lat 43°57'05", long 113°40'28", in NW¼NE¼SW¼ sec.12, T.7 N., R.23 E., Custer County, on gate-control tower of dam on Big Lost River, 4 miles northwest of Mackay.

DRAINAGE AREA.--788 sq mi.

PERIOD OF RECORD.--January 1919 to current year.

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. Prior to Oct. 15, 1959, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 44,300 acre-ft June 25 (gage height, 66.45 ft); minimum not determined.

Period of record: Maximum contents, 45,580 acre-ft June 15, 1963 (gage height, 67.38 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 12,700 acres irrigated from Big Lost River and tributaries above reservoir by surface diversions, and about 10,200 acres irrigated by subirrigation. 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.

COOPERATION.--Capacity table furnished by Water District 27.

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

14.0	1,630	40.0	15,800
15.0	1,930	60.0	35,900
20.0	3,740	67.0	45,100
30.0	8,730		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32,800	34,700	-	33,300	33,800	28,700	9,630	8,290	29,000	42,700	31,000	6,910
2	32,900	34,800	34,700	33,300	33,700	28,200	9,210	8,080	29,700	42,400	30,100	6,160
3	33,000	34,900	34,700	33,300	33,700	27,600	8,840	7,890	30,400	42,100	29,100	5,540
4	33,100	34,900	34,600	33,300	33,700	27,100	8,590	7,680	31,500	42,000	28,300	4,970
5	33,200	35,000	34,500	33,400	33,700	26,600	8,490	7,520	33,400	41,800	27,400	
6	33,300	35,000	-	33,400	33,700	26,000	8,470	7,500	35,400	41,700	26,600	-
7	33,400	35,100	-	33,400	33,700	25,400	8,390	7,600	37,100	41,800	25,700	-
8	33,500	35,100	-	33,400	33,600	24,800	8,220	7,750	38,300	41,800	24,900	-
9	33,600	35,200	34,300	33,400	33,600	24,200	7,960	7,930	39,400	41,600	24,000	-
10	33,700	35,200	34,300	33,400	33,600	23,600	7,750	8,160	40,800	41,400	23,100	-
11	33,800	35,200	34,200	33,400	33,600	23,000	7,570	8,640	41,900	42,300	22,300	-
12	33,900	35,300	34,200	33,500	33,600	22,400	7,360	9,150	42,800	41,200	21,500	-
13	34,000	35,300	-	33,500	33,500	21,800	7,210	9,630	43,400	41,200	20,800	-
14	34,200	35,300	-	33,600	33,500	21,100	7,070	10,300	43,800	41,100	19,800	-
15	34,200	35,200	-	33,600	33,500	20,400	6,980	10,900	44,100	41,100	19,100	-
16	34,200	35,200	33,900	33,600	33,500	19,600	6,920	11,200	44,200	40,900	18,300	-
17	34,200	35,200	-	33,600	33,400	18,800	6,880	11,600	43,900	40,700	17,500	-
18	34,200	35,200	33,800	33,600	33,000	18,000	6,960	12,400	43,900	40,400	16,700	-
19	34,200	35,200	33,700	33,600	32,800	17,300	7,110	13,300	44,100	40,100	16,000	-
20	34,300	35,200	33,700	33,600	32,500	16,600	7,230	14,000	44,300	39,600	15,200	-
21	34,300	35,200	-	33,700	32,300	15,800	7,330	14,300	44,300	39,200	14,600	-
22	34,400	35,200	-	33,700	32,000	15,200	7,490	14,400	44,200	38,700	13,800	-
23	34,400	35,100	-	33,700	31,800	14,500	7,920	14,900	44,000	38,000	13,100	-
24	34,500	35,100	-	33,700	31,500	13,800	8,810	16,500	44,200	37,200	12,400	-
25	34,500	35,100	-	33,700	30,900	13,100	9,090	18,600	44,300	36,600	11,600	-
26	34,500	35,100	33,200	33,800	30,300	12,500	9,020	20,500	44,200	35,700	10,900	1,840
27	34,500	35,000	33,200	33,800	29,800	11,900	8,870	22,400	44,000	34,900	10,100	1,880
28	34,600	35,000	33,200	33,800	29,200	11,400	8,670	24,000	43,700	34,200	9,410	1,930
29	34,600	-	-	33,800	-----	10,900	8,590	25,300	43,500	33,400	8,720	1,970
30	34,700	34,900	-	33,800	-----	10,500	8,470	26,600	43,200	32,700	8,060	2,020
31	34,700	-----	33,300	33,800	-----	10,100	-----	28,000	-----	31,900	7,440	-----
(†)	59.01	-	57.82	58.24	54.30	32.16	29.57	53.17	65.66	56.64	27.79	15.29
(‡)	+2,020	+200	-1,600	+500	-4,600	-19,100	-1,630	+19,530	+15,200	-11,300	-24,460	-5,420
MAX	34,700	35,300	-	33,800	33,800	28,700	9,630	28,000	44,300	42,700	31,000	6,910
MIN	32,800	34,700	-	33,300	29,200	10,100	6,880	7,500	29,000	31,900	7,440	-

CAL YR 1968..... † +9,650

WTR YR 1969..... ‡ -30,670

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

MUD LAKE-LOST RIVER BASINS

13-1265. Sharp ditch near Mackay, Idaho

LOCATION.--Lat 43°56'50", long 113°39'27", in SW¼SW¼ sec.7, T.7 N., R.24 E., Custer County, on left bank 1,600 ft downstream from head of ditch, 0.8 mile downstream from Mackay Reservoir, and 3.5 miles northwest of Mackay.

PERIOD OF RECORD.--June 1912 to October 1914, March 1919 to October 1969 (discontinued) (seasonal records only 1912-14, 1919-20, 1923-26, 1930, 1937).

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 5,984.98 ft above mean sea level. Prior to Oct. 1, 1936, and June 24, 1938, to Apr. 24, 1939, nonrecording 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.--Period of record: Maximum daily discharge, 53 cfs June 21, 1968; no flow at times in most years.

REMARKS.--Records good. Sharp ditch diverts from east side of Big Lost River in SE¼ sec.12, T.7 N., R.23 E., 0.5 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 above station, was reported by watermaster to have carried 413 acre-ft during year (40 in October, 4 in May, 125 in June, 101 in July, 99 in August, and 44 in September).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.6	0	0	0	0	.03	1.7	29	8.2	31	22
2	12	9.5	0	0	0	0	.04	1.7	29	10	30	22
3	12	9.5	0	0	0	0	.07	1.7	33	15	29	21
4	15	9.3	0	0	0	0	.08	1.5	36	15	28	13
5	15	9.3	0	0	0	0	.09	1.7	36	14	28	12
6	15	9.3	0	0	0	0	.10	1.7	35	12	29	14
7	15	9.1	0	0	0	0	.10	8.1	35	16	29	14
8	15	9.1	0	0	0	0	.13	12	34	19	28	13
9	15	9.1	0	0	0	0	.16	12	34	18	28	13
10	15	9.1	0	0	0	0	.16	13	34	18	27	13
11	15	9.1	0	0	0	0	.16	14	34	18	26	14
12	15	9.1	0	0	0	0	.19	16	34	22	19	14
13	15	9.5	0	0	0	0	.19	17	35	24	.51	11
14	15	9.6	0	0	0	0	.22	21	36	23	29	9.6
15	16	9.5	0	0	0	0	.22	28	36	23	43	9.6
16	16	9.6	0	0	0	0	.22	32	36	21	42	4.8
17	12	9.5	0	0	0	0	.22	32	36	20	41	.20
18	8.5	9.5	0	0	0	0	.22	32	36	21	41	3.5
19	8.5	9.6	0	0	0	0	.22	37	35	21	40	5.4
20	8.2	9.5	0	0	0	0	.22	39	34	23	40	5.1
21	8.2	7.1	0	0	0	0	.30	39	34	24	39	4.6
22	8.2	7.1	0	0	0	0	.40	39	33	23	38	4.4
23	8.8	7.1	0	0	0	0	.45	35	32	23	37	4.2
24	8.8	7.1	0	0	0	0	.48	47	17	27	36	4.2
25	8.5	7.1	0	0	0	.01	.51	36	8.8	31	36	4.0
26	9.1	7.1	0	0	0	.01	.51	28	8.8	30	36	4.0
27	9.1	7.1	0	0	0	.01	.45	27	8.8	30	34	5.4
28	9.3	7.1	0	0	0	.01	.40	26	8.5	29	32	6.6
29	9.1	7.1	0	0	-----	.02	.40	26	8.5	29	29	6.4
30	9.6	7.1	0	0	-----	.02	1.1	28	8.2	31	23	6.4
31	9.6	-----	0	0	-----	.02	-----	28	-----	32	22	-----
TOTAL	367.5	259.1	0	0	0	0.10	8.04	682.1	854.6	670.2	970.51	284.40
MEAN	11.9	8.54	0	0	0	.003	.27	22.0	28.5	21.6	31.3	9.48
MAX	16	9.6	0	0	0	.02	1.1	47	36	32	43	22
MIN	8.2	7.1	0	0	0	0	.03	1.5	8.2	8.2	.51	.20
AC-FT	729	514	0	0	0	.2	16	1,350	1,700	1,330	1,920	564
CAL YR 1968 : TOTAL	3,245.88			MEAN	8.87	MAX	53	MIN	0	AC-FT	6,440	
WTR YR 1969 : TOTAL	4,096.55			MEAN	11.2	MAX	47	MIN	0	AC-FT	8,130	

13-1270. Big Lost River below Mackay Reservoir, near Mackay, Idaho

LOCATION.--Lat 43°56'20", Long 113°38'50", in SW¼NE¼ sec.18, T.7 N., R.24 E., Custer County, on left bank 1 mile downstream from head of Sharp ditch, 1.5 miles downstream from Mackay Reservoir, and 2.5 miles northwest of Mackay.

DRAINAGE AREA.--813 sq mi.

PERIOD OF RECORD.--December 1903 to August 1906 and May 1912 to March 1915 (published as "near Mackay"), January 1919 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,946.39 ft above mean sea level. Nonrecording gage prior to May 12, 1912, and June 5, 1912, to Apr. 28, 1913, at sites within 1 mile upstream at different datums, May 12 to June 4, 1912, at site 1.5 miles upstream (above Sharp ditch) at different datum, Apr. 29, 1913, to Mar. 15, 1915, at site 1 mile downstream (below Streeter ditch) at different datum.

AVERAGE DISCHARGE.--53 years (1904-5, 1912-14, 1919-69), 293 cfs (212,300 acre-ft per year); 15-year base period (1952-67), 317 cfs.

EXTREMES.--Current year: Maximum discharge, 1,540 cfs May 28 (gage height, 4.43 ft); minimum, 125 cfs Sept. 17, 18 (gage height, 1.85 ft).

Period of record: Maximum discharge, 2,990 cfs June 10, 1921 (gage height, 5.79 ft); minimum, 16 cfs Oct. 27, 1967 (gage height, 1.11 ft).

REMARKS.--Records good. Flow completely regulated by Mackay Reservoir (see sta 13-1260). Sharp ditch (see sta. 13-1265) is only diversion between station and reservoir; about 12,700 acres of land are irrigated by diversions from river and tributaries above reservoir by surface diversions, and 10,200 acres irrigated by sub-irrigation. Records of chemical analysis for the water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1347: 1904-6.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.9	138	3.0	568
2.0	163	4.0	1,210
2.5	333	4.5	1,560

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	236	249	191	200	487	584	706	1,340	918	857	531
2	180	239	249	191	200	484	584	695	1,360	907	846	539
3	180	239	249	192	200	482	580	689	1,370	900	834	538
4	177	239	249	194	200	487	573	680	1,190	899	824	523
5	177	239	249	194	200	490	516	674	1,060	902	772	500
6	177	239	249	194	200	516	475	672	1,230	903	740	478
7	177	239	249	194	203	510	469	779	1,390	893	731	458
8	180	239	245	195	203	508	469	902	1,380	889	723	439
9	180	239	244	196	203	505	477	1,070	1,160	886	715	410
10	180	249	244	196	203	501	477	1,200	1,030	882	712	413
11	180	256	244	197	203	510	477	1,220	1,040	867	705	419
12	180	256	242	197	203	515	472	1,360	1,050	865	703	388
13	180	256	242	197	206	520	467	1,460	1,060	871	720	342
14	183	253	242	197	207	526	464	1,500	1,070	871	686	306
15	207	253	243	197	207	567	448	1,520	1,110	871	665	308
16	232	253	239	198	207	608	422	1,530	1,210	874	659	249
17	236	253	239	198	321	599	413	1,500	1,180	875	650	142
18	239	253	239	198	321	592	382	1,470	981	873	642	198
19	239	253	239	199	321	583	362	1,440	915	870	637	260
20	239	253	239	200	323	575	362	1,460	1,010	867	627	250
21	239	249	239	200	325	568	391	1,460	1,080	858	618	242
22	239	249	239	200	325	568	415	1,450	1,080	854	608	233
23	239	249	239	200	325	566	460	1,340	1,040	925	599	221
24	239	249	239	200	325	563	399	960	1,040	954	603	218
25	239	247	239	200	325	568	616	926	1,040	920	611	216
26	236	251	239	199	325	569	727	1,280	1,040	913	608	211
27	236	256	219	198	492	573	726	1,500	1,010	905	599	207
28	236	254	188	197	490	575	721	1,430	965	900	582	202
29	239	251	188	197	-----	579	715	1,320	924	888	573	199
30	239	250	191	197	-----	579	712	1,210	923	875	563	195
31	236	-----	191	197	-----	582	-----	1,270	-----	861	550	-----
TOTAL	6,523	7,441	7,295	6,100	7,463	16,855	15,355	36,673	33,278	27,536	20,962	9,835
MEAN	210	248	235	197	267	544	512	1,183	1,109	888	676	328
MAX	239	256	249	200	492	608	727	1,530	1,390	954	857	539
MIN	177	236	188	191	200	482	362	672	915	854	550	142
AC-FT	12,940	14,760	14,470	12,100	14,800	33,430	30,460	72,740	66,010	54,620	41,580	19,510
CAL YR 1968: TOTAL	108,713			MEAN 297	MAX 1,610	MIN 98	AC-FT 215,600					
WTR YR 1969: TOTAL	195,316			MEAN 535	MAX 1,530	MIN 142	AC-FT 387,400					

13-1289. Lower Cedar Creek above diversions, near Mackay, Idaho

LOCATION.--Lat 43°57'57", long 113°34'40", in NW¼SW¼ sec.2, T.7 N., R.24 E., Custer County, on right bank at abandoned powerplant site, approximately 1,000 ft upstream from the heading of Nielson diversion, and 3.9 miles northeast of Mackay.

DRAINAGE AREA.--8.26 sq mi.

PERIOD OF RECORD.--Annual maximum, water years 1963, 1964-66, published as Cedar Creek near Mackay and Cedar Creek above diversions, near Mackay, respectively, August 1966 to current year. Combination of discharge records for Clark ditch near Mackay and Cedar Creek (below powerplant) near Mackay for May 1920 to September 1922 (seasonal records only) is equivalent to this record.

GAGE.--Water-stage recorder. Altitude of gage is 6,800 ft (from topographic map). May 1, 1920, to Oct. 21, 1922, nonrecording gage at present site at different datums. Sept. 26, 1963, to Aug. 13, 1966, crest-stage gage at site 20 ft downstream at datum 9.32 ft lower.

EXTREMES.--Current year: Maximum discharge, 125 cfs May 27 (gage height, 2.66 ft); minimum daily, 4.2 cfs Mar. 18-28; minimum gage height, 1.17 ft Jan. 22, 26, result of freezeup.

Period of record: Maximum discharge, 297 cfs June 7, 1921 (gage height, 2.8 ft, datum then in use, Clark ditch reported dry). Minimum discharge, 1.9 cfs (ice jam upstream) Jan. 3, 1967 (gage height, 1.41 ft).

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

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 30)

Oct. 1 to June 28

June 29 to Sept. 30

1.3	3.0	2.0	44	1.5	7.0
1.4	5.5	2.5	101	1.6	12
1.5	9.4	2.6	114	2.0	42
1.6	14			2.2	61

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	11	8.2	6.7	5.2	4.5	5.0	9.9	56	33	26	12
2	20	11	7.8	6.3	5.0	4.5	5.2	9.4	57	50	24	12
3	19	11	7.8	6.3	5.0	4.5	5.9	8.6	58	55	23	12
4	18	11	7.8	6.3	5.0	4.5	6.3	9.4	69	44	22	12
5	18	10	7.8	6.3	5.0	4.5	7.8	12	82	43	22	11
6	18	10	7.8	6.3	5.0	4.5	8.6	19	84	40	19	11
7	17	10	7.8	6.3	5.0	4.5	6.3	31	69	37	18	11
8	16	9.9	7.8	6.3	4.8	4.5	5.9	32	57	37	18	11
9	16	9.9	7.4	6.7	4.8	4.5	6.7	39	54	42	18	11
10	15	9.9	7.4	6.7	4.8	4.5	10	43	55	44	18	11
11	15	9.4	7.4	6.7	4.8	4.5	10	42	50	44	19	11
12	14	9.4	7.1	6.7	4.8	4.5	10	39	47	45	20	12
13	14	9.4	7.1	6.7	4.8	4.5	12	41	47	44	19	12
14	14	9.4	7.1	6.3	4.8	4.5	9.4	45	46	43	19	11
15	13	9.4	7.1	6.3	4.5	4.5	7.8	40	47	42	18	11
16	13	9.4	7.1	6.3	4.5	4.5	7.1	39	46	41	18	11
17	12	9.0	7.1	6.3	4.5	4.5	8.6	44	43	40	18	11
18	12	9.0	7.1	6.3	4.5	4.2	12	61	46	38	18	11
19	12	9.0	6.7	6.3	4.5	4.2	9.4	45	48	38	17	11
20	12	8.6	7.1	6.3	4.8	4.2	8.6	45	49	38	17	11
21	12	8.6	7.1	6.3	4.8	4.2	12	42	49	36	17	11
22	11	8.6	7.1	5.9	4.8	4.2	24	41	46	36	17	10
23	11	8.6	7.1	5.5	4.8	4.2	30	50	41	33	17	10
24	11	8.6	7.1	5.5	4.8	4.2	21	73	37	33	17	10
25	11	8.6	7.1	5.5	4.5	4.2	15	77	35	33	17	10
26	11	8.2	7.1	5.5	4.5	4.2	12	104	32	32	16	9.7
27	11	8.2	6.7	5.5	4.5	4.2	11	101	30	30	16	10
28	11	8.2	6.7	5.5	4.5	4.2	9.9	67	28	32	14	10
29	11	8.2	6.7	5.5	-----	4.5	12	61	27	31	14	10
30	11	8.2	6.7	5.2	-----	5.0	10	78	26	30	14	10
31	11	-----	6.7	5.2	-----	5.5	-----	75	-----	28	12	-----
TOTAL	430	279.7	224.6	189.5	133.3	137.7	319.5	1,423.3	1,461	1,192	562	326.7
MEAN	13.9	9.32	7.25	6.11	4.76	4.44	10.7	45.9	48.7	38.5	18.1	10.9
MAX	20	11	8.2	6.7	5.2	5.5	30	104	84	55	26	12
MIN	11	8.2	6.7	5.2	4.5	4.2	5.0	8.6	26	28	12	9.7
CFSM	1.68	1.13	.88	.74	.58	.54	1.29	5.56	5.90	4.66	2.19	1.32
IN.	1.94	1.26	1.01	.85	.60	.62	1.44	6.41	6.58	5.37	2.53	1.47
AC-FT	853	555	445	376	264	273	634	2,820	2,900	2,360	1,110	648

CAL YR 1968: TOTAL 6,975.5

MEAN 19.1

MAX 130

MIN 3.5

CFSM 2.31

IN 31.41

AC-FT 13,840

WTR YR 1969: TOTAL 6,679.3

MEAN 18.3

MAX 104

MIN 4.2

CFSM 2.22

IN 30.07

AC-FT 13,250

13-1309. Antelope Creek above Willow Creek, near Darlington, Idaho

LOCATION.--Lat 43°40'43", long 113°37'45", in NE¼SW¼NW¼ sec.17, T.4 N., R.24 E., Custer County, at Marcroft Ranch, 0.2 mile upstream from Willow Creek, and 14 miles southwest of Darlington.

DRAINAGE AREA.--93.4 sq mi.

PERIOD OF RECORD.--May 1966 to current year. May 1913 to September 1916, May 1920 to September 1922 at site 4 miles downstream, published as "near Darlington;" records not equivalent owing to diversions and inflow.

GAGE.--Water-stage recorder. Altitude of gage is 6,240 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 673 cfs May 26 (gage height, 5.75 ft); minimum, 15 cfs Jan. 22 (gage height, 1.67 ft).

Period of record: Maximum discharge, 829 cfs May 24, 1967 (gage height, 6.86 ft); minimum, 13 cfs Feb. 19, 20, Mar. 7, 1967 (gage height, 1.88 ft).

REMARKS.--Records good. Diversions above station for irrigation of about 800 acres.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 29, Dec. 2, 12, 13, 17, 18, 20-23, 27,
Dec. 29 to Jan. 2, Jan. 8-11, 17, 18, 23-25, 27, Jan. 29 to Feb. 5, Feb. 8, 17-19, 26-28, Mar. 8-14).

1.6	13	3.0	162
1.8	21	4.0	336
2.0	33	5.0	523
2.5	88	5.7	656

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	29	23	23	23	22	35	268	489	132	61	35
2	28	23	23	23	22	22	39	262	464	144	59	33
3	28	32	21	23	22	22	47	248	483	152	55	33
4	28	33	22	23	22	22	54	282	510	148	54	34
5	28	30	23	23	22	22	59	345	515	144	52	34
6	28	25	23	24	23	22	71	400	529	140	50	34
7	28	23	22	23	23	21	68	438	494	151	49	33
8	28	29	23	23	22	22	70	500	439	133	48	32
9	28	35	23	23	22	22	81	532	415	128	46	32
10	29	27	23	23	22	22	104	553	422	114	45	35
11	28	32	24	23	22	21	126	608	394	133	46	38
12	31	31	23	23	23	21	135	507	354	140	48	37
13	31	22	22	23	23	21	146	618	341	136	46	36
14	32	20	23	24	22	21	136	531	316	130	46	34
15	31	24	23	23	22	21	130	618	313	116	44	33
16	29	23	23	23	22	21	135	603	295	114	42	33
17	27	22	23	23	22	21	157	590	264	107	42	33
18	28	25	23	23	22	21	181	610	266	98	41	32
19	27	26	23	23	22	21	180	601	282	100	41	34
20	28	25	22	21	22	21	198	561	278	96	40	39
21	27	25	22	19	22	21	243	521	271	89	40	39
22	27	26	22	18	22	21	314	493	248	85	38	37
23	27	25	22	18	22	21	379	514	227	80	36	35
24	27	24	23	19	22	21	370	557	234	77	35	35
25	27	24	23	20	22	21	302	590	219	76	35	33
26	27	23	23	22	21	21	268	629	197	73	35	33
27	28	24	23	22	21	22	260	639	172	68	35	32
28	29	22	23	22	21	23	293	588	159	72	35	32
29	29	21	23	22	-----	25	318	531	148	71	35	31
30	30	24	23	23	-----	27	282	536	136	67	35	32
31	28	-----	23	23	-----	32	-----	540	-----	63	35	-----
TOTAL	879	787	705	688	613	684	5,181	16,013	9,874	3,377	1,349	1,023
MEAN	28.4	26.2	22.7	22.2	22.1	22.1	173	517	329	109	43.5	34.1
MAX	32	35	24	24	23	32	379	639	529	152	61	39
MIN	27	23	21	18	21	21	35	248	136	63	35	31
CFSM	.30	.23	.24	.24	.24	.24	1.85	5.53	3.52	1.17	.47	.37
IN.	.35	.31	.28	.27	.25	.27	2.06	6.38	3.93	1.34	.54	.41
AC-FT	1,740	1,550	1,400	1,360	1,230	1,360	10,280	31,760	19,580	6,700	2,680	2,030

CAL YR 1968: TOTAL 20,337 MEAN 55.7 MAX 314 MIN 20 CFSM .60 IN 8.12 AC-FT 40,440
WTR YR 1969: TOTAL 41,178 MEAN 113 MAX 639 MIN 18 CFSM 1.21 IN 16.40 AC-FT 81,680

PEAK DISCHARGE (BASE, 220 CFS).--Apr. 23 (2200) 441 cfs (4.57 ft); May 26 (0330) 673 cfs, (5.75 ft).

MUD LAKE-LOST RIVER BASINS

13-1325. Big Lost River near Arco, Idaho

LOCATION.--Lat 43°35'00", long 113°16'10", in SW¼ sec.17, T.3 N., R.27 E., Butte County, on right bank 0.4 mile downstream from slough entering from left bank, and 4 miles southeast of Arco.

DRAINAGE AREA.--1,410 sq mi, approximately.

PERIOD OF RECORD.--August 1946 to September 1961, May 1966 to current year.

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.--18 years, 88.4 cfs (64,050 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,180 cfs Apr. 7 (gage height, 6.47 ft); minimum, 67 cfs Oct. 3 (gage height, 3.48 ft).

Period of record: Maximum discharge, 1,890 cfs July 5, 1967 (gage height, 7.68 ft); no flow on many days. Flood of June 29, 1965, reached a stage of 8.03 ft, from floodmarks (discharge, 2,500 cfs).

REMARKS.--Records good except those for Jan. 1 to Mar. 15, which are poor. Flow regulated by Mackay Reservoir (see sta 13-1260). Station is below all large diversions for irrigation in Big Lost River valley. About 43,000 acres of land irrigated by diversions from river and tributaries and by ground-water withdrawals above station. About 10,200 acres irrigated by subirrigation above Mackay Reservoir. Records of chemical analysis for the water year 1969 are published in Part 2 of this report.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-3, Nov. 30 to Dec. 31, Aug. 10 to Sept. 3; stage-discharge relation affected by ice Dec. 13-15, 18, 19, 21-25, Dec. 27 to Feb. 11, Feb. 15-21)

Oct. 1 to Dec. 31

Jan. 1 to Sept. 30

3.3	59	3.4	69	5.0	478
3.6	92	3.7	107	6.0	940
4.0	151	4.0	158	6.3	1,090
4.5	246	4.5	293		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	141	236	190	170	315	466	816	659	1,000	165	176
2	70	145	229	180	170	315	515	811	701	970	152	202
3	68	149	236	180	170	315	664	801	705	925	145	226
4	72	156	236	180	170	315	935	781	678	865	137	243
5	76	156	240	180	170	315	990	772	614	840	129	280
6	80	158	238	180	170	330	960	762	507	811	119	293
7	81	160	242	180	170	350	1,060	743	527	820	104	296
8	78	165	242	180	170	360	781	753	614	840	90	290
9	76	170	244	170	160	360	710	791	659	806	86	267
10	78	170	244	170	165	360	668	777	678	710	80	267
11	85	172	242	170	170	360	636	748	659	618	78	300
12	85	177	236	170	165	360	601	738	696	548	77	334
13	82	179	235	180	173	370	587	729	720	466	79	313
14	81	179	240	180	176	370	579	757	724	430	81	267
15	80	182	246	170	175	390	565	786	734	380	90	240
16	81	184	244	170	170	392	536	777	791	348	92	234
17	85	182	238	170	170	422	511	762	850	287	100	220
18	92	186	240	170	190	426	503	738	835	240	104	190
19	102	188	240	180	240	426	486	748	743	182	106	182
20	107	194	240	180	245	418	470	748	710	147	116	182
21	110	199	235	180	245	418	462	738	748	143	120	180
22	110	209	235	170	246	418	470	734	791	160	120	176
23	114	215	240	170	249	418	515	724	801	192	122	176
24	120	219	240	170	252	411	574	691	850	199	125	171
25	124	223	240	170	277	411	614	561	975	190	130	156
26	130	223	238	190	317	407	659	474	1,000	185	139	143
27	134	225	230	210	330	403	729	511	1,020	228	148	137
28	138	229	210	210	320	403	753	655	1,030	249	148	130
29	141	229	200	210	-----	407	777	720	1,040	255	156	129
30	141	236	200	190	-----	415	806	691	1,020	231	162	137
31	140	-----	200	170	-----	434	-----	678	-----	176	167	-----
TOTAL	3,034	5,600	7,256	5,570	5,795	11,814	19,582	22,515	23,079	14,441	3,667	6,537
MEAN	97.9	187	234	180	207	381	653	726	769	466	118	218
MAX	141	236	246	210	330	434	1,060	816	1,040	1,000	167	334
MIN	68	141	200	170	160	315	462	474	507	143	77	129
AC-FT	6,020	11,110	14,390	11,050	11,490	23,430	38,840	44,660	45,780	28,640	7,270	12,970
CAL YR 1968: TOTAL	32,449.6			MEAN 88.7		MAX 246	MIN 5.2	AC-FT 64,360				
WTR YR 1969: TOTAL	128,690			MEAN 353		MAX 1,060	MIN 68	AC-FT 255,600				

13-1350. Snake River below Lower Salmon Falls, near Hagerman, Idaho

LOCATION.--Lat 42°50'55", long 114°54'02", in NW¼ sec.2, T.7 S., R.13 E., Gooding County, on right bank 0.5 mile downstream from Lower Salmon Falls powerplant, 1 mile upstream from Big Wood River, 2.2 miles north of Hagerman, and at mile 572.4.

PERIOD OF RECORD.--October 1937 to current year. 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 (stadia levels). Prior to Jan. 3, 1950, at site 340 ft upstream.

AVERAGE DISCHARGE.--32 years, 8,553 cfs (6,197,000 acre-ft per year); 15-year base period (1952-67), 8,092 cfs.

EXTREMES.--Current year: Maximum discharge, 22,300 cfs Mar. 27 (gage height, 13.00 ft); minimum, 1,370 cfs July 26 (gage height, 3.55 ft); minimum daily, 5,060 cfs May 14.

Period of record: Maximum discharge, 31,200 cfs June 24, 1964 (gage height, 15.73 ft); minimum, probably less than 100 cfs Jan. 10, 11, 1950, when river was below intake pipes; minimum daily, 3,970 cfs July 8, 1951.

REMARKS.--Records excellent except those for period of no gage-height record, which are good. Flow regulated by American Falls Reservoir 141.6 miles upstream (see sta 13-0765). Diurnal fluctuation caused by hydroelectric plants upstream. At times, practically entire flow is diverted at Milner during irrigation seasons; only minor diversions below Milner.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

6.1	5,000	10.0	13,800
6.5	5,750	12.0	19,300
7.0	6,760	12.2	19,900
8.0	8,930		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,760	9,230	9,230	10,800	14,100	13,600	17,000	16,100	5,860	6,240	6,340	7,260
2	7,710	9,780	9,410	12,500	15,100	14,100	16,600	14,800	5,820	6,700	6,230	7,050
3	7,750	10,400	9,480	13,300	15,200	14,300	14,300	15,400	6,330	5,790	6,380	7,180
4	7,720	9,870	9,980	13,700	16,200	13,600	11,700	15,700	6,020	5,870	6,550	7,290
5	7,570	9,780	9,700	11,400	15,100	13,600	9,040	14,400	5,800	6,480	6,480	7,180
6	7,540	8,730	9,710	12,400	14,900	13,700	7,220	14,700	6,440	5,860	6,430	7,010
7	7,450	9,980	9,840	11,700	15,000	13,400	7,430	13,600	6,020	6,250	6,560	7,160
8	7,700	11,400	9,940	13,200	15,200	14,100	7,840	10,300	5,860	7,130	6,540	7,390
9	7,460	10,100	9,670	12,600	13,800	14,000	7,320	9,770	6,360	6,390	6,420	7,030
10	7,370	9,580	10,000	13,100	14,700	14,200	8,190	7,800	6,700	5,890	6,490	7,270
11	7,370	9,830	9,470	13,300	13,500	14,100	7,850	7,190	6,810	6,420	6,440	7,210
12	7,310	10,200	11,000	15,000	13,900	13,600	7,650	6,570	6,570	6,040	6,260	7,150
13	7,610	10,200	10,300	16,100	14,000	13,700	7,380	5,790	6,380	5,890	6,510	7,260
14	7,970	10,200	10,800	16,300	14,500	14,200	7,920	5,060	5,990	5,980	6,450	7,200
15	7,960	10,100	10,400	16,300	14,300	13,600	5,860	5,730	6,620	6,060	6,590	7,370
16	8,390	9,720	11,500	13,800	13,800	14,100	6,550	6,100	5,950	6,150	6,470	7,470
17	8,760	9,440	11,200	15,500	14,000	14,900	5,360	5,810	6,280	5,860	6,530	7,250
18	8,820	9,370	11,200	14,800	14,200	13,700	5,590	5,170	6,390	5,840	6,530	7,540
19	9,540	9,300	10,000	15,300	14,000	14,400	6,330	5,530	5,870	6,120	6,650	7,550
20	9,240	8,410	10,800	15,100	14,200	14,600	5,450	6,140	6,350	6,080	6,560	7,490
21	9,370	9,020	8,970	15,600	14,100	13,100	8,290	5,790	6,410	6,410	6,690	7,980
22	9,340	8,600	11,200	15,500	14,500	13,700	10,300	5,660	6,250	6,190	6,510	8,120
23	9,730	9,050	10,400	15,600	13,800	13,700	16,100	5,670	6,370	6,270	6,590	7,930
24	8,460	8,720	11,100	15,300	14,700	15,600	18,400	5,540	6,970	6,160	6,660	7,860
25	9,240	8,780	11,600	15,500	14,100	17,200	15,700	5,740	7,390	6,350	6,570	8,050
26	9,190	9,180	11,400	17,400	14,400	17,600	13,400	5,650	7,380	6,250	6,630	7,850
27	9,510	8,670	11,400	17,300	14,100	18,400	16,300	5,710	7,200	6,440	6,820	7,690
28	8,380	8,830	10,900	16,800	13,800	17,000	18,300	5,660	7,040	6,260	6,760	7,550
29	10,100	9,340	10,700	16,300	-----	14,300	19,800	5,690	6,460	6,420	6,820	7,600
30	8,900	8,590	10,700	14,900	-----	15,300	18,200	5,660	6,840	6,390	6,800	7,540
31	9,490	-----	11,100	14,900	-----	16,300	-----	5,780	-----	6,360	6,990	-----
TOTAL	260,710	284,400	323,100	451,300	403,200	451,700	327,370	254,210	192,730	192,540	203,250	223,480
MEAN	8,410	9,480	10,420	14,560	14,400	14,570	10,910	8,200	6,424	6,211	6,556	7,449
MAX	10,100	11,400	11,600	17,400	16,200	18,400	19,800	16,100	7,390	7,130	6,990	8,120
MIN	7,310	8,410	8,970	10,800	13,500	13,100	5,360	5,060	5,800	5,790	6,230	7,010
AC-FT	517,100	564,100	640,900	895,100	799,700	895,900	649,300	504,200	382,300	381,900	403,100	443,300
CAL YR 1968: TOTAL	2,918,030			MEAN 7,973		MAX 17,000	MIN 5,040	AC-FT 5,788,000				
WTR YR 1969: TOTAL	3,567,990			MEAN 9,775		MAX 19,800	MIN 5,060	AC-FT 7,077,000				

NOTE.--No gage-height record Dec. 13 to Jan. 27.

BIG WOOD RIVER BASIN

13-1355. Big Wood River near Ketchum, Idaho

LOCATION.--Lat 43°47'11" (revised), long 114°25'27" (revised), in sec.4, T.5 N., R.17 E. (unsurveyed), Blaine County, in Sawtooth National Forest, on left bank 0.35 mile upstream from North Fork, 8 miles northwest of Ketchum, and at mile 105.5.

DRAINAGE AREA.--137 sq mi. Mean altitude, 8,120 ft.

PERIOD OF RECORD.--May 1948 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,240 ft (from topographic map). Prior to Nov. 7, 1950, non-recording gage at site 560 ft upstream at different datum.

AVERAGE DISCHARGE.--21 years, 164 cfs (16.26 inches per year, 118,800 acre-ft per year); 15-year base period (1952-67), 159 cfs.

EXTREMES.--Current year: Maximum discharge, 1,360 cfs May 27 (gage height, 5.36 ft); minimum, 23 cfs Jan. 22 (gage height, 2.13 ft).

Period of record: Maximum discharge, 1,690 cfs May 24, 1967 (gage height, 5.92 ft); maximum gage height, 7.53 ft Jan. 20, 1964 (avalanche); minimum discharge, 8.5 cfs Mar. 18, 1966 (gage height, 2.08 ft), but may have been less at time of avalanche Jan. 20, 1964.

REMARKS.--Records good. Minor diversions for nonconsumptive uses on Boulder Creek. About 97 acre-ft of storage in ponds on Prairie Creek.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 23-28; stage-discharge relation affected by ice Jan. 28 to Feb. 17)

Oct. 1 to Apr. 22				Apr. 23 to Sept. 30			
2.2	30	3.5	287	2.5	61	4.0	482
2.4	49	4.0	467	2.7	93	5.0	1,090
2.7	93	4.2	555	3.0	154	5.3	1,310
3.0	154			3.5	288		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	68	56	59	51	48	87	420	955	267	135	84
2	74	67	48	60	50	50	93	389	900	268	131	83
3	74	70	63	51	49	51	107	377	918	276	128	82
4	73	72	71	56	49	51	119	407	1,000	270	124	82
5	72	62	69	57	49	51	137	519	1,120	269	122	83
6	72	60	52	60	50	52	162	660	1,130	302	122	81
7	72	65	48	58	49	47	152	788	1,080	289	119	80
8	70	65	59	43	50	48	145	838	939	268	115	79
9	68	71	52	39	50	45	181	943	913	261	113	79
10	68	64	59	48	50	43	225	1,050	900	258	110	84
11	68	68	62	46	50	44	249	1,110	818	259	110	90
12	104	76	51	50	52	45	267	1,130	734	260	110	93
13	96	64	39	53	52	47	297	1,110	681	252	107	87
14	92	54	52	54	49	48	284	1,110	644	244	105	83
15	88	72	61	57	50	50	267	1,040	617	233	102	82
16	83	68	57	48	50	52	271	970	573	226	100	84
17	77	62	45	49	46	54	312	950	522	213	100	83
18	79	70	48	46	45	55	367	1,050	506	207	99	81
19	75	68	55	49	46	51	373	1,040	499	199	97	90
20	75	65	47	51	50	45	359	970	484	193	94	106
21	73	65	37	45	54	47	412	867	477	187	93	96
22	73	67	40	39	57	51	554	834	453	182	91	87
23	72	64	54	46	56	53	688	921	426	177	91	85
24	72	57	58	41	53	46	640	1,050	446	171	89	83
25	72	66	59	48	47	48	505	1,180	395	165	87	80
26	72	53	60	51	50	55	426	1,290	359	161	87	79
27	69	61	57	47	47	59	408	1,290	330	155	88	76
28	69	52	54	50	44	61	437	1,170	308	159	87	75
29	69	57	42	49	-----	65	459	1,040	292	152	87	75
30	71	74	44	49	-----	73	429	1,040	275	146	87	74
31	70	-----	49	49	-----	85	-----	1,060	-----	140	86	-----
TOTAL	2,337	1,947	1,648	1,548	1,395	1,620	9,412	28,613	19,694	6,809	3,216	2,506
MEAN	75.4	64.9	53.2	49.9	49.8	52.3	314	923	656	220	104	83.5
MAX	104	76	71	60	57	85	688	1,290	1,130	302	135	106
MIN	68	52	37	39	44	43	87	377	275	140	86	74
CFSM	.55	.47	.39	.36	.36	.38	2.29	6.74	4.79	1.60	.76	.61
IN.	.63	.53	.45	.42	.38	.44	2.55	7.77	5.35	1.85	.87	.68
AC-FT	4,640	3,860	3,270	3,070	2,770	3,210	18,670	56,750	39,060	13,510	6,380	4,970
CAL YR 1968: TOTAL	40,069			MEAN 109		MAX 448	MIN 37	CFSM .80	IN 10.88	AC-FT 79,480		
WTR YR 1969: TOTAL	80,745			MEAN 221		MAX 1,290	MIN 37	CFSM 1.61	IN 21.92	AC-FT 160,200		

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-23	2000	4.65	766	5-27	0200	5.36	1,360
5-12	0100	5.15	1,200				

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LOCATION.--Lat 43°31'05", long 114°19'10", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.9, T.2 N., R.18 E., Blaine County, is the location of two gaging stations at Hailey, used for this combined record.

PERIOD OF RECORD.--July to December 1889, June 1915 to current year. Published as Wood River at Hailey in 1889.

Big Wood River: Water-stage recorder. Datum of gage is 5,297.23 ft above mean sea level, unadjusted.

July to December 1889 nonrecording gage at nearby site at different datum. June 11, 1915, to Nov. 15, 1934, nonrecording gages at bridge 35 ft upstream at different datum.

EXTREMES (Combined flow).--Current year: Maximum daily discharge, 4,040 cfs May 26; minimum daily, 126 cfs Dec. 22.

Period of record: Maximum daily discharge, 4,520 cfs May 25, 1958; minimum daily, 15 cfs Dec. 27, 1931.

(River only).--Current year: Maximum discharge, 4,310 cfs May 26 (gage height, 4.46 ft); minimum, 33 cfs Feb. 24 (gage height, -0.02 ft).

Period of record: Maximum discharge, 4,790 cfs May 25, 1967 (gage height, 5.72 ft); maximum gage height, 8.66 ft, present datum, June 12, 1921; no flow Sept. 15-23, Nov. 20, 22, 23, 1931, Oct. 25, 1937.

REMARKS.--Diversions above stations for irrigation of about 12,100 acres (1950 determination) of which about 1,800 acres are below stations. Storage above stations is negligible.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	221	215	176	171	172	160	387	1,740	2,840	934	421	255
2	218	211	150	175	165	158	435	1,630	2,670	970	404	246
3	214	219	160	167	167	162	505	1,600	2,730	1,040	355	246
4	212	234	175	170	165	158	573	1,600	2,900	991	355	244
5	210	214	193	173	167	162	632	1,830	3,140	962	386	250
6	208	199	172	179	170	166	735	2,140	3,160	1,000	369	241
7	206	204	159	180	168	155	719	2,570	3,010	1,030	351	225
8	205	204	171	162	170	156	708	3,000	2,790	938	342	228
9	202	214	168	151	171	148	796	3,360	2,690	900	347	233
10	203	205	174	157	170	140	967	3,650	2,660	898	349	248
11	209	210	184	158	172	139	1,080	3,790	2,510	921	347	256
12	244	225	167	170	176	144	1,150	3,890	2,280	966	353	269
13	281	209	134	178	174	144	1,270	3,750	2,240	936	340	258
14	270	173	148	178	170	149	1,260	3,660	2,040	894	334	253
15	260	191	166	178	171	162	1,230	3,380	1,990	834	323	249
16	248	199	175	165	170	165	1,220	3,070	1,860	805	316	254
17	235	172	144	160	158	167	1,370	3,110	1,670	736	310	251
18	235	195	150	151	156	168	1,520	3,580	1,650	695	317	245
19	229	198	160	168	156	165	1,570	3,460	1,660	652	314	262
20	228	192	159	189	164	158	1,530	3,130	1,610	623	304	297
21	229	192	137	199	171	158	1,680	2,830	1,600	608	294	317
22	224	207	126	165	172	161	2,090	2,750	1,520	603	293	288
23	218	199	132	139	175	167	2,620	2,940	1,400	561	293	281
24	216	193	166	138	170	156	2,590	3,300	1,500	535	282	273
25	217	203	171	138	166	158	2,150	3,710	1,380	513	280	265
26	218	173	171	165	161	167	1,900	4,040	1,240	517	274	254
27	215	190	168	166	150	191	1,760	3,950	1,140	484	267	249
28	216	178	170	169	145	220	1,800	3,510	1,070	497	265	244
29	218	155	156	175	-----	247	1,890	3,070	1,020	494	264	244
30	222	200	144	170	-----	287	1,750	3,030	972	467	262	246
31	218	-----	160	165	-----	345	-----	3,130	-----	441	262	-----
TOTAL	6,949	5,373	4,986	5,169	4,662	5,383	39,887	94,200	60,842	23,445	10,043	7,671
MEAN	224	199	161	167	167	174	1,330	3,039	2,028	756	324	256
MAX	281	234	193	199	176	345	2,620	4,040	3,160	1,040	421	317
MIN	202	155	126	138	145	139	387	1,600	972	441	262	225
AC-FT	13,780	11,850	9,890	10,250	9,250	10,680	79,1					

BIG WOOD RIVER BASIN

13-1410. Big Wood River near Bellevue, Idaho

LOCATION.--Lat 43°19'40", long 114°20'25", in NW¼NE¼ sec.20, T.1 S., R.18 E., Blaine County, on right bank at downstream end of Mahoney Flat, 1.5 miles upstream from flow line of Magic Reservoir, 2.8 miles upstream from Camas Creek, 10.5 miles southwest of Bellevue, and at mile 65.7.

DRAINAGE AREA.--824 sq mi.

PERIOD OF RECORD.--July 1911 to current year (no winter records prior to October 1943 except water years 1916, 1921-22, 1940-41).

GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft (from topographic map). Prior to July 8, 1921, at site 0.1 mile downstream at different datum. July 8, 1921, to Oct. 5, 1954, at site 0.2 mile upstream at different datum. Oct. 6, 1954, to Oct. 25, 1965, at site 1 mile upstream at different datum.

AVERAGE DISCHARGE.--31 years (1915-16, 1921-22, 1939-41, 1942-69), 295 cfs (213,700 acre-ft per year); 15-year base period (1952-67), 280 cfs.

EXTREMES.--Current year: Maximum discharge, 3,540 cfs May 26 (gage height, 5.05 ft); minimum daily, 65 cfs Jan. 24, 25.

Period of record: Maximum discharge, 4,130 cfs May 25, 1956; maximum gage height, 6.43 ft May 12, 1958, site and datum then in use; minimum discharge recorded, 7 cfs Apr. 14, 1932 (gage height, 1.10 ft, site and datum then in use).

REMARKS.--Records good except those for periods of no gage-height record and April to June, which are fair. Divisions for irrigation of about 36,400 acres (1950 determination) above station. Storage above station is negligible. Records of chemical analysis for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 6-22, May 22 to June 9, June 28 to July 20, Aug. 4
Sept. 4, Sept. 26-30; stage-discharge relation affected by ice Dec. 29 to Jan. 1, Jan.
29 to Feb. 2, Feb. 4, 5, 7, 27)

1.6	53	3.0	512
1.8	81	3.5	885
2.0	118	4.0	1,420
2.3	197	5.0	3,050
2.6	307	5.2	3,430

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	95	108	75	80	70	280	1,850	2,560	914	136	104
2	106	95	106	80	80	73	350	1,710	2,390	876	130	104
3	104	98	108	80	80	79	420	1,590	2,270	808	130	100
4	102	108	114	80	80	82	500	1,520	2,370	808	125	98
5	100	104	114	80	76	84	560	1,710	2,690	784	123	98
6	98	100	114	80	76	86	630	1,970	2,710	784	118	96
7	96	98	114	80	76	86	700	2,350	2,860	923	112	96
8	96	98	116	75	76	86	840	2,650	2,670	834	110	96
9	98	98	116	70	76	86	1,090	2,920	2,520	781	112	95
10	100	98	116	70	75	86	1,120	3,030	2,430	736	112	102
11	100	98	118	70	75	86	1,280	3,050	2,410	752	118	110
12	102	98	116	75	75	90	1,360	3,180	2,130	776	125	110
13	114	98	104	85	74	90	1,360	3,140	2,000	792	127	108
14	118	96	102	85	75	92	1,320	3,110	1,940	776	127	108
15	120	98	102	85	76	100	1,260	3,030	1,940	698	125	108
16	118	104	104	80	75	105	1,190	2,840	1,720	596	120	108
17	116	102	104	75	75	105	1,340	2,750	1,480	500	120	108
18	110	100	109	70	75	105	1,520	2,880	1,370	371	127	104
19	93	102	114	80	74	100	1,650	3,010	1,370	241	127	98
20	90	104	118	90	74	100	1,670	2,860	1,400	214	123	112
21	90	104	90	100	75	100	1,810	2,560	1,310	217	118	123
22	90	106	70	85	72	100	2,190	2,320	1,240	223	118	114
23	90	108	70	70	72	100	2,840	2,440	1,150	217	116	112
24	90	108	85	65	70	100	3,050	2,780	1,210	185	114	114
25	90	108	90	65	70	100	2,750	3,160	1,210	159	112	112
26	90	108	80	70	70	105	2,350	3,430	1,090	157	108	108
27	90	106	75	80	69	120	2,050	3,350	1,040	154	104	106
28	93	106	75	80	69	140	2,020	3,090	1,010	151	102	104
29	96	102	75	80	-----	160	2,080	2,780	1,000	144	104	102
30	95	104	70	80	-----	190	1,920	2,590	970	146	104	100
31	95	-----	70	80	-----	230	-----	2,690	-----	141	106	-----
TOTAL	3,098	3,022	3,067	2,420	2,090	3,236	43,500	82,340	54,460	15,858	3,653	3,158
MEAN	99.9	102	98.9	78.1	74.6	104	1,450	2,656	1,815	512	118	105
MAX	120	108	118	100	80	230	3,050	3,430	2,860	923	136	123
MIN	90	95	70	65	69	70	280	1,520	970	141	102	95
AC-FT	6,140	6,050	6,080	4,800	4,150	6,420	86,280	163,300	108,000	31,450	7,250	6,260

CAL YR 1968: TOTAL 54,655 MEAN 149 MAX 914 MIN 53 AC-FT 108,400
WTR YR 1969: TOTAL 219,932 MEAN 303 MAX 3,430 MIN 65 AC-FT 436,200

NOTE.--No gage-height record Dec. 18 to Jan. 31, Mar. 2 to Apr. 10.

13-1415. Camas Creek near Blaine, Idaho

LOCATION.--Lat 43°19'59", long 114°32'27", in NW¼SE¼ sec.15, T.1 S., R.16 E., Camas County, on left bank 0.2 mile north of Macon siding on Hill City branch of Union Pacific Railroad, 0.2 mile downstream from Willow Creek, 2.6 miles upstream from backwater of Magic Reservoir, 4 miles southeast of Blaine, and at mile 7.1.

DRAINAGE AREA.--648 sq mi. Mean altitude, 5,600 ft.

PERIOD OF RECORD.--May 1912 to September 1921 and April 1923 to October 1925 (fragmentary), March 1926 to September 1944 (no winter records), October 1944 to current year. Published as Malad River near Blaine 1912-14.

GAGE.--Water-stage recorder. Altitude of gage is 4,870 ft (by barometer). Prior to June 22, 1966, at site 600 ft downstream at datum 0.66 ft lower.

AVERAGE DISCHARGE.--25 years, 178 cfs (129,000 acre-ft per year); 15-year base period (1952-67), 165 cfs.

EXTREMES.--Current year: Maximum discharge, 6,600 cfs Apr. 10 (gage height, 15.50 ft); minimum, 3.5 cfs Aug. 28, 29, Sept. 3-6 (gage height, 3.17 ft).

Period of record: Maximum discharge recorded, 9,780 cfs Apr. 8, 1943; maximum gage height, 16.2 ft (site and datum then in use) Feb. 3, 1963, from floodmark; minimum discharge recorded, 1.2 cfs Aug. 11, 12, 1959; minimum gage height, 1.04 ft (site and datum then in use) Aug. 23, 25, 1963.

REMARKS.--Records good. Flow regulated by Twin Lakes Reservoir on Lake Creek (capacity, 31,240 acre-ft) and three minor reservoirs (combined capacity, 580 acre-ft). Water diverted for irrigation of about 9,300 acres (1950 determination) above station.

REVISIONS.--WSP 1217: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 23-24)

Oct. 1 to Apr. 24				Apr. 25 to Sept. 30			
3.1	5.9	5.0	356	3.1	2.2	4.0	77
3.3	13	6.0	723	3.2	4.3	4.5	172
3.5	26	8.0	1,640	3.3	7.7	5.0	319
3.7	45	10	2,770	3.5	19	7.0	1,090
4.0	88	14	5,410	3.7	37	8.8	1,960
4.5	195	14.2	5,560				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	8.6	17	15	41	36	160	952	336	109	9.2	3.7
2	6.8	8.5	15	17	38	35	290	876	295	102	8.7	3.7
3	6.8	9.7	17	15	40	37	566	824	272	93	8.7	3.7
4	6.8	13	18	15	36	37	1,020	780	250	87	9.7	3.5
5	6.5	11	18	17	36	38	1,780	776	250	81	7.7	3.5
6	6.5	11	17	20	38	37	2,780	832	253	82	7.4	3.7
7	7.1	12	17	21	35	35	3,160	900	250	100	7.0	3.7
8	7.4	12	19	17	36	35	3,950	948	241	99	7.0	3.9
9	7.4	15	17	16	38	35	4,430	988	238	89	7.4	4.1
10	7.1	17	16	18	38	34	5,520	1,010	244	74	7.7	4.6
11	7.4	17	16	18	37	36	5,470	1,010	299	67	7.7	5.3
12	8.3	17	11	19	36	37	4,850	988	295	61	6.3	5.7
13	9.7	18	13	21	36	38	5,010	956	269	55	5.0	6.3
14	9.3	17	15	25	34	39	5,030	944	247	48	5.0	7.0
15	8.9	17	17	25	38	41	4,560	908	235	41	5.0	5.7
16	8.6	17	15	23	38	41	4,010	852	247	33	5.0	5.7
17	8.9	15	12	22	35	43	3,800	800	218	32	4.6	7.0
18	8.6	17	13	19	35	43	3,730	760	182	28	5.0	7.7
19	8.9	17	15	21	36	43	3,510	744	161	26	5.3	8.2
20	8.6	17	15	35	37	43	2,730	720	163	23	5.3	12
21	8.9	18	13	59	38	44	2,330	672	154	21	5.3	19
22	8.9	18	13	56	37	46	2,060	612	146	19	5.0	13
23	8.9	20	15	41	37	48	2,070	559	140	18	4.6	14
24	8.9	20	15	40	38	48	2,090	525	142	16	4.6	14
25	8.9	17	14	48	38	50	1,950	511	146	15	3.9	13
26	9.3	18	14	48	37	53	1,640	515	140	15	3.9	11
27	9.3	20	14	45	33	59	1,400	522	130	14	3.7	8.2
28	9.3	17	12	49	36	69	1,190	497	124	14	3.7	8.7
29	9.3	15	11	44	-----	82	1,070	450	122	13	3.7	8.2
30	8.9	18	11	44	-----	99	1,020	401	117	12	3.7	8.2
31	8.9	-----	14	43	-----	125	-----	363	-----	9.7	3.7	-----
TOTAL	255.9	467.9	459	916	1,033	1,486	83,176	23,195	6,306	1,496.7	180.5	226.0
MEAN	8.25	15.5	14.8	29.5	36.9	47.9	2,773	748	210	48.3	5.82	7.53
MAX	9.7	20	19	59	41	125	5,520	1,010	336	109	9.7	19
MIN	6.5	8.6	11	15	33	34	160	363	117	9.7	3.7	3.5
AC-FT	508	928	910	1,820	2,050	2,950	165,000	46,010	12,510	2,970	358	448

CAL YR 1968: TOTAL 19,547.7 MEAN 53.4 MAX 394 MIN 2.4 AC-FT 38,770
WTR YR 1969: TOTAL 119,198.0 MEAN 327 MAX 5,520 MIN 3.5 AC-FT 236,400

PEAK DISCHARGE (BASE, 500 CFS).--Apr. 10 (2000) 6,600 cfs (15.50 ft); May 11 (0100) 1,030 cfs (6.87 ft).

BIG WOOD RIVER BASIN

13-1420. Magic Reservoir near Richfield, Idaho

LOCATION.--Lat 43°15'19", long 114°21'25", in SE¼NE¼NE¼ sec.18, T.2 S., R.18 E., Blaine County, at dam on Big Wood River, 18 miles northwest of Richfield, and at mile 60.0.

DRAINAGE AREA.--1,600 sq mi, approximately.

PERIOD OF RECORD.--February 1909 to current year. Monthend contents only for some periods, published in WSP 1317.

GAGE.--Nonrecording 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. Datum of gages prior to Oct. 1, 1942, was 4,800 ft lower.

EXTREMES.--Current year: Maximum contents observed, 195,400 acre-ft May 11-13 (gage height, 136.0 ft); minimum observed, 33,600 acre-ft Oct. 6 (gage height, 71.6 ft).

Period of record: Maximum contents observed, 195,400 acre-ft May 11-13, 1969 (gage height, 136.0 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 is 191,500 acre-ft between gage heights 21.4 ft (2.9 ft above bottom of outlet pipe) and 135.0 ft (top of 5-ft flashboards). Dead storage unknown. Water is used for irrigation of about 68,000 acres (1952 determination) of land in Carey Act project of Big Wood Canal Co. About 45,000 acres (1952 determination) irrigated by diversions from river and tributary streams above reservoir. Figures given herein represent usable contents including bank storage. Gage read in the morning.

COOPERATION.--Gage readings and capacity table furnished by Water District 7AB.

REVISIONS.--WSP 1217: Drainage area.

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

70.0	31,200	100.0	87,700
80.0	47,700	120.0	139,500
90.0	66,800	136.0	195,400

CONTENTS, IN ACRE-FT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37,400	40,400	45,700	54,700	63,600	70,600	64,000	180,400	191,500	193,100	167,200	119,500
2	36,400	40,700	46,100	54,900	63,800	70,800	63,000	181,500	191,100	192,700	165,500	118,200
3	35,800	41,000	46,300	54,900	64,000	71,000	61,700	182,600	190,700	192,300	164,100	116,800
4	34,700	41,600	46,600	55,100	64,400	71,200	61,700	183,000	190,300	192,300	162,400	115,300
5	33,800	41,600	47,000	55,300	64,600	71,400	62,800	183,800	190,300	192,300	160,600	113,900
6	33,600	41,700	47,300	55,500	64,800	71,600	66,200	183,800	190,700	191,500	158,900	112,600
7	33,800	42,100	47,700	55,900	65,200	72,000	72,400	186,800	191,500	192,300	156,900	111,400
8	34,100	42,400	48,100	56,100	65,400	72,200	78,600	189,500	191,900	192,300	155,300	110,300
9	34,400	42,600	48,200	56,200	65,600	72,600	86,600	192,700	191,500	191,900	153,600	109,000
10	34,700	42,800	48,600	56,400	65,800	73,000	96,000	194,600	191,500	191,900	152,000	107,800
11	35,000	42,900	48,800	56,600	66,200	73,200	108,800	195,400	191,500	191,500	150,400	106,800
12	35,300	43,300	49,200	56,800	66,400	73,400	119,800	195,400	191,500	191,500	148,800	105,800
13	35,600	43,600	49,300	57,200	66,800	73,400	129,700	195,400	191,100	191,100	147,200	104,500
14	36,000	44,000	49,700	57,400	67,000	73,600	140,100	194,600	190,700	190,700	145,600	103,500
15	36,300	44,000	50,100	57,600	67,200	73,400	149,700	193,800	191,100	190,300	144,100	102,500
16	36,600	44,300	50,300	57,800	67,600	73,200	157,900	193,500	192,300	189,900	142,500	101,300
17	36,900	44,500	50,600	58,000	67,800	73,000	164,400	193,100	192,700	189,200	141,000	100,300
18	37,200	44,100	51,000	58,200	68,000	71,800	170,800	193,100	192,700	188,400	139,500	99,600
19	37,400	43,800	51,200	58,500	68,200	70,400	177,400	193,100	192,300	187,200	137,700	98,700
20	37,800	43,100	51,700	58,900	68,400	68,000	180,000	193,100	192,300	186,100	136,200	97,700
21	37,900	42,600	52,100	59,300	68,600	64,800	180,000	192,700	192,300	184,500	135,100	97,000
22	38,200	42,600	52,300	59,700	68,800	61,900	180,000	192,300	191,900	183,400	133,600	96,300
23	38,400	42,800	52,500	60,100	69,200	60,100	180,000	191,500	191,500	181,900	132,200	95,600
24	38,500	43,400	52,800	60,700	69,600	58,700	180,700	191,500	192,300	180,400	130,800	94,600
25	38,700	44,000	53,200	61,100	69,800	59,100	180,700	191,500	192,700	179,200	129,400	93,900
26	39,000	44,300	53,400	61,700	70,000	59,700	180,400	191,900	193,100	177,400	127,700	93,200
27	39,200	44,500	53,600	62,000	70,200	60,100	179,200	192,700	193,100	175,900	126,300	92,500
28	39,400	44,800	54,000	62,400	70,400	60,700	178,100	193,100	193,100	174,400	124,700	91,600
29	39,700	45,200	54,200	62,600	-----	61,300	177,700	193,100	193,100	172,600	123,300	90,700
30	39,900	45,400	54,300	62,800	-----	61,900	178,900	191,900	193,100	171,200	122,200	90,000
31	40,200	-----	54,500	63,200	-----	62,800	-----	191,500	-----	169,400	120,800	-----
(†)	75.7	78.7	83.7	88.2	91.8	88.0	131.7	135.0	135.4	129.1	-	101.0
(‡)	+2,000	+5,200	+9,100	+8,700	+7,200	-7,600	+116,100	+12,600	+1,600	-23,700	-48,600	-30,800
MAX	40,200	45,400	54,500	63,200	70,400	73,600	180,700	195,400	193,100	193,100	167,200	119,500
MIN	33,600	40,400	45,700	54,700	63,600	58,700	61,700	180,400	190,300	169,400	120,800	90,000

CAL YR 1968..... ‡ -53,000

WTR YR 1969..... ‡ +51,800

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

13-1425. Big Wood River below Magic Dam, near Richfield, Idaho

LOCATION.--Lat 43°15'00", long 114°21'30", in NE¼SE¼ sec.18, T.2 S., R.18 E., Blaine County, on right bank 0.5 mile downstream from Magic Dam, 18 miles northwest of Richfield, and at mile 59.5.

DRAINAGE AREA.--1,600 sq mi, approximately.

PERIOD OF RECORD.--April 1911 to current year (no winter records 1912).

GAGE.--Water-stage recorder. Altitude of gage is 4,665 ft (by barometer).

AVERAGE DISCHARGE.--57 years (1912-69), 445 cfs (322,400 acre-ft per year); 15-year base period (1952-67), 480 cfs.

EXTREMES.--Current year: Maximum discharge, 5,090 cfs May 13 (gage height, 9.22 ft); minimum, 2.0 cfs Nov. 9 (gage height, 1.82 ft).

Period of record: Maximum discharge, 10,000 cfs Apr. 26, 1952 (gage height, 15.68 ft, from floodmark); no flow Feb. 3, 1915.

REMARKS.--Records good. Flow regulated by Magic Reservoir 0.5 mile upstream (see sta 13-1420), Twin Lakes Reservoir on tributary of Camas Creek (capacity, 31,240 acre-ft), and smaller reservoirs having combined capacity of about 680 acre-ft. Diversions for irrigation of about 47,100 acres (1950 determination) above station.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 5 to Nov. 16, July 18 to Aug. 4)

Oct. 1 to Mar. 16				Mar. 17 to Sept. 30			
1.7	1.6	2.5	93	1.7	1.9	3.5	392
1.8	3.6	3.0	201	1.8	4.0	4.0	627
1.9	6.8	3.5	357	1.9	7.8	5.0	1,260
2.0	14	4.0	584	2.0	15	7.0	3,110
2.1	26			2.2	42	9.0	4,890
				2.5	95	9.1	4,980
				3.0	218		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	579	2.6	3.6	3.9	3.9	5.5	619	2,320	3,000	1,030	1,030	781
2	579	2.6	3.4	3.9	4.2	5.2	1,670	2,310	2,880	1,000	1,030	758
3	584	2.8	3.6	3.9	4.2	5.5	1,660	2,300	2,730	988	1,000	741
4	579	2.6	3.9	3.9	4.2	5.2	1,660	2,300	2,620	916	982	741
5	381	2.6	3.6	4.2	4.2	5.5	1,680	2,200	2,580	898	968	730
6	3.0	2.6	3.9	4.2	4.5	5.5	1,720	1,870	2,610	892	962	724
7	3.0	2.6	3.9	3.9	4.2	5.2	1,770	1,880	2,620	892	956	718
8	3.4	2.8	3.9	4.2	4.5	5.2	1,810	1,930	2,670	936	936	718
9	3.4	2.6	4.2	4.2	4.5	5.2	1,850	2,620	2,630	923	910	702
10	3.6	2.6	4.2	4.2	4.9	5.2	1,930	3,520	2,520	910	898	669
11	3.6	2.6	3.9	4.2	4.9	5.2	1,990	3,920	2,460	904	898	659
12	3.9	2.4	3.9	4.2	5.5	5.5	2,040	4,280	2,440	936	892	659
13	4.2	2.2	4.2	4.2	5.2	124	2,080	4,660	2,380	930	880	643
14	4.2	2.4	4.2	4.5	5.2	222	2,140	4,500	1,860	923	880	632
15	4.2	2.6	4.5	4.5	5.8	224	2,180	4,250	1,420	930	880	632
16	4.2	145	4.2	4.5	5.2	224	2,210	4,020	1,510	956	874	612
17	4.5	313	4.2	4.5	5.2	584	2,230	3,820	1,580	975	868	581
18	4.5	431	4.2	4.2	5.2	910	2,380	3,700	1,560	962	868	581
19	4.2	431	4.5	4.5	4.9	1,110	3,720	3,760	1,520	962	838	581
20	3.6	216	4.2	4.9	5.2	1,600	4,500	3,690	1,510	962	827	581
21	3.6	4.2	4.2	5.2	5.2	1,590	4,440	3,520	1,530	956	827	581
22	3.4	3.6	5.5	4.5	5.2	1,200	4,390	3,250	1,510	994	838	561
23	3.6	3.6	4.9	4.2	6.2	804	4,590	3,060	1,070	1,030	850	537
24	3.6	3.6	5.2	4.2	5.8	338	4,910	3,000	1,030	1,030	850	537
25	3.6	3.4	5.2	4.2	5.5	3.2	4,900	3,050	1,120	1,020	850	542
26	3.4	3.6	4.9	4.5	5.5	3.0	4,530	3,340	1,150	1,010	844	547
27	3.2	3.6	4.5	4.5	5.2	3.0	4,090	3,610	1,140	1,010	827	547
28	3.0	3.6	4.2	4.5	5.2	3.2	3,290	3,620	1,120	1,010	798	542
29	2.8	3.6	3.9	4.5	-----	3.6	3,020	3,520	1,100	1,020	786	542
30	2.6	3.6	3.9	4.2	-----	4.4	2,320	3,330	1,060	1,030	786	552
31	2.6	-----	4.2	4.2	-----	4.8	-----	3,070	-----	1,020	786	-----
TOTAL MEAN	2,794.9	1,611.0	130.8	133.4	139.4	9,019.1	82,319	100,220	56,930	29,955	27,419	18,931
MAX	584	431	5.5	5.2	6.2	1,600	4,910	4,660	3,000	1,030	1,030	781
MIN	2.6	2.2	3.4	3.9	3.9	3.0	619	1,870	1,030	892	786	537
AC-FT	5,540	3,200	259	265	277	17,890	163,300	198,800	112,900	59,410	54,380	37,550

CAL YR 1968: TOTAL 109,744.2 MEAN 300 MAX 941 MIN 2.2 AC-FT 217,700
WTR YR 1969: TOTAL 329,602.6 MEAN 903 MAX 4,910 MIN 2.2 AC-FT 653,800

LOCATION.--Lat 43°29'30", long 114°03'30", about center of sec.22, T.2 N., R.20 E., Blaine County, 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, 13.5 miles northwest of Carey, and at mile 73.0.

PERIOD OF RECORD.--October 1958 to current year.

AVERAGE DISCHARGE.--11 years, 154 cfs (111,600 acre-ft per year).

Period of record: Maximum discharge, 2,480 cfs Apr. 22, 1969 (gage height, 7.01 ft); minimum, 16 cfs Aug. 20, 1961 (gage height, 1.38 ft); minimum gage height, 1.20 ft Sept. 10, 11, 1966.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 25-30; stage-discharge relation affected by ice Nov. 26-29,
Dec. 1-3, 6-7, 12-13, 16-18, 20-22, 27-31, Jan. 3-4, 8-11, 17-18, 23-25, Jan. 29 to Feb. 5,
Feb. 7-8, 14, 17-20, Feb. 26 to Mar. 5, Mar. 12-17, 20-22, 25)

Oct. 1 to Apr. 24				Apr. 25 to Sept. 30			
1.3	34	4.0	672	1.5	56	4.0	695
1.5	56	5.0	1,120	2.0	124	5.0	1,210
2.0	124	6.0	1,690	2.5	219	6.0	1,850
3.0	332	7.0	2,440	3.0	340		

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	59	59	68	82	72	262	920	736	298	127	64
2	61	59	50	68	80	72	310	855	691	298	122	61
3	61	79	50	64	80	72	407	794	695	332	118	59
4	61	87	61	63	78	72	507	821	731	306	116	61
5	59	73	67	65	78	72	559	950	790	300	107	61
6	62	55	54	65	80	73	726	1,100	835	296	99	59
7	62	73	52	65	73	68	764	1,260	767	326	94	57
8	64	72	61	58	75	70	764	1,400	671	293	91	57
9	64	74	62	56	76	70	928	1,520	635	278	91	58
10	62	70	61	56	75	70	1,130	1,580	667	283	88	80
11	63	74	62	59	75	70	1,300	1,580	675	298	90	73
12	67	72	50	67	73	70	1,290	1,550	575	313	94	69
13	69	45	45	70	75	72	1,400	1,500	543	306	88	67
14	78	40	49	75	74	72	1,270	1,470	514	290	86	62
15	74	59	61	73	75	72	1,140	1,370	518	266	82	62
16	70	57	58	68	74	72	1,180	1,250	496	259	83	59
17	71	58	47	64	70	72	1,330	1,230	448	246	83	63
18	79	55	42	62	70	74	1,530	1,300	440	232	82	63
19	76	58	59	68	70	73	1,370	1,230	451	223	78	67
20	75	59	60	86	72	72	1,360	1,130	458	211	78	92
21	74	59	50	91	75	72	1,420	991	437	206	75	86
22	74	71	50	83	74	74	1,820	935	403	194	74	75
23	73	59	61	76	74	76	2,150	965	379	182	71	73
24	73	57	65	78	73	76	1,790	1,040	440	180	70	70
25	73	57	64	78	73	76	1,340	1,110	437	172	70	58
26	73	59	61	80	70	82	1,110	1,200	412	157	69	68
27	73	55	57	80	68	94	1,020	1,130	376	148	65	65
28	71	54	58	82	70	114	1,030	975	364	143	65	63
29	71	54	55	78	-----	138	1,070	850	332	141	67	63
30	73	59	60	78	-----	174	965	835	316	138	67	65
31	71	-----	60	78	-----	234	-----	840	-----	132	65	-----
TOTAL	2,140	1,990	1,751	2,202	2,093	2,640	33,242	35,681	16,232	7,447	2,655	1,990
MEAN	69.0	66.3	56.5	71.0	74.8	85.2	1,108	1,151	541	240	85.6	66.3
MAX	79	37	67	91	82	234	2,150	1,580	835	332	127	92
MIN	59	40	42	56	68	68	262	794	316	132	65	57
AC-FT	4,240	3,990	3,470	4,370	4,150	5,240	65,930	70,770	32,200	14,770	5,270	3,950
CAL YR 1968: TOTAL	40,588		MEAN 111		MAX 455		MIN 38		AC-FT 80,700			
WTR YR 1969: TOTAL	110,363											

13-1482. Little Wood Reservoir near Carey, Idaho

LOCATION.--Lat 43°25'30", long 114°01'30", in SW¼ sec.12 (revised), T.1 N., R.20 E., Blaine County, at gate-control structure near right end of dam on Little Wood River, 8.5 miles northwest of Carey, and at mile 71.0.

DRAINAGE AREA.--279 sq mi.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Nonrecording gage. Datum of gage is 5,100 ft above mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents observed, 30,400 acre-ft May 16, 19; maximum gage height observed, 138.12 ft May 16; minimum contents observed, 5,300 acre-ft Apr. 6 (gage height, 75.74 ft).

Period of record: Maximum contents observed, 30,940 acre-ft June 10, 1963 (gage height, 138.99 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. Storage began Feb. 12, 1941. 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. Contents shown for days when readings were furnished and at monthend. Readings are made at various times of the day.

COOPERATION.--Gage readings furnished by Water District 11C. Capacity table furnished by Bureau of Reclamation.

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

75.5	5,290	100.0	12,500
76.0	5,410	120.0	20,900
80.0	6,370	138.0	30,400
90.0	9,160		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11,500	-	13,800	15,200	17,400	16,400	7,300	25,300	29,800	30,100	23,000	13,200
2	11,500	-	-	-	-	-	6,200	25,000	29,800	30,300	22,600	13,200
3	11,400	-	-	-	-	-	5,600	24,700	29,700	30,300	22,100	13,100
4	11,400	-	-	15,500	-	-	5,500	24,400	29,800	30,200	21,700	13,000
5	11,300	-	-	-	-	-	5,400	24,100	30,100	30,200	21,200	12,900
6	11,200	-	14,100	-	17,300	-	5,300	24,000	30,200	30,100	20,600	12,700
7	11,200	13,400	-	-	-	-	7,100	24,100	30,100	30,200	20,000	12,600
8	11,200	-	-	-	-	15,600	7,100	24,300	30,100	30,200	19,400	12,500
9	11,200	-	14,200	-	-	15,300	7,100	24,700	30,000	30,200	18,800	12,300
10	11,200	-	-	15,900	-	-	7,400	25,800	30,100	30,100	18,400	12,200
11	11,200	-	-	-	-	-	8,200	26,800	30,300	30,200	18,200	12,100
12	11,200	-	-	-	16,900	14,400	9,100	27,800	30,200	30,200	17,900	11,900
13	11,200	-	14,400	-	-	-	10,000	28,700	30,100	30,200	17,600	11,800
14	11,200	-	-	-	-	14,100	10,900	29,500	30,100	30,200	17,300	-
15	11,300	-	-	-	-	-	11,500	30,200	30,100	30,200	17,000	-
16	11,300	-	-	-	-	13,900	12,700	30,400	30,200	30,100	16,500	-
17	11,300	14,000	-	16,400	-	-	13,500	30,300	30,000	29,900	16,400	-
18	11,400	-	-	-	-	-	14,100	30,300	30,100	29,600	16,100	-
19	11,400	-	-	-	16,600	-	15,200	30,400	30,100	29,000	15,800	11,600
20	11,500	-	-	-	-	-	16,900	30,300	30,200	28,600	15,500	11,600
21	11,600	-	-	-	-	13,200	17,500	30,200	30,200	28,200	15,200	-
22	11,800	-	-	-	-	12,900	18,500	30,100	30,200	27,800	15,000	-
23	11,900	-	-	-	-	-	21,500	30,000	30,100	27,300	14,400	-
24	12,200	-	-	-	-	11,100	23,200	29,900	30,200	26,800	14,300	-
25	12,400	-	-	-	-	-	24,500	29,900	30,200	26,400	14,100	-
26	12,400	-	-	-	-	10,700	25,200	30,000	30,200	25,800	13,900	11,600
27	12,600	-	-	17,300	16,400	10,400	25,400	30,200	30,100	25,200	13,800	-
28	12,700	-	-	-	16,400	-	25,400	30,000	30,100	24,700	13,600	-
29	12,700	-	-	-	-	9,200	25,400	29,800	30,000	24,200	13,400	-
30	12,900	13,800	-	-	-	-	25,500	29,400	30,000	23,600	13,400	11,600
31	13,000	-	15,200	17,400	-	8,300	-	29,200	-	23,400	13,300	-
(†)	101.39	103.60	-	112.28	-	87.26	129.24	135.95	137.40	125.13	102.28	97.40
(‡)	+1,490	+800	+1,400	+2,200	-1,000	+8,100	+17,200	+3,700	+800	-6,600	-10,100	-1,700
MAX	13,000	14,000	15,200	17,400	17,400	16,400	25,500	30,400	30,300	30,300	23,000	13,200
MIN	11,200	-	-	-	-	-	5,300	24,000	29,700	23,400	13,300	-

CAL YR 1968..... † +430

WTR YR 1969..... ‡ +90

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

12-1485. Little Wood River near Carey, Idaho

LOCATION.--Lat 43°23'20", long 114°00'99", in E½ sec.30, T.1 N., R.21 E., Blaine County, on right bank, 0.3 mile upstream from West Canal, 1.3 miles upstream from East Canal, 2 miles downstream from Little Fish Creek, 3 miles downstream from Little Wood Reservoir, 6 miles northwest of Carey, and at mile 68.0.

DRAINAGE AREA.--312 sq mi.

PERIOD OF RECORD.--April 1904 to May 1905 (gage heights and discharge measurements only), September 1926 to November 1942, April 1943 to current year. 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, nonrecording gage, Sept. 20, 1926, to Apr. 22, 1938, water-stage recorder, and Apr. 23 to Aug. 17, 1938, nonrecording gage, all at datum 0.74 ft higher.

AVERAGE DISCHARGE.--42 years (1926-42, 1943-69), 146 cfs (105,800 acre-ft per year); 15-year base period (1952-67), 156 cfs.

EXTREMES.--Current year: Maximum discharge, 1,500 cfs Apr. 23 (gage height, 7.01 ft); minimum, 5.4 cfs Dec. 6 (gage height, 1.72 ft).

Period of record: Maximum discharge, 6,000 cfs (due to failure of reservoirs on Little Fish Creek) Apr. 20, 1938 (gage height, 12.81 ft, present datum, from floodmark), from rating curve extended above 1,800 cfs; minimum, 1 cfs Jan. 26, 1945, Jan. 20, 1948.

REMARKS.--Records good. Flow regulated by Little Wood Reservoir 3 miles upstream (see sta 13-1482) and Campbell, Cameron, and Howard Reservoirs on South Fork Muldoon and Little Fish Creeks (combined capacity, 690 acre-ft). Diversions above station for irrigation of about 6,450 acres (1950 determination).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 25 to Aug. 9; stage-discharge relation affected by ice
Dec. 12, 13, 21-23, Dec. 29 to Jan. 1, Jan. 3, 8-11, 17-19, 22-24, 29, Jan. 31 to Feb. 2,
Feb. 4, 5, 7, 14, 17-19, 26-28, Mar. 2, 7-16)

1.7	5.4	4.0	355
2.0	15	5.0	655
2.3	34	6.0	1,030
2.6	65	7.0	1,460
3.0	127		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	45	46	34	83	115	638	1,150	701	244	333	148
2	77	45	35	36	82	115	663	1,160	802	263	332	148
3	90	47	7.6	35	81	114	713	1,150	715	325	331	148
4	93	47	6.2	36	81	115	711	1,150	599	316	328	148
5	108	46	6.0	35	81	115	714	1,140	765	308	367	146
6	102	46	11	35	86	116	803	1,140	905	302	374	146
7	70	46	32	35	90	116	907	1,140	882	322	347	144
8	70	46	32	34	92	127	1,050	1,140	774	318	345	144
9	69	46	32	34	92	170	1,090	1,150	670	298	343	144
10	61	46	32	34	92	210	1,140	1,160	638	292	325	145
11	58	46	32	34	92	178	1,170	1,140	712	296	310	137
12	61	46	32	37	93	85	1,240	1,150	660	305	298	122
13	61	46	31	36	92	155	1,360	1,160	597	316	282	119
14	61	46	32	36	92	115	1,350	1,160	549	326	278	100
15	61	47	32	35	93	113	1,230	1,250	529	351	277	96
16	61	47	33	35	93	136	1,190	1,360	542	374	241	87
17	61	47	33	42	90	153	1,230	1,290	506	386	216	86
18	61	47	33	54	90	197	1,270	1,310	463	385	217	86
19	56	47	33	58	90	229	1,250	1,310	435	403	217	86
20	44	47	33	74	79	229	1,280	1,260	458	430	215	85
21	44	47	30	117	50	250	1,340	1,140	454	433	214	74
22	44	47	31	94	70	313	1,380	1,050	438	449	206	73
23	44	47	32	78	103	335	1,380	1,060	409	459	188	72
24	44	47	33	75	104	333	1,230	1,110	419	456	172	72
25	44	47	34	74	103	210	1,130	1,110	439	423	172	71
26	44	47	34	70	103	266	1,130	1,150	436	396	170	69
27	45	47	34	77	105	338	1,140	1,210	407	393	170	67
28	45	47	35	88	114	412	1,130	1,150	388	390	169	67
29	45	46	35	86	-----	469	1,150	1,100	368	378	166	67
30	45	47	34	85	-----	517	1,150	1,040	313	361	149	67
31	45	-----	34	85	-----	587	-----	784	-----	334	148	-----
TOTAL	1,879	1,395	929.8	1,718	2,516	6,933	33,159	35,774	16,973	11,032	7,900	3,164
MEAN	60.6	46.5	30.0	55.4	89.9	224	1,105	1,154	566	356	255	105
MAX	108	47	46	117	114	587	1,380	1,360	905	459	374	148
MIN	44	45	6.0	34	50	85	638	784	313	244	148	67
AC-FT	3,730	2,770	1,840	3,410	4,990	13,750	65,770	70,960	33,670	21,880	15,670	6,280
CAL YR 1968: TOTAL	44,153.9			MEAN 121		MAX 529	MIN 6.0	AC-FT 87,580				
WTR YR 1969: TOTAL	123,372.8			MEAN 338		MAX 1,380	MIN 6.0	AC-FT 244,700				

13-1510. Little Wood River near Richfield, Idaho

LOCATION.--Lat 43°03'00", long 114°07'30", in sec.30, T.4 S., R.20 E., Lincoln County, on right bank 0.5 mile upstream from Byrns Slough and heading of Dietrich Canal, 1 mile east of railroad station at Richfield, 14 miles downstream from Silver Creek, and at mile 40.1.

DRAINAGE AREA.--570 sq mi, approximately.

PERIOD OF RECORD.--January 1911 to current year (irrigation seasons only prior to 1955 except 1913, 1921).

GAGE.--Water-stage recorder. Altitude of gage is 4,270 ft (by barometer). Prior to Sept. 5, 1918, nonrecording gage at site 500 ft downstream at datum 0.92 ft lower. Sept. 5, 1918, to Apr. 13, 1920, nonrecording gage and Apr. 14, 1920, to May 20, 1954, water-stage recorder, at site 500 ft downstream at datum 0.08 ft higher.

AVERAGE DISCHARGE.--17 years (1912-13, 1920-21, 1954-69), 157 cfs (113,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 843 cfs Apr. 13 (gage height, 5.23 ft); minimum, 91 cfs Aug. 24 (gage height, 2.42 ft).

Period of record: 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.--Records good except those for Dec. 12 to Mar. 14, which are poor. Flow regulated by Little Wood Reservoir 30.9 miles upstream (see sta 13-1482), Fish Creek Reservoir (capacity, 14,400 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. Diversions for irrigation of about 38,300 acres (1950 determination) above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 21 to May 5; stage-discharge relation affected
by ice Nov. 28, 29, Dec. 1-4, Dec. 12 to Mar. 14)

2.5	92	5.0	748
3.0	169	5.3	850
4.0	424		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	158	160	150	150	160	434	816	371	313	121	110
2	146	157	160	152	154	160	422	799	365	245	114	110
3	149	160	158	156	160	160	478	799	377	230	110	103
4	152	163	156	158	164	160	565	789	299	235	104	103
5	149	171	156	160	166	160	616	772	242	221	105	103
6	147	172	159	160	170	160	663	751	310	230	102	114
7	148	170	158	160	174	160	704	741	400	235	101	118
8	146	167	158	155	165	162	742	714	421	250	103	122
9	146	168	158	150	164	162	790	698	382	262	105	127
10	146	173	157	154	164	162	805	661	305	252	107	141
11	147	174	158	156	164	155	817	632	324	240	107	152
12	150	170	158	158	168	155	826	595	394	209	106	164
13	158	170	154	160	168	155	825	585	424	194	106	171
14	162	166	158	160	164	155	829	579	400	182	105	168
15	162	165	158	160	164	158	827	560	409	169	102	165
16	161	166	165	160	164	158	798	599	412	158	104	161
17	159	164	160	165	164	158	783	635	427	165	103	151
18	159	164	160	170	162	159	796	625	388	165	103	149
19	160	166	165	170	162	160	801	635	345	155	104	145
20	160	167	165	176	160	159	804	622	299	143	105	149
21	160	170	160	180	160	159	810	595	324	141	105	170
22	160	174	150	175	160	161	816	534	340	146	100	190
23	160	174	153	170	160	163	823	508	321	136	97	195
24	160	173	155	165	160	161	826	515	345	129	93	185
25	159	171	158	160	160	163	827	531	385	122	93	181
26	158	168	154	160	155	163	802	534	418	126	94	179
27	158	166	152	162	155	167	765	579	430	123	97	174
28	159	160	156	162	155	192	762	605	418	123	98	171
29	158	155	154	160	-----	216	789	599	403	126	100	169
30	158	160	154	155	-----	273	816	579	394	123	103	164
31	158	-----	150	150	-----	408	-----	547	-----	120	105	-----
TOTAL	4,806	5,002	4,877	4,989	4,536	5,404	22,361	19,733	11,072	5,668	3,202	4,504
MEAN	155	167	157	161	162	174	745	637	369	183	103	150
MAX	162	174	165	180	174	408	829	816	430	313	121	195
MIN	146	155	150	150	150	155	422	508	242	120	93	103
AC-FT	9,530	9,920	9,670	9,900	9,000	10,720	44,350	39,140	21,960	11,240	6,350	8,930

CAL YR 1968: TOTAL 48,149

MEAN 132

MAX 228

MIN 50

AC-FT 95,500

WTR YR 1969: TOTAL 96,154

MEAN 263

MAX 829

MIN 93

AC-FT 190,700

NOTE.--No gage-height record Dec. 18 to Mar. 11.

BIG WOOD RIVER BASIN

13-1525. Big Wood River near Gooding, Idaho

LOCATION.--Lat 42°53'12", long 114°48'08", in NE¼NE¼SW¼ sec.21, T.6 S., R.14 E., Gooding County, on right bank at Hudson Ranch, 3.1 miles downstream from bridge on Bliss-Gooding highway, 4.2 miles downstream from Little Wood River, 5.5 miles upstream from diversion dam for King Hill project, 6 miles southwest of Gooding, and at mile 7.8.

DRAINAGE AREA.--2,990 sq mi, approximately.

PERIOD OF RECORD.--March 1916 to current year (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, non-recording gage at present site and datum.

AVERAGE DISCHARGE.--37 years (1916-22, 1937-41, 1942-69), 248 cfs (179,700 acre-ft per year); 15-year base period (1952-67), 250 cfs.

EXTREMES.--Current year: Maximum discharge, 4,050 cfs Apr. 25 (gage height, 9.03 ft); minimum, 2.5 cfs Jan. 4 (gage height, 0.54 ft).

Period of record: Maximum discharge, 8,860 cfs Dec. 22, 1964 (gage height, 12.15 ft, from floodmarks); no flow at times in many years.

REMARKS.--Records good except those for Dec. 12 to Mar. 18, which are poor. Flow regulated by Magic Reservoir (see sta 13-1420) and by several smaller reservoirs on tributaries and affected by deliveries from canals diverting from Snake River at Milner. Diversions for irrigation of about 155,000 acres (1950 determination) above station. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1347: 1934.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 3; stage-discharge relation affected
by ice Dec. 12-14, 17-25, Dec. 27 to Jan. 1, Jan. 4-22, Jan. 27 to Mar. 18)

0.7	5.0	1.3	33	3.0	258	6.0	1,170
.8	7.5	1.6	60	4.0	450	7.0	1,830
1.0	15	2.0	109	5.0	752	9.0	4,060

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	377	251	231	18	65	52	1,010	1,530	1,540	497	66	196
2	370	252	243	11	65	52	1,170	1,530	1,430	379	85	194
3	373	271	234	5.8	60	52	2,380	1,550	1,290	232	102	169
4	386	298	97	15	60	52	2,570	1,540	1,140	108	119	144
5	420	283	77	20	55	52	2,870	1,480	934	154	110	148
6	441	244	50	25	55	52	2,790	1,280	877	176	131	191
7	446	256	63	30	50	52	2,410	959	893	227	152	208
8	429	262	87	30	50	52	2,170	920	1,090	231	153	188
9	442	276	69	20	50	52	2,120	934	1,350	235	170	187
10	467	277	77	20	50	52	2,120	1,420	1,350	222	166	218
11	508	288	68	25	50	49	2,050	1,910	1,250	180	152	212
12	288	288	63	35	50	48	2,070	2,180	1,230	119	129	231
13	109	277	50	50	50	48	2,080	2,430	1,260	66	129	240
14	89	262	44	100	50	48	2,050	2,700	1,290	56	144	239
15	100	263	39	300	50	48	2,090	2,500	871	73	135	247
16	31	262	96	230	50	50	2,090	2,300	637	80	106	256
17	97	257	90	160	50	70	2,050	2,150	673	82	111	274
18	127	255	40	100	50	350	1,990	2,060	632	82	117	272
19	144	282	40	120	50	807	2,080	2,030	563	82	128	278
20	159	344	35	160	50	1,410	3,050	2,070	490	82	123	250
21	158	371	25	400	50	1,650	3,760	2,000	462	79	107	311
22	162	315	20	1,000	50	1,500	3,800	1,870	468	69	66	323
23	155	284	22	600	50	1,430	3,720	1,620	496	64	65	357
24	156	254	24	300	52	1,010	3,840	1,470	424	70	97	382
25	208	254	26	200	54	695	3,950	1,460	373	81	115	389
26	228	248	16	170	54	517	3,830	1,560	580	83	119	414
27	229	252	27	120	50	620	3,550	1,720	707	92	124	343
28	235	240	35	90	50	696	3,070	1,880	758	96	137	309
29	233	199	30	75	-----	785	2,610	1,890	695	92	143	302
30	247	272	25	70	-----	822	1,840	1,810	629	81	150	295
31	246	-----	20	70	-----	1,040	-----	1,660	-----	62	176	-----
TOTAL	8,060	8,137	2,063	4,569.8	1,470	14,213	77,180	54,413	26,382	4,232	3,827	7,767
MEAN	260	271	66.5	147	52.5	458	2,573	1,755	879	137	123	259
MAX	508	371	243	1,000	65	1,650	3,950	2,700	1,540	497	176	414
MIN	31	199	16	5.8	50	48	1,010	920	373	56	65	144
AC-FT	15,990	16,140	4,090	9,060	2,920	28,190	153,100	107,900	52,330	8,390	7,590	15,410
CAL YR 1968: TOTAL	62,016.2			MEAN 169		MAX 777	MIN 7.0	AC-FT 123,000				
WTR YR 1969: TOTAL	212,313.8			MEAN 582		MAX 3,950	MIN 5.8	AC-FT 421,100				

BIG WOOD RIVER BASIN

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13-1530. King Hill Canal near Hagerman, Idaho

LOCATION.--Lat 42°52'05", long 114°54'40", in SE¼SE¼ sec.28, T.6 S., R.13 E., Twin Falls County, on left bank 600 ft below outlet of inverted siphon crossing Snake River, 0.8 mile west of highway bridge over Big Wood River, and 3.6 miles north of Hagerman.

PERIOD OF RECORD.--March 1930 to current year (irrigation seasons only 1930-37, 1940-46).

GAGE.--Water-stage recorder. Altitude of gage is 2,850 ft (from topographic map). Prior to June 1, 1949, non-recording gages at several sites within 0.6 mile of present site at various datums. June 1, 1949, to May 22, 1951, nonrecording gage at present site and datum. May 23, 1951, to Sept. 30, 1961, water-stage recorder 0.5 mile upstream at different datum.

EXTREMES.--Period of record: Maximum daily discharge, 363 cfs June 13, 14, 1968; no flow or minor leakage at headgate during nonirrigation seasons and other periods when gates are closed.

REMARKS.--Records excellent. 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).

REVISIONS (WATER YEARS).--WSP 723: 1930.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	347	J	0	0	J	J	144	306	340	344	345	332
2	347	0	0	0	0	0	144	308	341	345	345	331
3	347	J	0	0	J	0	144	308	342	345	309	332
4	347	J	0	0	J	0	216	308	342	343	0	333
5	347	J	0	0	J	0	289	309	343	342	70	333
6	347	J	0	0	J	0	289	308	344	342	339	334
7	347	J	0	0	J	0	289	308	346	342	336	334
8	347	J	0	0	J	0	289	311	347	342	332	335
9	347	0	0	0	J	J	289	325	347	343	331	336
10	347	0	0	0	J	0	289	331	347	344	330	337
11	347	J	0	0	J	0	289	332	326	344	330	337
12	347	J	0	0	0	0	289	331	0	344	331	338
13	347	J	0	0	0	0	289	332	0	345	330	339
14	349	0	0	0	J	0	289	332	0	345	331	339
15	349	J	0	0	J	J	289	332	87	344	330	339
16	349	J	0	0	0	0	288	332	351	343	329	333
17	349	J	0	0	0	0	288	332	346	344	329	327
18	349	J	0	0	J	0	287	332	341	345	329	325
19	349	0	0	0	J	J	286	333	341	344	329	325
20	174	J	0	0	J	J	292	334	340	345	330	306
21	0	J	0	0	0	0	292	335	340	344	330	0
22	0	J	0	0	J	0	288	335	340	344	331	0
23	0	J	0	0	J	0	295	335	340	343	331	125
24	0	0	0	0	0	0	295	335	342	344	332	333
25	0	J	0	0	J	0	293	336	343	344	332	334
26	0	J	0	0	J	0	292	336	343	344	333	334
27	0	0	0	0	J	0	293	337	344	344	334	333
28	0	J	0	0	0	0	297	337	344	344	334	333
29	0	J	0	0	-----	72	299	339	343	345	334	333
30	0	J	0	0	-----	144	300	339	343	345	335	333
31	0	-----	0	0	-----	144	-----	339	-----	344	335	-----
TOTAL	6,779	J	0	0	0	360	8,212	10,147	8,993	10,660	9,696	9,103
MEAN	219	0	0	0	J	11.6	274	327	300	344	313	303
MAX	349	0	0	0	J	144	300	339	351	345	345	339
MIN	0	J	0	0	J	0	144	306	0	342	0	0
AC-FT	13,450	0	0	0	J	714	15,290	20,130	17,840	21,140	19,230	18,060
CAL YR 1968: TOTAL	66,538.00			MEAN 182		MAX 363		MIN 0		AC-FT 132,000		
WTR YR 1969: TOTAL	63,950.00			MEAN 175		MAX 351		MIN 0		AC-FT 126,800		

SNAKE RIVER MAIN STEM

13-1545. Snake River at King Hill, Idaho

LOCATION.--Lat 43°00'08", long 115°12'06", in NW¼NW¼SW¼ sec.7, T.5 S., R.11 E., Elmore County, on right bank 300 ft east of railroad station at King Hill, 20 miles downstream from Big Wood River, and at mile 545.6.

DRAINAGE AREA.--35,800 sq mi, approximately. Mean altitude, 6,040 ft.

PERIOD OF RECORD.--May 1909 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,492.3 ft above mean sea level, by stadia levels. Nonrecording gage May 13, 1909, to Mar. 1, 1910, on left bank at present site at datum 2.20 ft higher, Mar. 7 to Aug. 16, 1910, 0.8 mile upstream at different datum, and Aug. 17, 1910, to Oct. 7, 1928, at present site and datum.

AVERAGE DISCHARGE.--60 years, 10,490 cfs (7,600,000 acre-ft per year); 15-year base period (1952-67), 9,723 cfs.

EXTREMES.--Current year: Maximum discharge, 24,000 cfs Apr. 27, 29 (gage height, 11.11 ft); minimum, 3,310 cfs July 26 (gage height, 3.72 ft); minimum daily, 7,020 cfs July 17.

Period of record: 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 June 7-9, Aug. 15, 16, 1910.

REMARKS.--Records excellent. Flow regulated by American Falls Reservoir 168.4 miles upstream (see sta 13-0765). Diurnal fluctuation caused by hydroelectric plants upstream. At times, practically entire flow is diverted at Milner during irrigation seasons, only minor diversions below Milner; flow at King Hill is then derived largely from springs and seepage entering below Milner. Surface-water diversions and ground-water withdrawals for irrigation of about 2,100,000 acres (1960 determination) above station. Records of chemical analysis and water temperatures for the water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1317: 1935(M).

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 13)

Oct. 1 to Dec. 13		Dec. 14 to Sept. 30		
6.4	8,780	5.7	6,970	10.0 19,800
7.0	10,300	6.0	7,630	11.0 23,600
8.0	13,200	8.0	13,000	
8.2	13,900			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9,370	11,100	11,300	12,000	15,600	15,200	20,900	18,700	8,400	7,800	7,650	8,520
2	9,400	11,700	10,900	13,600	16,400	15,700	20,400	17,500	8,450	8,620	7,800	8,550
3	9,450	12,700	11,300	14,400	16,600	15,400	19,900	17,900	8,350	7,130	7,550	8,890
4	9,410	11,600	11,100	14,800	17,400	15,100	17,200	18,200	8,330	7,090	8,150	8,670
5	9,420	11,500	11,300	13,200	16,900	15,300	15,700	17,000	7,860	7,520	8,200	8,620
6	9,390	11,300	11,500	14,200	16,300	15,200	12,500	17,300	8,230	7,540	7,680	8,550
7	9,530	11,900	11,300	13,100	16,500	14,900	13,100	15,800	7,910	7,740	8,020	8,690
8	9,290	13,800	11,600	14,900	16,400	15,300	11,100	13,700	8,020	8,630	7,960	8,760
9	9,310	11,200	11,400	14,100	15,600	15,600	12,100	10,300	8,640	7,920	7,730	8,810
10	9,250	11,900	11,800	14,500	16,100	15,300	11,500	11,100	9,090	7,090	7,890	8,950
11	9,170	11,800	10,700	14,500	15,200	15,400	11,900	10,100	9,240	7,820	7,800	8,570
12	9,120	12,200	12,900	16,600	15,600	15,300	11,400	10,100	8,910	7,550	8,040	8,710
13	8,920	12,200	12,000	18,100	15,700	15,000	11,900	8,640	9,470	7,270	7,500	8,860
14	9,140	11,600	11,800	19,100	16,000	16,100	11,100	9,110	8,400	7,190	7,830	8,780
15	9,650	12,300	11,500	18,800	16,000	14,700	10,200	9,360	9,060	7,260	7,770	9,000
16	10,100	11,500	12,800	16,200	15,400	15,500	10,200	9,440	7,700	7,800	7,950	8,970
17	9,980	11,600	13,100	17,100	15,500	16,700	8,790	9,060	8,040	7,020	8,140	9,060
18	10,200	11,200	12,800	16,700	15,900	15,100	8,760	8,190	8,160	7,150	7,500	9,080
19	11,000	10,100	11,300	17,000	15,200	16,300	9,570	9,110	7,590	7,150	8,110	9,140
20	11,000	10,800	12,100	17,700	15,900	17,300	9,440	9,090	7,880	7,590	7,980	9,380
21	11,200	11,000	10,900	20,500	15,800	16,800	13,000	8,810	7,950	7,500	8,160	9,810
22	11,800	10,500	12,100	21,800	15,800	16,700	14,000	8,790	7,880	7,540	7,750	10,000
23	11,200	10,900	11,500	18,600	15,200	17,500	19,800	8,450	8,040	7,530	7,880	10,900
24	10,100	10,600	12,800	17,300	15,800	17,800	23,200	7,910	8,570	7,540	7,980	9,750
25	10,800	10,900	13,100	17,300	15,600	19,600	20,800	8,000	8,650	7,460	7,930	9,830
26	11,100	11,000	13,400	19,100	16,000	19,900	18,000	8,230	9,210	7,560	8,040	9,690
27	11,200	10,300	12,900	18,800	15,500	20,900	20,900	8,380	8,890	7,620	8,140	9,340
28	10,500	10,700	12,400	18,600	15,200	20,800	22,000	8,240	9,140	7,770	8,230	9,720
29	11,800	11,700	12,400	17,900	-----	17,900	23,300	8,640	8,340	7,650	8,330	9,000
30	10,700	9,730	12,900	16,800	-----	18,300	21,900	8,500	8,640	7,800	8,140	9,700
31	11,200	-----	11,700	16,300	-----	20,200	-----	8,380	-----	7,610	8,550	-----
TOTAL	313,700	341,530	370,600	513,600	445,100	516,800	454,560	342,050	253,040	234,460	246,380	274,300
MEAN	10,120	11,380	11,950	16,570	15,900	16,670	15,150	11,030	8,435	7,563	7,948	9,143
MAX	11,800	13,800	13,400	21,800	17,400	20,900	23,300	18,700	9,470	8,630	8,550	10,900
MIN	8,920	9,730	10,700	12,000	15,200	14,700	8,760	7,910	7,590	7,020	7,500	8,520
AC-FT	622,200	677,400	735,100	1,019M	882,800	1,025M	901,600	678,400	501,900	465,000	488,700	544,100
CAL YR 1968: TOTAL	3,445,660			MEAN 9,414	MAX 17,700	MIN 6,160	AC-FT 6,834,000					
WTR YR 1969: TOTAL	4,305,120			MEAN 11,800	MAX 23,300	MIN 7,020	AC-FT 8,541,000					

13-1553. Little Canyon Creek at Stout Crossing, near Glenns Ferry, Idaho

LOCATION.--Lat 43°09'14", long 115°18'32", in NE¼NW¼NE¼ sec.19, T.3 S., R.10 E., Elmore County, on left bank at county road crossing 13.8 miles north of Glenns Ferry.

DRAINAGE AREA.--14.2 sq mi.

PERIOD OF RECORD.--Annual maximum, water years 1961-65, November 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,918.44 ft above mean sea level. Nov. 3, 1960, to Nov. 4, 1965, crest-stage gage at same site at datum 7.28 ft lower.

EXTREMES.--Current year: Maximum discharge, 142 cfs Apr. 2 (gage height, 3.72 ft); minimum, 0.38 cfs Nov. 1 (gage height, 2.12 ft).

Period of record: Maximum discharge, 500 cfs December 23, 1964 (gage height, 7.44 ft, present datum; no flow Sept. 7, 1967.

REMARKS.--Records good.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 14		Jan. 15 to Apr. 30		May 1 to Sept. 30	
2.1	0.19	2.1	3.3	2.0	0.32
2.2	.58	2.3	5.1	2.1	1.0
2.3	1.1	2.5	7.9	2.2	2.1
2.4	2.1	2.7	13	2.3	3.6
2.5	3.7	3.0	28	2.5	7.7
2.6	6.1	3.5	112	2.7	13
2.7	9.8	3.6	126	3.0	28
2.8	15			3.5	112

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.54	.86	1.0	6.3	3.8	107	50	10	4.5	1.4	.88
2	.54	.74	.91	1.0	5.8	3.8	110	43	9.9	4.3	1.3	.85
3	.54	1.1	1.1	1.0	5.4	3.8	102	38	9.6	4.0	1.3	.84
4	.54	1.1	1.1	1.1	5.1	3.7	102	37	9.4	4.0	1.3	.89
5	.54	.86	1.1	1.2	4.9	3.8	113	41	9.1	4.0	1.2	.92
6	.58	.86	.96	2.2	4.8	3.8	120	61	8.9	4.1	1.3	.91
7	.58	.86	.91	10	4.6	3.7	82	82	8.6	3.8	1.2	.88
8	.64	.96	1.1	9.5	4.5	3.7	50	86	8.9	3.7	1.2	.82
9	.64	2.7	1.1	8.3	4.5	3.7	50	81	8.6	3.5	1.2	.84
10	.58	1.2	1.1	6.9	4.4	3.7	53	88	9.4	3.4	1.1	.89
11	.64	1.2	1.1	5.2	4.4	3.6	59	81	9.1	3.1	1.1	.92
12	.74	1.2	.96	5.6	4.5	3.7	63	77	7.9	3.0	1.1	.88
13	.69	1.1	.91	10	4.2	3.7	70	61	7.5	3.0	1.1	.88
14	.80	.80	1.0	9.8	4.0	3.7	63	59	7.0	3.0	1.1	.84
15	.69	1.0	1.1	9.4	4.1	3.9	53	51	6.8	2.8	1.0	.86
16	.80	1.0	1.1	9.5	4.0	4.1	51	37	6.4	2.7	.99	.87
17	.64	.91	1.1	8.8	3.9	4.4	59	30	5.9	2.6	1.0	.84
18	.64	1.0	1.1	8.2	3.9	4.9	70	28	5.7	2.5	1.1	.86
19	.64	1.1	1.1	9.2	3.9	5.0	66	26	5.9	2.4	1.1	1.1
20	.64	1.1	1.1	21	3.8	5.4	57	22	5.7	2.2	.99	1.4
21	.64	1.1	1.1	62	3.8	6.0	59	19	5.3	2.1	.95	1.2
22	.64	1.2	1.1	37	3.8	7.5	86	18	5.3	2.1	.90	1.1
23	.64	1.2	1.3	18	3.8	9.2	120	17	5.3	2.0	.87	1.1
24	.58	1.2	2.7	13	3.8	9.2	118	16	6.2	1.9	.85	1.1
25	.58	1.0	1.1	11	3.8	11	98	16	5.7	1.9	.85	.99
26	.58	.96	1.1	9.7	3.8	16	77	15	5.3	1.8	.86	.98
27	.58	1.1	1.1	8.2	3.8	25	63	14	5.1	1.8	.87	.92
28	.64	1.0	1.1	7.5	3.8	38	59	13	5.1	1.7	.90	.92
29	.58	.80	1.1	6.7	-----	59	59	12	4.9	1.6	.91	.94
30	.64	1.1	1.1	6.3	-----	93	57	12	4.8	1.5	.92	.99
31	.69	-----	1.0	6.3	-----	107	-----	12	-----	1.5	.91	-----
TOTAL	19.43	31.99	34.61	324.6	121.4	460.8	2,296	1,243	213.3	86.5	32.87	28.41
MEAN	.63	1.07	1.12	10.5	4.34	14.9	76.5	40.1	7.11	2.79	1.06	.95
MAX	.80	2.7	2.7	62	6.3	107	120	88	10	4.5	1.4	1.4
MIN	.54	.54	.86	1.0	3.8	3.6	50	12	4.8	1.5	.85	.82
CFSM	.04	.08	.08	.74	.31	1.05	5.39	2.82	.50	.20	.07	.07
IN.	.05	.08	.09	.85	.32	1.21	6.01	3.26	.56	.23	.09	.07
AC-FT	39	63	69	644	241	914	4,550	2,470	423	172	65	56

CAL YR 1968: TOTAL 1,322.92 MEAN 3.61 MAX 74 MIN .04 CFSM .25 IN 3.46 AC-FT 2,620
WTR YR 1969: TOTAL 4,892.91 MEAN 13.4 MAX 120 MIN .54 CFSM .94 IN 12.81 AC-FT 9,700

PEAK DISCHARGE (BASE, 40 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-21	1830	3.49	112	4-23	2030	3.69	139
4-2	1600	3.72	142	5-10	1900	3.35	89

CANYON CREEK BASIN

13-1605. Mountain Home feeder canal near Mountain Home, Idaho

LOCATION.--Lat 43°12'45", long 115°41'30", in NW¼NE¼NW¼ sec.36, T.2 S., R.6 E., Elmore County, on right bank 40 ft downstream from point of diversion from Canyon Creek and 5 miles north of Mountain Home.

PERIOD OF RECORD.--April 1924 to September 1929, April 1931 to October 1969 (discontinued) (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, nonrecording gage and May 4, 1924, to Sept. 30, 1929, water-stage recorder, at site 30 ft downstream at datum 0.07 ft lower.

EXTREMES.--Period of record: Maximum daily discharge, 271 cfs Dec. 23, 1964; no flow at times in most years.

REMARKS.--Records good. Flow regulated by headgates in Canyon Creek and by Long Tom and Little Camas Reservoirs, capacity 4,040 acre-ft and 22,300 acre-ft, respectively. No diversion from canal above station. 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 0.5 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.

DISCHARGE, IN CFS, 1969

DAY	OCT.	DAY	OCT.
1	45	8	3.7
2	44	9	4.0
3	21	10	3.7
4	7.1	11	3.7
5	5.2	12	3.7
6	4.4	13	3.7
7	4.0	14	3.4
TOTAL.....	-		
MEAN.....	-		
MAX.....	-		
MIN.....	-		
AC-FT.....	-		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	1.1	4.4	9.0	.30	0	134	90	61	55	42	30
2	.76	1.1	5.2	8.0	.15	0	66	84	60	54	50	30
3	.76	1.2	4.4	10	0	7.9	76	76	58	54	55	30
4	.60	1.8	4.4	10	0	17	79	68	58	54	55	41
5	.60	1.5	4.7	15	0	21	84	60	58	54	54	43
6	.60	1.4	4.0	28	0	21	89	50	58	54	48	44
7	.60	1.4	4.4	40	0	21	83	54	58	51	44	49
8	.76	1.5	4.4	40	0	21	88	58	58	45	41	45
9	.76	2.5	4.0	34	0	20	91	61	58	60	34	38
10	.76	2.1	4.0	30	0	20	114	62	58	62	33	36
11	.76	2.1	4.0	27	0	19	77	64	58	67	33	31
12	.76	2.5	4.0	35	0	19	48	70	58	75	33	30
13	.76	2.1	4.0	80	0	19	46	74	58	75	27	30
14	.91	2.5	4.4	120	0	19	42	75	58	75	41	39
15	1.1	2.8	4.4	105	0	20	66	75	57	76	50	50
16	1.1	2.8	4.4	87	0	22	84	74	54	71	52	48
17	.91	2.8	4.4	70	0	24	116	71	46	52	52	40
18	.91	2.8	4.4	58	0	30	132	70	56	43	50	41
19	1.2	3.1	4.4	62	0	32	127	67	75	43	47	36
20	1.1	3.1	4.5	128	0	34	122	67	79	43	48	28
21	1.2	2.8	4.7	163	0	36	118	66	77	42	48	26
22	1.2	3.1	5.6	72	0	43	118	61	77	42	57	26
23	1.1	3.1	5.6	39	0	50	120	57	79	41	58	25
24	1.1	3.1	22	14	0	51	118	81	77	42	56	24
25	1.1	3.7	37	7.6	0	56	112	80	67	42	56	48
26	1.1	3.4	16	4.4	0	64	107	68	45	42	55	50
27	1.1	3.7	12	2.8	0	81	103	66	32	42	48	48
28	1.1	3.7	10	2.5	0	93	100	72	50	41	42	51
29	1.1	4.4	10	1.4	-----	108	101	70	56	40	31	49
30	1.1	4.4	9.0	.91	-----	122	96	62	55	38	20	46
31	1.1	-----	9.0	.45	-----	150	-----	62	-----	38	30	-----
TOTAL	28.61	77.6	227.7	1,304.06	0.45	1,240.9	2,857	2,115	1,799	1,613	1,410	1,152
MEAN	.92	2.59	7.35	42.1	.016	40.0	95.2	68.2	60.0	52.0	45.5	38.4
MAX	1.2	4.4	37	163	.30	150	134	90	79	76	58	51
MIN	.60	1.1	4.0	.45	0	0	42	50	32	38	30	24
AC-FT	57	154	452	2,590	.9	2,460	5,670	4,200	3,570	3,200	2,800	2,280

CAL YR 1968: TOTAL 5,681.20

MEAN 15.5

MAX 116

MIN 0

AC-FT 11,270

WTR YR 1969: TOTAL 13,825.32

MEAN 37.9

MAX 163

MIN 0

AC-FT 27,420

BRUNEAU RIVER BASIN

183

13-1615. Bruneau River at Rowland, Nev.

LOCATION.--Lat 41°56'00", long 115°40'25", in NW¼SE¼ sec.29, T.47 N., R.56 E., Elko County, on left bank 2 miles upstream from McDonald Creek and 0.5 mile south of Rowland.

DRAINAGE AREA.--382 sq mi. Area at crest-stage site, 380 sq mi.

PERIOD OF RECORD.--June 1913 to September 1918, water years 1963-66 (annual maximum), October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,500 ft (from topographic map). June 1913 to September 1918, nonrecording gage at different site and datum. October 1961 to September 1966, crest-stage gage at site 3 miles upstream at different datum.

AVERAGE DISCHARGE.--8 years, 106 cfs (76,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,140 cfs Apr. 22 (gage height, 7.52 ft); minimum, 7.2 cfs Sept. 5-8.

Period of record: Maximum discharge, 2,120 cfs Feb. 11, 1962 (gage height, 13.0 ft, site and datum then in use); minimum, 5 cfs Aug. 12, 13, 1918.

REMARKS.--Records excellent except those for winter months, which are fair. Minor diversions for irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	21	35	31	65	53	557	547	215	109	20	9.0
2	13	20	33	29	65	46	722	531	198	99	20	9.0
3	13	24	30	31	70	49	560	521	182	88	20	9.0
4	13	36	34	31	70	48	482	513	172	81	19	9.0
5	13	31	35	35	69	44	345	500	166	76	18	7.8
6	13	26	32	35	56	50	271	554	162	81	17	7.2
7	13	26	32	38	54	50	544	622	153	95	17	7.2
8	13	25	32	30	53	46	708	679	146	83	16	7.2
9	14	48	29	32	53	39	708	708	142	77	15	8.1
10	15	92	31	35	49	39	606	725	162	71	15	9.0
11	15	68	30	45	49	39	380	722	190	65	14	10
12	15	57	27	50	51	43	343	703	172	57	14	11
13	15	51	31	55	48	42	345	750	176	53	14	11
14	17	39	35	63	39	42	388	731	155	49	14	10
15	20	40	32	62	54	45	588	651	149	46	13	9.8
16	20	40	31	52	51	46	720	578	156	44	13	11
17	19	39	28	45	43	52	708	528	149	41	13	12
18	19	37	30	47	47	56	638	502	139	39	12	12
19	19	46	28	60	50	52	700	476	136	37	12	13
20	18	47	25	64	50	52	759	443	186	35	13	15
21	18	44	23	80	48	62	848	411	176	31	12	16
22	18	44	22	102	49	64	1,010	391	158	29	11	16
23	18	43	30	70	39	72	1,100	372	146	28	11	16
24	18	39	35	55	52	70	974	367	215	28	10	15
25	18	40	33	75	54	70	792	357	209	30	9.8	15
26	18	31	30	70	47	82	666	345	190	29	9.4	14
27	18	34	28	65	37	109	588	326	168	27	9.0	13
28	17	32	30	60	48	140	552	295	151	26	9.0	13
29	17	29	25	55	-----	224	575	266	139	24	9.0	11
30	20	35	28	60	-----	333	549	244	124	24	9.0	11
31	22	-----	32	65	-----	450	-----	233	-----	22	9.0	-----
TOTAL	512	1,184	936	1,627	1,460	2,609	18,726	15,591	4,982	1,624	417.2	337.3
MEAN	16.5	39.5	30.2	52.5	52.1	84.2	624	503	166	52.4	13.5	11.2
MAX	22	92	35	102	70	450	1,100	750	215	109	20	16
MIN	13	20	22	29	37	39	271	233	124	22	9.0	7.2
AC-FT	1,020	2,350	1,860	3,230	2,900	5,170	37,140	30,920	9,880	3,220	828	669

CAL YR 1968: TOTAL 16,123.2

MEAN 44.1

MAX 300

MIN 6.8

AC-FT 31,980

WTR YR 1969: TOTAL 50,005.5

MEAN 137

MAX 1,100

MIN 7.2

AC-FT 99,180

PEAK DISCHARGE (BASE, 200 CFS).--Apr. 22 (2400) 1,140 cfs (7.52 ft); June 24 (0600) 251 cfs (4.24 ft).

13-1625. East Fork Jarbidge River near Three Creek, Idaho

LOCATION.--Lat 42°02'00", long 115°22'20", in SE¼SE¼ sec.14, T.16 S., R.9 E., Owyhee County, on left bank 0.2 mile downstream from Murphy Hot Springs, 2 miles upstream from mouth, and 11 miles southwest of Three Creek.

DRAINAGE AREA.--84.6 sq mi. Mean altitude, 7,600 ft.

PERIOD OF RECORD.--October 1928 to March 1933, September 1953 to current year. 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 present site at datum about 1.6 ft higher.

AVERAGE DISCHARGE.--20 years (1928-32, 1953-69), 56.3 cfs (40,790 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 475 cfs May 26 (gage height, 5.43 ft); minimum, 2.5 cfs Dec. 12 (gage height, 3.41 ft).

Period of record: Maximum discharge, 693 cfs June 24, 1962 (gage height, 4.95 ft); minimum, 0.7 cfs Dec. 23, 25, 1962 (gage height, 2.82 ft).

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 31 to Nov. 12)

Oct. 1 to Mar. 9			Mar. 10 to Sept. 30		
3.4	4.9	3.5	6.8	4.3	90
3.5	8.3	3.6	11	4.6	153
3.6	13	3.7	16	5.0	270
3.8	27	3.8	24	5.4	458
3.9	38	4.0	44		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	9.8	11	12	14	13	128	143	267	113	26	10
2	12	9.7	11	12	13	11	122	151	238	118	24	10
3	12	11	13	11	12	13	126	145	238	120	23	9.8
4	11	13	13	12	13	12	121	136	264	115	22	9.9
5	11	11	12	12	13	11	131	141	287	107	21	10
6	11	11	11	14	13	13	131	183	280	112	21	9.8
7	11	11	11	15	12	12	107	242	271	108	19	9.6
8	11	11	13	9.3	12	11	90	296	253	94	18	9.0
9	11	30	12	10	12	11	89	341	232	86	17	8.9
10	12	30	12	17	12	10	101	377	238	84	16	9.4
11	12	22	12	18	12	11	113	406	220	83	17	11
12	11	19	7.5	17	13	12	118	399	194	80	16	10
13	11	16	7.4	16	12	11	122	427	190	77	16	9.6
14	13	12	15	16	10	12	116	451	188	75	15	9.5
15	13	16	12	15	16	12	100	386	186	73	15	9.6
16	12	15	11	11	13	14	88	318	200	65	14	9.4
17	11	14	9.3	12	11	17	87	320	210	57	14	9.2
18	11	14	10	12	14	20	100	377	218	53	14	9.0
19	11	16	11	17	13	20	95	394	200	50	15	9.8
20	11	15	9.1	16	13	21	104	371	198	49	14	10
21	11	15	9.3	19	12	22	135	349	176	46	13	12
22	10	15	9.1	26	12	22	197	352	159	44	13	11
23	10	15	15	14	12	25	237	384	149	41	13	10
24	10	15	15	15	12	25	209	426	218	39	12	9.6
25	10	13	13	24	13	24	168	429	193	38	12	9.4
26	9.7	12	12	19	12	29	139	438	174	37	12	9.2
27	9.7	14	10	14	10	47	120	407	151	34	11	8.9
28	9.7	13	13	14	13	65	113	358	138	33	11	8.8
29	9.6	9.5	8.7	12	-----	84	127	315	127	32	11	8.6
30	11	15	9.3	13	-----	102	137	323	116	30	11	8.4
31	11	-----	15	13	-----	130	-----	331	-----	27	11	-----
TOTAL	341.7	443.0	352.7	457.3	349	842	3,771	10,116	6,173	2,120	487	289.4
MEAN	11.0	14.8	11.4	14.8	12.5	27.2	126	326	206	68.4	15.7	9.65
MAX	13	30	15	26	16	130	237	451	287	120	26	12
MIN	9.6	9.5	7.4	9.3	10	10	87	136	116	27	11	8.4
AC-FT	678	879	700	907	692	1,670	7,480	20,060	12,240	4,200	966	574
CAL YR 1968: TOTAL	17,272.7			MEAN 47.2	MAX 327	MIN 6.6	AC-FT 34,260					
WTR YR 1969: TOTAL	25,742.1			MEAN 70.5	MAX 451	MIN 7.4	AC-FT 51,060					

PEAK DISCHARGE (BASE, 200 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
4-23	0500	4.96	250	5-26	0400	5.43	475
5-14	0300	5.43	470	6-24	0400	4.96	256

13-1675. East Fork Bruneau River near Hot Spring, Idaho

LOCATION.--Lat 42°33'25", long 115°30'35", in SW¼SW¼NW¼ sec.15, T.10 S., R.8 E., Owyhee County, on right bank at Winter Camp Ranch, at mile 10, and 20 miles southeast of Hot Spring.

DRAINAGE AREA.--620 sq mi, approximately.

PERIOD OF RECORD.--August 1910 to November 1914, February to April 1915, December 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,864.8 ft. Prior to Dec. 10, 1948, nonrecording gage at approximately present site at different datum. Dec. 10, 1948, to Nov. 18, 1964, water-stage recorder at site 50 ft upstream at datum 0.1 ft lower.

AVERAGE DISCHARGE.--24 years (1910-14, 1949-69), 30.1 cfs (21,810 acre-ft per year); 15-year base period (1952-67), 26.0 cfs.

EXTREMES.--Current year: Maximum discharge, 140 cfs June 10 (gage height, 3.61 ft); minimum, 0.75 cfs Nov. 26 (gage height, 0.85 ft).

Period of record: Maximum discharge, 619 cfs June 8, 1963 (gage height, 8.29 ft); 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, 1961, 1966, and shorter periods in 1959, 1968.

Maximum stage known, 16.9 ft, from floodmark, datum then in use, during spring of 1910.

REMARKS.--Records good except those for Dec. 21 to Mar. 6, which are fair. Diversions for irrigation above station. Water diverted from Deadwood Creek, a tributary of East Fork, to Cedar Creek Reservoir in Salmon Falls Creek basin for irrigation.

REVISIONS (WATER YEARS).--WSP 1397: 1949.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

0.9	1.1	2.0	33
1.1	3.5	2.5	61
1.3	7.2	3.0	94
1.5	13	3.6	141

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	7.7	12	8.6	10	16	48	75	45	31	2.9	3.0
2	5.0	7.8	9.6	9.2	11	19	66	75	43	27	2.3	2.9
3	5.0	8.4	14	15	12	23	78	74	39	23	2.4	2.8
4	5.0	10	10	20	13	25	81	82	35	20	2.3	2.4
5	4.9	12	12	25	15	25	84	96	35	19	2.1	2.4
6	5.2	11	8.5	25	16	23	85	93	31	19	2.3	2.5
7	4.8	9.0	6.2	25	17	12	91	83	32	20	2.2	2.6
8	4.9	8.5	11	20	18	9.7	93	82	30	31	1.9	2.8
9	5.2	9.5	15	12	19	7.8	85	91	33	28	1.7	2.7
10	5.0	9.3	16	10	21	11	75	99	36	24	1.7	2.8
11	5.3	9.1	11	15	27	10	70	109	48	21	1.6	2.9
12	5.4	8.9	9.4	20	28	12	72	120	53	19	1.7	3.3
13	6.1	8.8	8.6	25	26	11	73	127	52	16	1.7	3.6
14	6.5	7.1	8.5	25	21	11	78	129	40	14	1.8	3.4
15	6.8	8.8	9.2	25	19	13	83	128	35	12	1.5	2.8
16	7.0	8.9	19	20	19	13	87	124	32	12	1.4	3.0
17	7.3	8.3	20	17	25	12	77	117	33	12	1.5	3.1
18	7.1	8.3	13	15	26	23	71	109	32	11	1.6	2.8
19	6.9	8.8	11	17	25	54	72	101	32	10	1.6	2.4
20	6.9	9.9	10	19	21	43	76	96	32	9.1	1.5	2.1
21	7.1	12	7.5	21	17	39	71	92	34	7.3	1.1	3.2
22	7.3	10	7.5	18	17	38	73	88	31	7.9	1.3	3.6
23	7.1	9.7	10	12	17	43	83	83	33	5.8	1.5	3.6
24	7.2	9.5	20	9.0	17	61	103	71	32	5.9	1.4	3.8
25	7.1	9.1	23	9.0	15	40	124	69	45	4.4	1.3	3.8
26	6.6	7.6	22	10	13	30	135	64	44	3.4	1.3	3.8
27	6.2	8.2	15	11	13	32	123	57	47	3.3	1.8	3.7
28	6.3	8.2	10	11	14	44	109	56	42	3.6	2.3	3.4
29	6.4	7.4	8.6	10	-----	43	96	57	39	3.3	2.5	3.4
30	6.8	12	8.6	9.4	-----	42	83	53	36	3.1	2.6	3.1
31	7.3	-----	8.6	9.4	-----	42	-----	49	-----	3.1	2.8	-----
TOTAL	190.6	273.8	374.8	497.6	512	827.5	2,545	2,749	1,131	429.2	57.6	91.7
MEAN	6.15	9.13	12.1	16.1	18.3	26.7	84.8	88.7	37.7	13.8	1.86	3.06
MAX	7.3	12	23	25	28	61	135	129	53	31	2.9	3.8
MIN	4.8	7.1	6.2	8.6	10	7.8	48	49	30	3.1	1.1	2.1
AC-FT	378	543	743	987	1,020	1,640	5,050	5,450	2,240	851	114	182

CAL YR 1968 : TOTAL 4,461.59

MEAN 12.2

MAX 98

MIN 0

AC-FT 8,850

WTR YR 1969 : TOTAL 4,679.8

MEAN 26.5

MAX 135

MIN 1.1

AC-FT 19,200

BRUNEAU RIVER BASIN

13-1685. Bruneau River near Hot Spring, Idaho

LOCATION.--Lat 42°46'16", long 115°43'10", in NE¼NE¼SE¼ sec.34, T.7 S., R.6 E., Owyhee County, on right bank at Dunham Ranch, 1 mile downstream from Hot Creek, 1.5 miles south of Hot Spring, 9 miles southeast of Bruneau, 16 miles downstream from East Fork, and at mile 22.0.

DRAINAGE AREA.--2,630 sq mi, approximately. Mean altitude, 5,600 ft.

PERIOD OF RECORD.--July 1909 to March 1915, October 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,598.5 ft above mean sea level. Prior to Mar. 12, 1910, non-recording gage at site 0.2 mile upstream at different datum. Mar. 12, 1910, to Mar. 15, 1915, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--31 years (1909-14, 1943-69), 373 cfs (270,200 acre-ft per year); 15-year base period (1952-67), 318 cfs.

EXTREMES.--Current year: Maximum discharge, 2,340 cfs Apr. 7 (gage height, 8.08 ft); minimum, 32 cfs Dec. 22, 23 (gage height, 3.26 ft).

Period of record: 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 daily, 25 cfs Dec. 18, 1964.

REMARKS.--Records good. Several small reservoirs on tributaries above station. Diversions above station for irrigation of about 8,500 acres.

REVISIONS (WATER YEARS).--WSP 1063: 1913. WSP 1517: 1910(M). WSP 1567: Drainage area.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 12 to Jan. 29)

Oct. 1 to Apr. 7

Apr. 8 to Sept. 30

3.1	30	5.0	555	3.2	46	5.0	532
3.4	60	6.0	1,040	3.4	68	6.0	1,010
3.7	115	7.0	1,630	3.7	114	7.0	1,610
4.0	196	7.6	2,040	4.0	180	7.8	2,180

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	89	119	100	173	154	1,420	1,200	1,020	491	114	60
2	71	89	118	186	191	186	1,500	1,210	923	451	109	59
3	70	91	103	138	161	161	1,670	1,210	867	424	105	58
4	70	101	96	129	152	158	1,850	1,200	842	406	100	57
5	69	118	126	127	179	158	1,810	1,170	857	380	96	57
6	68	118	119	131	228	145	2,000	1,230	847	362	93	57
7	68	113	105	151	215	144	2,030	1,390	827	380	92	58
8	68	109	87	197	183	152	1,480	1,590	979	383	91	58
9	69	107	120	112	156	130	1,320	1,790	817	365	88	57
10	69	141	112	56	184	122	1,390	1,940	758	333	86	58
11	70	236	113	79	175	109	1,600	2,030	852	312	83	58
12	71	217	107	201	183	126	1,780	2,050	797	288	79	61
13	70	188	83	208	193	133	1,720	2,030	748	268	78	62
14	74	169	58	193	157	139	1,730	2,170	710	251	78	60
15	76	144	97	225	138	142	1,620	2,120	669	235	78	60
16	80	135	113	236	193	150	1,360	1,910	655	226	75	60
17	84	138	111	187	181	153	1,200	1,720	664	214	71	60
18	84	129	87	124	166	172	1,230	1,670	669	200	70	60
19	84	129	73	149	156	259	1,330	1,670	660	188	70	62
20	86	137	85	236	173	259	1,280	1,620	669	180	70	63
21	83	167	62	229	172	227	1,350	1,530	705	173	68	64
22	83	177	37	301	161	227	1,560	1,450	646	158	66	68
23	83	163	74	444	154	233	1,870	1,420	597	151	65	73
24	85	151	150	236	144	319	2,080	1,440	619	147	63	72
25	85	140	211	202	151	282	1,830	1,470	773	142	62	70
26	83	134	169	355	162	259	1,570	1,450	758	136	60	68
27	82	122	151	325	149	343	1,350	1,410	701	134	60	68
28	81	115	131	249	136	708	1,230	1,320	637	128	59	66
29	79	117	121	199	-----	910	1,170	1,200	584	124	54	65
30	80	105	89	155	-----	1,110	1,210	1,100	536	122	59	64
31	84	-----	63	150	-----	1,330	-----	1,060	-----	120	60	-----
TOTAL	2,380	4,089	3,290	6,010	4,766	9,100	46,540	47,770	22,386	7,872	2,402	1,863
MEAN	76.8	136	106	194	170	294	1,551	1,541	746	254	77.5	62.1
MAX	86	236	211	444	228	1,330	2,080	2,170	1,020	491	114	73
MIN	68	89	37	56	136	109	1,170	1,060	536	120	54	57
AC-FT	4,720	8,110	6,530	11,920	9,450	18,050	92,310	94,750	44,400	15,610	4,760	3,700
CAL YR 1968: TOTAL	75,990			MEAN 208	MAX 1,420	MIN 37	AC-FT 150,700					
WTR YR 1969: TOTAL	158,468			MEAN 434	MAX 2,170	MIN 37	AC-FT 314,300					

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DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	6.7	.01	155	10	1.4	3.7	.94	.08
2	0	0	0	0	7.5	0	139	11	1.3	2.7	.94	.03
3	0	0	0	0	5.6	0	132	10	.94	2.7	.94	0
4	0	0	0	0	3.0	0	72	10	.66	2.7	.84	.08
5	0	0	0	0	6.7	0	112	9.0	3.5	3.0	.84	.19
6	0	0	0	0	7.9	0	108	7.5	2.3	3.7	.94	.16
7	0	0	0	0	6.0	0	38	6.3	1.7	4.3	1.0	.13
8	0	0	0	0	3.7	0	32	5.6	1.6	3.7	.84	.02
9	0	0	0	0	4.9	0	56	5.3	7.1	3.0	.84	0
10	0	0	0	0	4.0	0	54	4.3	1.7	2.3	.75	.01
11	0	0	0	0	3.7	0	37	4.0	1.7	2.1	.58	.45
12	0	0	0	0	3.4	0	30	4.0	3.0	1.7	.58	.84
13	0	0	0	0	3.7	0	27	7.2	1.2	1.9	.66	.58
14	0	0	0	0	.58	0	24	8.6	.58	1.9	.58	.45
15	0	0	0	0	4.0	0	21	8.2	.35	1.9	.45	.35
16	0	0	0	0	2.5	0	19	7.9	1.9	1.9	.35	.35
17	0	0	0	0	1.0	0	18	6.7	2.6	1.7	.40	.27
18	0	0	0	0	1.2	0	18	6.0	3.3	1.7	.58	.10
19	0	0	0	0	.75	0	17	5.6	4.0	1.6	.45	.45
20	0	0	0	11	.75	0	16	6.0	5.6	1.6	.35	.75
21	0	0	0	88	.58	0	15	5.6	5.6	1.4	.31	1.0
22	0	0	0	115	.40	1.1	14	4.3	4.9	1.3	.19	.94
23	0	0	0	51	.27	8.3	14	3.4	5.3	1.4	.10	.58
24	0	0	0	23	.10	10	15	3.0	6.7	1.3	.06	.40
25	0	0	0	32	.35	7.9	14	2.7	6.0	1.3	0	.27
26	0	0	0	28	.05	9.4	13	2.3	6.3	1.4	.01	.19
27	0	0	0	22	0	66	12	2.1	6.0	1.3	.07	.10
28	0	0	0	15	.05	110	11	2.5	6.0	1.3	.07	.01
29	0	0	0	4.9	-----	91	10	2.1	5.6	1.3	.13	0
30	0	0	0	3.7	-----	94	11	1.6	4.6	1.2	.23	0
31	0	-----	0	5.3	-----	153	-----	1.6	-----	1.0	.19	-----
TOTAL	0	0	0	398.9	79.38	550.71	1,254	174.4	103.43	64.0	15.21	8.78
MEAN	0	0	0	12.9	2.84	17.8	41.8	5.63	3.45	2.06	.49	.29
MAX	0	0	0	115	7.9	153	155	11	7.1	4.3	1.0	1.0
MIN	0	0	0	0	0	0	10	1.6	.35	1.0	0	0
AC-FT	0	0	0	791	157	1,090	2,490	346	205	127	30	17
CAL YR 1968: TOTAL				65.33	MEAN .18	MAX 31	MIN 0				130	
WTR YR 1969: TOTAL				2,648.81	MEAN 7.26	MAX 155	MIN 0				5,250	

SNAKE RIVER MAIN STEM

13-1725. Snake River near Murphy, Idaho

LOCATION.--Lat 43°17'30", long 116°25'12", in SE¼ sec.35, T.1 S., R.1 W., Ada County, on right bank 4.2 miles downstream from Swan Falls powerplant, 7.5 miles northeast of Murphy, and at mile 453.5.

DRAINAGE AREA.--41,900 sq mi, approximately.

PERIOD OF RECORD.--August to October 1912, August 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,271.17 ft above mean sea level. Prior to Sept. 7, 1914, non-recording gage and Sept. 7, 1914, to Sept. 30, 1935, water-stage recorder at site 3.5 miles upstream at datum 9.79 ft higher.

AVERAGE DISCHARGE.--56 years, 10,730 cfs (7,774,000 acre-ft per year); 15-year base period (1952-67), 10,070 cfs.

EXTREMES.--Current year: Maximum discharge, 28,600 cfs Apr. 25 (gage height, 10.08 ft); minimum, 6,710 cfs July 8, 13; minimum gage height, 3.39 ft July 13; minimum daily, 6,760 cfs Aug. 17.

Period of record: Maximum discharge, 47,300 cfs June 22, 1918 (gage height, 13.95 ft, site and datum then in use); minimum recorded, 3,900 cfs July 9, 1949 (gage height, 2.53 ft); minimum daily, 5,440 cfs Aug. 4, 1914.

REMARKS.--Records excellent. Flow regulated by American Falls Reservoir 260.5 miles upstream (see sta 13-0765). Diurnal fluctuation caused by hydroelectric plants upstream. At times, practically entire flow is diverted at Milner during irrigation seasons. Surface-water diversions and ground-water withdrawals for irrigation of about 2,140,000 acres (1960 determination) above station.

REVISIONS (WATER YEARS).--WSP 1737: 1933(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.5	6,650
4.0	8,100
6.0	14,300
8.0	20,800
9.5	26,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9,130	11,900	10,300	12,800	16,700	16,100	23,600	23,600	9,420	9,310	7,850	7,970
2	9,310	12,300	11,500	12,200	16,300	15,200	24,500	18,800	9,090	8,940	7,510	8,430
3	9,190	12,500	11,700	13,700	16,900	16,100	22,800	17,700	8,910	8,240	7,450	7,920
4	9,530	13,200	11,000	14,900	17,600	16,100	22,000	18,400	9,240	7,370	7,100	7,820
5	9,400	13,100	12,900	15,600	18,600	16,000	20,400	19,500	9,360	7,570	6,950	7,580
6	9,510	12,600	12,400	13,500	18,000	15,500	15,800	17,400	8,580	6,900	7,520	8,110
7	9,900	12,600	12,300	16,800	15,800	15,800	17,500	18,600	8,750	6,870	7,920	7,960
8	9,580	12,000	12,400	12,500	17,800	16,200	15,100	17,300	8,270	7,130	7,400	7,960
9	9,370	14,300	11,300	16,100	17,400	15,700	12,300	14,400	8,520	8,260	7,170	8,120
10	9,550	11,900	12,000	15,000	15,100	15,800	15,100	11,100	9,510	8,350	7,570	8,130
11	9,540	13,500	12,000	14,200	17,300	15,300	13,900	13,500	9,690	7,880	7,290	8,300
12	9,560	11,700	11,800	15,300	15,700	15,700	14,100	10,600	10,300	6,850	8,280	8,550
13	9,870	13,900	13,400	18,400	16,100	16,400	14,800	13,000	9,950	7,140	7,760	8,260
14	9,620	12,800	12,600	19,100	16,500	15,400	13,400	10,100	9,930	6,860	7,260	7,850
15	9,650	13,300	12,500	20,100	16,600	15,400	14,700	11,100	9,510	6,850	6,900	8,160
16	10,200	12,400	12,400	19,400	17,200	16,400	12,900	11,400	9,050	6,920	6,870	8,810
17	10,600	12,600	12,500	16,800	15,200	15,700	11,000	11,200	9,080	7,100	6,760	8,490
18	11,000	12,300	13,700	17,900	16,700	16,400	9,640	10,800	8,340	7,380	7,120	8,750
19	10,900	11,200	13,900	18,300	16,200	16,100	9,920	9,160	8,340	6,930	6,910	8,670
20	11,900	12,200	12,100	17,400	16,100	16,500	11,600	10,700	8,400	7,370	7,110	8,690
21	12,000	11,400	12,300	20,500	16,200	18,400	12,000	10,700	7,990	6,910	7,230	8,960
22	12,200	10,900	12,300	24,300	15,900	17,900	13,500	10,700	8,000	6,920	7,200	9,820
23	12,500	11,100	12,400	23,600	16,900	17,000	17,300	9,520	8,070	7,370	7,420	9,980
24	12,000	12,700	12,500	19,600	15,900	16,800	23,800	9,600	8,400	7,330	7,190	10,100
25	11,800	11,200	12,200	17,700	15,400	19,400	26,000	9,710	8,280	7,060	7,120	9,880
26	11,200	10,600	13,900	18,500	16,400	20,300	22,500	9,310	8,680	6,930	7,040	10,300
27	11,100	11,400	13,900	20,600	16,600	20,900	19,700	9,480	10,700	6,970	7,130	9,700
28	11,600	11,500	13,700	20,100	16,200	22,300	22,900	9,050	9,400	7,580	7,000	9,210
29	11,600	11,400	13,100	18,400	-----	22,000	22,400	9,050	9,650	7,680	7,050	8,960
30	11,800	12,600	12,900	18,700	-----	19,000	24,400	9,280	9,320	7,360	7,330	9,170
31	11,700	-----	13,000	17,700	-----	19,600	-----	9,440	-----	7,910	7,650	-----
TOTAL	326,810	367,100	386,900	539,700	463,300	531,400	519,560	394,200	270,730	230,240	226,060	260,610
MEAN	10,540	12,240	12,480	17,410	16,550	17,140	17,320	12,720	9,024	7,427	7,292	8,687
MAX	12,500	14,300	13,900	24,300	18,600	22,300	26,000	23,600	10,700	9,310	8,280	10,300
MIN	9,130	10,600	10,300	12,200	15,100	15,200	9,640	9,050	7,990	6,850	6,760	7,580
AC-FT	648,200	728,100	767,400	1,070M	918,900	1,054M	1,031M	781,900	537,000	456,700	448,400	516,900

CAL YR 1968 : TOTAL 3,523,780 MEAN 9,628 MAX 18,500 MIN 6,040 AC-FT 6,989,000
WTR YR 1969 : TOTAL 4,516,610 MEAN 12,370 MAX 26,000 MIN 6,760 AC-FT 8,959,000

LOCATION.--Lat 41°55'20", long 116°04'10", in NW¼ sec.6, T.46 N., R.53 E., Elko County, on right bank 1,000 ft downstream from Skull Creek, 1 mile upstream from China diversion dam, and 2 miles southeast of Owyhee, and at mile 262.0.

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.

EXTREMES.--Current year: Maximum discharge, 1,310 cfs Apr. 6 (gage height, 9.11 ft); minimum, 15 cfs Oct. 7, 8, 11.

Period of record: Maximum discharge, 2,710 cfs May 3 or 4, 1952 (gage height, 10.07 ft); minimum, 1.8 cfs Nov. 16, 1961.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

CAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	23	42	40	84	57	972	836	149	83	134	123
2	17	23	37	43	84	52	1,040	830	139	68	136	122
3	17	32	35	42	90	54	1,060	852	129	58	143	122
4	19	41	35	42	85	53	928	839	119	65	142	122
5	16	32	37	45	82	50	1,090	831	119	78	139	118
6	16	28	39	48	76	49	1,220	753	118	84	136	64
7	15	26	38	52	70	53	936	867	109	112	132	58
8	16	26	35	41	65	49	795	903	104	76	130	57
9	16	48	35	37	65	56	753	957	107	64	130	56
10	16	65	33	40	64	58	750	1,030	112	54	130	56
11	15	48	33	45	62	60	784	1,030	270	52	130	56
12	16	43	30	55	63	56	769	1,010	265	52	127	55
13	16	38	30	75	63	52	819	1,020	257	54	125	37
14	19	33	32	95	65	52	810	864	246	57	125	30
15	25	35	35	100	69	52	697	719	256	60	125	30
16	24	31	35	85	59	51	618	786	267	65	128	27
17	23	30	33	70	57	53	626	816	143	73	130	22
18	21	35	32	60	63	58	702	792	119	80	133	21
19	20	72	31	75	61	59	677	757	109	83	130	22
20	22	59	28	130	56	62	788	721	110	85	121	21
21	19	50	28	200	55	66	850	685	102	90	122	21
22	19	46	27	190	52	73	980	577	95	94	126	21
23	19	44	31	150	54	86	1,120	643	92	100	126	21
24	19	42	40	120	60	82	1,130	622	146	105	125	21
25	19	38	38	90	60	87	1,060	616	130	109	125	20
26	19	35	34	110	61	110	988	572	116	110	125	19
27	19	35	32	120	58	170	916	288	102	110	123	19
28	19	37	35	105	64	258	892	228	113	110	122	19
29	20	40	30	100	-----	387	911	196	154	116	125	18
30	22	43	32	90	-----	562	895	176	146	116	124	18
31	24	-----	36	86	-----	810	-----	161	-----	144	124	-----
TOTAL MEAN	585 18.9	1,178 39.3	1,048 33.8	2,581 83.3	1,847 66.0	3,777 122	26,576 886	21,977 709	4,443 148	2,607 84.1	3,993 129	1,416 47.2
MAX	25	72	42	200	90	810	1,220	1,030	270	144	143	123
MIN	15	23	27	37	52	49	618	161	92	52	121	18
AC-FT	1,160	2,340	2,080	5,120	3,660	7,490	52,710	43,590	8,810	5,170	7,920	2,810
CAL YR 1968: TOTAL	18,335.2			MEAN	50.1	MAX	353	MIN	8.6	AC-FT	36,370	
WTR YR 1969: TOTAL	72,028			MEAN	197	MAX	1,220	MIN	15	AC-FT	142,900	

13-1778. South Fork Owyhee River near Whiterock, Nev.

LOCATION.--Lat 41°48'00", long 116°29'00", in NE¼ sec.16, T.45 N., R.49 E., Elko County, on left bank 500 ft downstream from Rye Grass Creek, 1.8 miles upstream from Chimney Creek, and 17 miles northwest of Whiterock, and at mile 54.0.

DRAINAGE AREA.--1,080 sq mi, approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft (from topographic map).

AVERAGE DISCHARGE.--14 years, 145 cfs (105,100 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,700 cfs Apr. 6 (gage height, 6.37 ft); minimum, 1.4 cfs July 30. Period of record: Maximum discharge, 3,830 cfs June 5, 1963 (gage height, 7.55 ft); no flow Oct. 1-12, 1955, part of Sept. 17, 28, 1960, Aug. 27, 31, 1961.

REMARKS.--Records good except those for winter months, which are fair. Many diversions for irrigation of hay meadows above station. Flow partly regulated by four small reservoirs (total capacity, about 16,100 acre-ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	36	65	66	214	162	2,130	696	181	176	4.1	6.3
2	25	34	61	70	192	153	2,230	654	182	146	11	7.8
3	25	49	49	71	143	155	2,280	642	164	137	16	4.8
4	26	67	75	80	126	150	2,030	618	138	124	21	3.6
5	24	63	71	90	136	138	2,020	606	97	134	22	7.7
6	25	52	62	100	146	147	2,350	536	98	121	36	16
7	25	49	64	95	138	147	2,480	516	95	174	44	32
8	26	50	67	85	118	144	2,170	576	95	162	34	20
9	26	56	59	70	128	134	1,970	660	96	153	54	15
10	26	85	68	76	146	131	1,740	738	97	135	68	14
11	25	75	66	80	153	131	1,610	786	298	115	62	26
12	25	70	54	90	176	131	1,570	884	366	96	65	69
13	24	67	42	100	187	127	1,560	1,050	325	94	56	51
14	30	56	55	110	164	121	1,570	1,130	335	95	55	42
15	35	56	91	100	177	124	1,530	1,020	311	77	55	39
16	37	66	75	93	172	134	1,320	898	348	60	59	36
17	34	59	64	93	155	258	1,180	822	284	52	60	34
18	34	62	53	101	158	378	1,180	702	245	46	57	25
19	33	139	45	125	165	275	1,210	636	197	42	54	28
20	32	140	40	216	159	262	1,090	550	186	41	54	29
21	31	98	45	572	155	319	1,040	513	205	30	54	27
22	32	84	50	720	153	467	1,120	485	205	34	48	26
23	32	80	55	410	145	496	1,270	447	213	28	36	26
24	32	77	65	316	139	354	1,330	387	289	25	30	25
25	31	73	70	334	142	403	1,350	342	337	26	22	24
26	31	64	70	467	151	550	1,210	331	341	26	7.9	25
27	30	66	65	441	141	834	1,040	293	296	27	5.3	25
28	31	65	60	311	140	1,050	905	256	265	25	4.9	49
29	30	59	55	253	-----	1,310	828	233	225	27	4.8	54
30	34	68	55	213	-----	1,550	744	214	211	14	4.7	55
31	36	-----	60	207	-----	1,810	-----	195	-----	2.2	5.4	-----
TOTAL	913	2,065	1,876	6,155	4,319	12,545	46,057	18,416	6,725	2,444.2	1,110.1	842.2
MEAN	29.5	68.8	60.5	199	154	405	1,535	594	224	78.8	35.8	28.1
MAX	37	140	91	720	214	1,810	2,480	1,130	366	176	68	69
MIN	24	34	40	66	118	121	744	195	95	2.2	4.1	3.6
AC-FT	1,810	4,100	3,720	12,210	8,570	24,880	91,350	36,530	13,340	4,850	2,200	1,670

CAL YR 1968: TCTAL 15,943.8 MEAN 43.6 MAX 400 MIN 2.8 AC-FT 31,620
WTR YR 1969: TCTAL 103,467.5 MEAN 283 MAX 2,480 MIN 2.2 AC-FT 205,200

PEAK DISCHARGE (BASE, 600 CFS).--Jan. 22 (0930) 840 cfs (4.06 ft); Apr. 6 (2230) 2,700 cfs (6.37 ft).

13-1780. Jordan Creek above Lone Tree Creek, near Jordan Valley, Oreg.

LOCATION.--Lat 42°52'27", long 116°57'12", in SW¼NE¼ sec.29, T.6 S., R.5 W., Boise meridian, Owyhee County, on right bank 0.2 mile upstream from Morgan Ranchhouse, 0.9 mile downstream from proposed damsite, 1.4 miles downstream from Williams Creek, 3.6 miles upstream from Lone Tree Creek, 4 miles east of the Idaho-Oregon State line, 9 miles southeast of Jordan Valley, and at mile 54.4.

DRAINAGE AREA.--440 sq mi, approximately. Mean altitude, 5,780 ft.

PERIOD OF RECORD.--April 1955 to current year. October 1945 to January 1953 at site 1.6 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 4,499.73 ft above mean sea level, unadjusted. Apr. 23, 1955, to Jan. 31, 1965, at site 0.4 mile upstream at datum 5.73 ft higher. Prior to June 14, 1952, water-stage recorder, and June 14, 1952, to Jan. 31, 1953, nonrecording gage, at site 1.6 miles downstream at different datum. Nonrecording gage at site 3.6 miles downstream at datum 4,404.78 ft above mean sea level, used as supplementary gage Feb. 3 to Aug. 31, 1965.

AVERAGE DISCHARGE.--21 years (1945-52, 1955-69), 184 cfs (133,300 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,720 cfs Jan. 21 (gage height, 8.01 ft); minimum, 2.2 cfs Sept. 18-23; minimum gage height, 3.45 ft Aug. 13, 14.

Period of record: Maximum discharge, 7,530 cfs Dec. 24, 1964 (gage height, 11.05 ft, site and datum then in use), from rating curve extended above 4,210 cfs; no flow part of each day Oct. 4, 5, 1948.

REMARKS.--Records fair. Diversions above station for irrigation. Records of suspended sediment loads for the water year 1969 are published in Part 2 of this report.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 17 to Jan. 19, Sept. 10-30; stage-discharge relation affected by ice Nov. 29-30, Dec. 2-3, 6-7, 12-15, 17-27, Dec. 29 to Jan. 2, Jan. 4-13)

Oct. 1 to Jan. 20					Jan. 21 to Sept. 30				
3.8	3.5	5.0	170	3.4	1.5	4.0	48	5.5	480
3.9	6.0	5.4	316	3.5	3.8	4.3	95	6.0	750
4.0	9.4	6.0	633	3.6	7.8	4.6	158	7.0	1,560
4.1	14	7.0	1,450	3.7	15	5.0	276	7.6	2,210
4.3	31	7.5	1,990	3.8	24				
4.6	72								

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	16	48	47	223	108	1,760	887	252	104	7.8	3.8
2	6.4	17	46	45	211	97	1,820	798	223	86	7.0	3.8
3	6.0	19	44	48	186	106	1,800	726	205	62	6.6	3.5
4	6.0	24	44	65	191	99	1,580	690	197	61	5.4	3.8
5	5.5	22	42	120	166	99	1,880	762	189	61	5.0	3.8
6	5.3	22	35	140	151	108	2,140	824	189	62	4.6	3.8
7	6.0	21	35	140	142	104	1,770	908	208	65	4.6	3.8
8	8.1	21	42	120	129	106	1,620	1,020	205	59	4.2	4.2
9	8.4	58	38	100	135	88	1,800	1,060	203	55	3.8	3.1
10	7.8	74	38	100	144	90	1,750	1,100	214	56	3.5	3.3
11	7.8	49	39	100	151	108	1,640	1,090	308	54	2.8	4.2
12	8.1	48	35	100	180	114	1,680	982	239	49	2.8	3.3
13	8.4	48	35	190	168	110	1,850	929	211	45	2.6	2.6
14	10	38	37	230	140	108	1,750	950	189	41	2.8	2.6
15	14	42	38	170	158	114	1,480	880	178	40	3.1	2.4
16	23	40	39	141	146	135	1,450	762	166	40	3.1	2.4
17	26	39	37	120	129	168	1,530	672	144	39	3.1	2.4
18	25	42	37	113	131	194	1,690	648	133	27	3.1	2.4
19	24	68	37	367	124	170	1,510	630	122	22	3.8	2.2
20	24	76	35	1,900	120	194	1,570	585	110	15	3.8	2.2
21	28	76	34	1,990	120	220	1,620	500	106	12	3.5	2.2
22	30	74	34	1,150	120	280	1,840	453	104	11	3.3	2.2
23	25	74	42	708	114	380	1,920	431	104	13	3.3	2.2
24	20	72	65	535	106	280	1,690	426	144	15	3.3	2.4
25	17	66	70	480	114	335	1,400	426	151	16	3.3	2.4
26	17	61	70	505	99	480	1,140	405	149	13	3.3	2.6
27	17	63	70	363	99	672	998	380	135	13	3.3	2.6
28	17	52	64	312	110	817	958	351	127	12	3.5	2.6
29	16	52	62	256	-----	1,050	1,010	316	118	8.5	3.5	2.6
30	16	50	56	252	-----	1,400	908	287	110	8.5	3.8	2.6
31	16	-----	50	242	-----	1,780	-----	276	-----	7.8	4.0	-----
TOTAL	455.9	1,424	1,398	11,149	4,007	10,114	47,554	21,154	5,133	1,172.8	121.6	88.0
MEAN	14.7	47.5	45.1	360	143	326	1,585	682	171	37.8	3.92	2.93
MAX	30	76	70	1,990	223	1,780	2,140	1,100	308	104	7.8	4.2
MIN	5.3	16	34	45	99	88	908	276	104	7.8	2.6	2.2
AC-FT	904	2,820	2,770	22,110	7,950	20,060	94,320	41,960	10,180	2,330	241	175

CAL YR 1968: TOTAL 22,720.9 MEAN 62.1
WTR YR 1969: TOTAL 103,771.3 MEAN 284

MAX 621 MIN 2.9
MAX 2,140 MIN 2.2

AC-FT 45,070
AC-FT 205,800

PEAK DISCHARGE (BASE, 700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-21	1515	8.01	2,720	4-23	0300	7.47	2,070
4-6	1000	7.59	2,270	5-11	0030	6.54	1,150

OWYHEE RIVER BASIN

13-1810. Owyhee River near Rome, Oreg.

LOCATION.--Lat 42°52'00", long 117°39'00", in SE¼NE¼ sec.14, T.31 S., R.41 E., Malheur County, on right bank 0.5 mile downstream from Jordan Creek, 2.6 miles north of Rome, and at mile 117.0.

DRAINAGE AREA.--About 8,000 sq mi.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,344.20 ft above mean sea level. Prior to Feb. 10, 1960, at datum 0.24 ft lower.

AVERAGE DISCHARGE.--20 years, 827 cfs (599,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 20,000 cfs Apr. 6 (gage height, 13.11 ft); minimum, 103 cfs Aug. 7. Period of record: Maximum discharge, 33,500 cfs Dec. 24, 1964 (gage height, 16.7 ft, from floodmark); minimum, 42 cfs Aug. 12, 1954, July 28, Aug. 5, 1961, July 31, 1968.

REMARKS.--Records good. Flow regulated by Antelope Reservoir (capacity, 55,000 acre-ft), Wild Horse Reservoir (capacity, 32,690 acre-ft), and numerous small reservoirs. Diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	132	246	324	1,060	502	15,100	3,390	815	600	127	122
2	106	132	231	338	1,070	514	15,500	3,190	760	522	127	140
3	106	140	219	370	935	526	16,300	3,000	720	474	125	131
4	104	150	237	464	825	546	14,000	2,820	680	434	127	142
5	106	165	222	668	785	538	15,000	2,710	600	398	114	148
6	108	170	234	656	755	538	16,800	2,640	530	378	108	158
7	111	168	222	604	740	518	14,100	2,630	502	362	105	150
8	113	180	216	576	680	522	12,200	2,660	462	346	112	155
9	116	183	240	460	650	510	11,100	2,670	446	343	114	155
10	118	318	219	412	645	490	11,300	2,800	434	354	118	160
11	118	261	228	380	675	462	11,200	2,890	518	350	122	160
12	120	234	228	388	870	426	10,500	2,950	590	329	136	158
13	123	252	213	580	1,210	438	10,700	2,960	635	304	133	162
14	125	276	192	805	1,070	438	10,200	3,030	880	287	136	165
15	132	255	189	870	986	438	8,610	3,280	1,010	266	142	140
16	132	240	249	1,020	835	482	7,470	3,060	1,020	252	140	138
17	132	237	225	900	775	565	7,200	2,780	875	252	140	160
18	132	231	216	648	775	2,340	7,030	2,470	830	239	142	160
19	132	264	234	568	760	4,090	6,840	2,260	745	218	145	162
20	135	405	231	2,800	670	3,150	6,140	2,050	665	200	148	160
21	138	321	201	8,900	610	2,260	5,870	2,000	595	190	145	155
22	138	468	168	11,400	625	1,840	5,700	1,820	530	172	148	148
23	135	422	198	6,950	615	2,380	5,850	1,700	506	170	145	142
24	135	352	225	3,920	630	3,080	5,870	1,580	534	160	142	138
25	135	307	422	2,690	655	2,200	5,630	1,470	542	160	131	136
26	135	279	448	2,510	560	2,130	5,170	1,360	575	148	129	133
27	135	314	394	2,760	522	3,260	4,670	1,280	715	148	122	131
28	135	276	492	2,540	518	5,310	4,150	1,230	705	152	127	129
29	132	255	480	1,660	-----	7,280	3,820	1,120	670	140	127	125
30	132	240	360	1,330	-----	10,100	3,670	956	660	133	125	122
31	132	-----	346	1,090	-----	14,900	-----	870	-----	131	122	-----
TOTAL	3,859	7,627	8,225	59,581	21,506	72,773	277,690	71,626	19,749	8,612	4,024	4,385
MEAN	124	254	265	1,922	768	2,348	9,256	2,311	658	278	130	146
MAX	138	468	492	11,400	1,210	14,900	16,800	3,390	1,020	600	148	165
MIN	104	132	168	324	518	426	3,670	870	434	131	105	122
AC-FT	7,650	15,130	16,310	118,200	42,660	144,300	550,800	142,100	39,170	17,080	7,980	8,700
CAL YR 1968 : TOTAL	92,071			MEAN 252		MAX 5,010	MIN 44	AC-FT 182,600				
WTR YR 1969 : TOTAL	559,657			MEAN 1,533		MAX 16,800	MIN 104	AC-FT 1,110,000				

PEAK DISCHARGE (BASE, 5,400 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
1-21	2200	11.46	13,500	4- 3	1500	12.95	19,400
3-18	2100	7.39	5,700	4- 6	1600	13.11	20,000
3-31	1600	12.34	17,500				

13-1850. Boise River near Twin Springs, Idaho

LOCATION.--Lat 43°39'22", long 115°43'34", in NW¼NE¼ sec.27, T.4 N., R.6 E., Boise County, on right bank 0.7 mile upstream from Birch Creek, 1.8 miles upstream from maximum flow line of Arrowrock Reservoir, 3.2 miles downstream from Twin Springs, 13 miles upstream from Arrowrock Dam, and at mile 98.1.

DRAINAGE AREA.--830 sq mi, approximately. Mean altitude, 6,350 ft.

PERIOD OF RECORD.--March 1911 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,256.34 ft (U.S.C. & G.S., preliminary, unadjusted). March 1911 to Apr. 3, 1915, nonrecording gage, and Apr. 4, 1915, to Sept. 30, 1965, water-stage recorder at site 0.3 mile downstream at datum 5.26 ft lower.

AVERAGE DISCHARGE.--58 years, 1,179 cfs (19.29 inches per year, 854,200 acre-ft per year); 15-year base period (1952-67), 1,252 cfs.

EXTREMES.--Current year: Maximum discharge, 6,860 cfs May 15 (gage height, 8.73 ft); minimum, 234 cfs Dec. 21 (gage height, 3.93 ft).

Period of record: Maximum discharge, 18,800 cfs Dec. 23, 1964 (gage height, 12.20 ft, from floodmark, site and datum then in use); minimum, 109 cfs Dec. 10, 1944; minimum gage height, 1.48 ft Dec. 6, 7, 1960 (site and datum then in use) (published in error in 1968).

REMARKS.--Records excellent.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 21-23, Dec. 29 to Jan. 1)

Oct. 1 to Mar. 26		Mar. 27 to May 26		May 27 to Sept. 30	
4.0	252	5.3	1,390	4.2	319
4.5	601	6.0	2,210	4.5	505
5.0	1,090	7.0	3,640	5.0	930
5.8	1,970	8.6	6,590	8.2	5,780

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	396	478	584	460	742	551	2,730	3,050	4,230	1,370	589	368
2	382	470	567	494	693	542	2,890	2,820	3,970	1,330	581	362
3	375	478	567	455	665	576	3,230	2,700	4,100	1,350	558	362
4	375	534	584	462	629	559	3,080	2,660	4,430	1,360	543	357
5	368	486	601	509	638	619	3,460	2,990	4,910	1,330	528	368
6	362	432	542	675	638	638	4,310	3,620	4,860	1,340	520	368
7	362	439	462	780	610	584	4,110	4,330	4,570	1,470	513	362
8	355	455	534	712	567	584	3,240	5,080	4,050	1,340	505	357
9	355	761	509	619	567	559	3,220	5,680	4,300	1,260	484	346
10	362	800	525	619	567	525	3,580	6,100	4,020	1,240	470	368
11	355	722	534	601	567	509	3,610	6,300	3,830	1,210	463	398
12	525	1,030	525	629	567	534	3,660	6,340	3,370	1,200	477	398
13	665	1,030	375	742	559	567	3,880	6,140	3,320	1,150	470	379
14	593	820	470	990	509	601	3,740	6,510	2,960	1,100	456	362
15	610	780	509	930	551	656	3,500	6,530	2,780	1,050	449	351
16	593	771	551	790	551	732	3,380	5,760	2,620	990	435	357
17	567	722	478	751	525	780	3,540	5,400	2,410	960	429	351
18	559	693	455	656	494	850	4,060	5,590	2,340	921	429	346
19	542	742	478	751	501	830	3,880	5,530	2,320	876	416	362
20	534	722	418	850	517	800	3,610	5,120	2,250	840	410	423
21	567	722	300	1,950	551	850	3,640	4,520	2,180	822	404	470
22	525	800	270	1,970	567	970	4,520	4,340	2,100	795	398	398
23	525	850	540	1,400	567	1,070	5,840	4,610	1,930	768	385	379
24	517	790	576	1,130	559	1,010	5,900	5,170	2,350	741	379	379
25	509	780	534	1,080	559	1,000	4,750	5,700	2,180	733	368	373
26	509	665	509	1,100	534	1,120	3,950	6,020	1,940	706	368	362
27	501	684	478	990	501	1,410	3,480	5,740	1,760	663	368	357
28	501	629	470	910	517	1,520	3,340	4,950	1,650	672	368	346
29	494	534	410	810	-----	1,760	3,380	4,430	1,570	655	368	346
30	501	656	380	722	-----	2,040	3,220	4,460	1,470	630	373	357
31	501	-----	400	751	-----	2,590	-----	4,730	-----	606	373	-----
TOTAL	14,885	20,475	15,135	26,288	16,012	27,936	112,730	152,920	90,770	31,478	13,877	11,112
MEAN	480	683	488	848	572	901	3,758	4,933	3,026	1,015	448	370
MAX	665	1,030	601	1,970	742	2,590	5,900	6,530	4,910	1,470	589	470
MIN	355	432	270	455	494	509	2,730	2,660	1,470	606	368	346
CFSM	.58	.82	.59	1.02	.69	1.09	4.53	5.94	3.65	1.22	.54	.45
IN.	.67	.92	.68	1.18	.72	1.25	5.05	6.85	4.07	1.41	.62	.50
AC-FT	29,520	40,610	30,020	52,140	31,760	55,410	223,600	303,300	180,000	62,440	27,520	22,040
CAL YR 1968: TOTAL	347,208			MEAN 949		MAX 3,690		MIN 240		CFSM 1.14	IN 15.56	AC-FT 688,700
WTR YR 1969: TOTAL	533,618			MEAN 1,462		MAX 6,530		MIN 270		CFSM 1.76	IN 23.91	AC-FT 1,058,000

PEAK DISCHARGE (BASE, 3,700 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-6	2200	7.60	4,640	5-15	0300	8.73	6,860
4-24	0100	8.52	6,420	5-26	0600	8.46	6,300

13-1860. 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., Elmore County, on right bank 2.5 miles upstream from Deer Creek, 8 miles southwest of Featherville, and at mile 59.0.

DRAINAGE AREA.--635 sq mi. Mean altitude, 6,840 ft.

PERIOD OF RECORD.--April 1945 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,220 ft (from topographic map of Bureau of Reclamation).

AVERAGE DISCHARGE.--24 years, 785 cfs (16.79 inches per year, 568,700 acre-ft per year); 15-year base period (1952-67), 765 cfs.

EXTREMES.--Current year: Maximum discharge, 5,960 cfs May 15 (gage height, 6.82 ft); minimum, 131 cfs Dec. 22 (gage height, 1.20 ft).

Period of record: Maximum discharge, 7,580 cfs May 24, 1956 (gage height, 8.62 ft); minimum, 30 cfs Feb. 10, 1949 (gage height, 0.60 ft), result of snowslide upstream.

REMARKS.--Records excellent. No regulation. Small ranch diversions above station.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 13				Apr. 14 to Sept. 30			
1.2	172	3.0	1,050	1.4	194	4.0	2,050
1.5	262	4.0	1,910	1.5	226	6.0	4,650
2.0	453	4.8	2,760	2.0	425	7.0	6,270
				3.0	1,070		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	239	275	285	259	310	275	1,340	2,400	3,710	948	360	210
2	238	272	253	291	304	282	1,450	2,240	3,460	901	355	207
3	232	283	274	272	301	278	1,700	2,140	3,470	908	333	207
4	230	307	309	265	291	272	1,840	2,120	3,730	893	329	207
5	229	284	317	284	280	273	2,010	2,480	4,080	878	329	210
6	227	258	283	319	305	283	2,260	3,070	4,060	932	325	210
7	229	269	246	323	317	276	2,070	3,760	3,890	979	317	207
8	227	274	260	294	303	273	1,850	4,440	3,450	878	309	207
9	224	400	268	250	305	272	2,030	5,090	3,340	813	297	207
10	228	397	273	258	308	250	2,360	5,420	3,220	799	293	226
11	230	353	305	260	304	245	2,470	5,580	3,130	764	290	223
12	334	385	285	266	307	257	2,520	5,620	2,700	744	290	250
13	375	371	215	321	300	269	2,690	5,500	2,560	731	286	243
14	341	299	229	351	271	271	2,660	5,760	2,340	698	282	233
15	338	316	265	331	267	289	2,490	5,710	2,220	667	275	226
16	321	342	288	301	301	303	2,400	5,220	2,110	630	260	223
17	304	320	243	285	280	318	2,600	4,930	1,870	601	257	210
18	299	331	213	268	261	349	2,960	5,100	1,800	590	257	220
19	291	329	236	277	255	333	2,960	5,010	1,760	560	253	236
20	289	317	241	365	273	331	2,760	4,590	1,770	540	250	290
21	293	312	201	533	282	339	2,840	4,080	1,700	510	246	313
22	284	329	175	547	291	361	3,570	3,890	1,630	490	240	260
23	282	329	227	416	288	400	4,620	4,080	1,530	470	236	250
24	281	312	274	328	284	391	4,430	4,520	1,630	450	229	246
25	279	320	292	342	279	407	3,540	5,020	1,480	440	226	243
26	284	277	294	371	278	469	2,960	5,360	1,330	430	223	236
27	279	298	281	383	259	598	2,640	5,140	1,220	410	220	233
28	277	274	274	359	248	699	2,610	4,560	1,130	400	216	226
29	277	238	228	327	-----	845	2,690	4,040	1,070	390	213	226
30	282	321	212	314	-----	1,030	2,510	3,960	1,020	380	210	226
31	283	-----	222	307	-----	1,280	-----	4,060	-----	370	213	-----
TOTAL	8,526	9,392	7,968	10,067	8,052	12,518	77,830	134,890	72,410	20,194	8,419	6,911
MEAN	275	313	257	325	288	404	2,594	4,351	2,414	651	272	230
MAX	375	400	317	547	317	1,280	4,620	5,760	4,080	979	360	313
MIN	224	238	175	250	248	245	1,340	2,120	1,020	370	210	207
CFSM	.43	.49	.40	.51	.45	.64	4.09	6.85	3.80	1.03	.43	.36
IN.	.50	.55	.47	.59	.47	.73	4.56	7.90	4.24	1.18	.49	.40
AC-FT	16,910	18,630	15,800	19,970	15,970	24,830	154,400	267,000	143,600	40,050	16,700	13,710
CAL YR 1968: TOTAL	193,364				MEAN 528	MAX 2,210	MIN 164	CFSM .83	IN 11.32	AC-FT 383,500		
WTR YR 1969: TOTAL	377,177				MEAN 1,033	MAX 5,760	MIN 175	CFSM 1.63	IN 22.09	AC-FT 748,100		

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-23	2400	6.20	4,850	5-26	0600	6.56	5,540
5-15	0400	6.82	5,960				

195

LOCATION.--Lat 43°21'10", long 115°23'20", in sec.9, T.1 S., R.9 E., Elmore County, Boise National Forest, on right bank 400 ft downstream from Little Camas Reservoir, 4 miles northeast of Bennett, and 22 miles north-east of Mountain Home.

GAGE.--Nonrecording gage read once daily during periods of flow. 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, nonrecording gage, at datum 6.00 ft lower. May 12, 1924, to Sept. 30, 1929, water-stage recorder at present datum.

REMARKS.--Records fair. Flow regulated by Little Camas Reservoir 400 ft upstream (capacity, 22,300 acre-ft). No diversion above station. Canal is an interbasin diversion and diverts from Little Camas Reservoir (South Fork Boise River drainage) in sec.9, T.1 S., R.9 E., and discharges into Long Tom Creek basin, where water is stored in Long Tom Reservoir for irrigation of 5,000 acres of land near Mountain Home.

COOPERATION.--Gage readings furnished by Mountain Home Irrigation District.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	43	40	52	47	36
2	0	0	0	0	0	0	0	43	40	52	48	36
3	0	0	0	0	0	0	0	43	40	52	48	36
4	0	0	0	0	0	0	0	43	40	52	49	36
5	0	0	0	0	0	0	0	36	40	52	49	36
6	0	0	0	0	0	0	0	22	41	51	49	36
7	0	0	0	0	0	0	0	20	41	51	50	36
8	0	0	0	0	0	0	0	20	42	51	50	36
9	0	0	0	0	0	0	0	20	42	51	50	36
10	0	0	0	0	0	0	0	29	43	51	50	36
11	0	0	0	0	0	0	0	36	43	44	50	36
12	0	0	0	0	0	0	0	36	44	39	50	36
13	0	0	0	0	0	0	0	36	44	39	50	36
14	0	0	0	0	0	0	0	36	45	39	50	36
15	0	0	0	0	0	0	0	36	45	39	50	14
16	0	0	0	0	0	0	0	36	46	42	50	0
17	0	0	0	0	0	0	0	36	18	49	50	0
18	0	0	0	0	0	0	0	36	0	49	50	0
19	0	0	0	0	0	0	0	37	0	49	50	0
20	0	0	0	0	0	0	0	37	0	48	50	0
21	0	0	0	0	0	0	0	38	27	48	50	0
22	0	0	0	0	0	0	0	38	45	48	50	0
23	0	0	0	0	0	0	0	38	48	48	47	0
24	0	0	0	0	0	0	0	38	50	48	46	0
25	0	0	0	0	0	0	22	39	51	47	46	0
26	0	0	0	0	0	0	43	39	20	47	46	0
27	0	0	0	0	0	0	43	39	24	47	46	0
28	0	0	0	0	0	0	43	39	53	47	46	0
29	0	0	0	0	-----	0	43	39	53	47	46	0
30	0	0	0	0	-----	0	43	39	53	47	41	0
31	0	-----	0	0	-----	0	-----	40	-----	0	0	-----
TOTAL	0	0	0	0	0	0	237	1,107	1,118	1,426	1,454	518
MEAN	0	0	0	0	0	0	7.90	35.7	37.3	46.0	46.9	17.3
MAX	0	0	0	0	0	0	43	43	53	52	50	36
MIN	0	0	0	0	0	0	0	20	0	0	0	0
AC-FT	0	0	0	0	0	0	470	2,200	2,220	2,830	2,880	1,030

AC-FT 6,070

AC-FT 11,620

13-1900. Anderson Ranch Reservoir at Anderson Ranch Dam, Idaho

LOCATION.--Lat 43°21'30", long 115°26'40", in SE¼ sec.1, T.1 S., R.8 E., Elmore County, Boise National Forest, at inlet structure of outlet works of dam on South Fork Boise River, 1.5 miles downstream from Camas Creek, 3 miles northwest of Bennett (Dixie Store), and at mile 43.5.

DRAINAGE AREA.--980 sq mi, approximately.

PERIOD OF RECORD.--December 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to June 8, 1962, nonrecording gage or supplementary gage in powerhouse read once daily.

EXTREMES.--Current year: Maximum contents, 465,500 acre-ft June 13 (elevation, 4,196.27 ft); minimum, 215,100 acre-ft Mar. 27 (elevation, 4,129.78 ft).

Period of record: 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, 63,830 acre-ft Jan. 6, 1962 (elevation, 4,058.35 ft).

REVISIONS.--Minimum contents for the water year 1968 has been revised to 276,900 acre-ft Sept. 30, 1968 (elev., 4,149.37 ft), superseding figure published in WRD for Idaho, 1968.

REMARKS.--Reservoir is formed by earth-fill dam. Storage began Dec. 15, 1945. Usable contents, 464,200 acre-ft between elevations 3,992 and 4,196 ft (top of spillway gates). Elevation of spillway crest, 4,174 ft, and of top of dam, 4,206 ft. Dead storage below 3,992 ft is 28,980 acre-ft. Figures given herein represent usable contents. Water is used for irrigation in Boise valley and for power production.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

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

4,129.0	212,800	4,180.0	392,400
4,140.0	246,100	4,190.0	436,300
4,160.0	314,400	4,196.3	465,600

CONTENTS, IN ACRE-FT, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274,800	234,800	231,000	225,600	228,300	227,700	226,700	320,100	445,400	462,300	440,900	391,100
2	272,300	235,200	230,400	224,600	228,300	228,000	231,500	317,400	448,500	461,500	439,500	389,400
3	269,900	235,700	230,000	224,000	227,900	226,800	236,800	314,600	451,500	461,400	438,100	387,800
4	267,600	235,900	229,600	223,700	227,600	226,200	242,700	311,700	455,000	461,600	436,500	386,800
5	265,300	236,200	229,400	223,500	227,200	223,600	249,500	309,900	458,500	461,900	435,100	386,600
6	262,900	235,900	229,500	222,800	226,900	223,600	257,400	310,000	460,100	462,400	433,600	386,300
7	260,600	235,800	229,600	222,500	226,600	223,500	264,400	311,700	460,800	462,800	432,000	386,400
8	258,000	235,700	229,700	222,500	226,700	223,800	268,400	314,900	460,700	462,800	430,400	385,700
9	255,600	235,300	229,700	222,000	227,100	224,000	271,700	319,900	461,100	462,400	429,100	385,600
10	253,000	237,000	229,600	221,400	226,900	223,900	276,200	325,400	463,100	462,000	427,500	385,700
11	250,700	237,500	229,700	221,400	226,700	223,600	280,600	331,100	464,300	461,400	425,900	385,700
12	248,500	237,800	229,700	221,900	226,800	223,300	285,000	336,700	465,000	461,300	424,300	385,600
13	246,500	237,700	229,500	221,700	227,000	223,100	289,800	341,600	465,500	461,400	422,700	385,700
14	244,300	237,000	229,200	221,600	227,000	222,600	293,600	347,100	465,100	461,000	421,100	385,800
15	242,200	236,600	229,200	221,600	227,300	221,700	295,900	352,200	465,200	460,300	419,500	385,900
16	240,000	236,300	229,300	221,400	227,700	221,200	297,500	357,400	465,200	459,600	417,800	386,000
17	238,600	236,700	228,900	221,300	227,300	220,500	299,700	360,700	464,700	458,800	416,200	386,200
18	238,600	236,200	228,700	221,300	226,700	220,600	302,800	364,200	464,700	457,900	414,500	386,500
19	238,500	235,400	228,200	222,000	226,500	220,700	305,500	368,600	464,700	456,900	412,800	387,000
20	238,600	234,400	227,700	222,300	226,600	218,900	307,900	373,600	464,800	455,800	411,200	387,700
21	238,100	233,800	227,600	223,200	226,700	216,400	309,800	378,900	464,700	454,800	409,600	388,300
22	236,800	233,100	227,600	224,200	227,000	216,300	313,300	384,800	464,700	453,700	408,000	388,700
23	236,400	232,700	227,700	224,500	227,400	217,000	319,400	391,100	464,700	452,600	406,300	388,800
24	236,100	233,000	227,700	224,400	227,400	215,700	324,500	398,100	465,000	451,400	404,700	388,700
25	235,900	232,400	228,000	224,700	227,400	215,300	326,300	406,200	464,800	450,200	403,000	388,200
26	235,900	231,700	227,800	225,500	227,600	215,400	326,400	415,100	464,400	449,000	401,300	387,300
27	236,100	231,300	227,600	225,600	227,700	215,100	325,700	422,900	464,300	447,700	399,600	386,400
28	235,500	231,400	227,100	225,600	227,700	216,000	324,200	428,600	463,900	446,400	397,900	386,300
29	235,300	231,100	226,900	226,500	-----	217,400	323,700	433,200	463,400	445,000	396,200	385,100
30	235,400	230,900	226,400	227,500	-----	219,500	322,000	437,400	463,100	443,700	394,500	384,500
31	234,700	-----	225,500	228,500	-----	222,400	-----	441,800	-----	442,400	392,900	-----
(†)	4,136.37	4,135.12	4,133.32	4,134.32	4,134.06	4,132.30	4,162.08	4,191.22	4,195.78	4,191.34	4,180.10	4,178.10
(‡)	-42,200	-3,800	-5,400	+3,000	-800	-5,300	+99,600	+119,800	+21,300	-20,700	-49,500	-8,400
MAX	274,800	237,800	231,000	228,500	228,300	228,000	326,400	441,800	465,500	462,800	440,900	391,100
MIN	234,700	230,900	225,500	221,300	226,500	215,100	226,700	309,900	445,400	442,400	392,900	384,500

CAL YR 1968..... ‡ -111,300

WTR YR 1969..... ‡ +107,600

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

13-1905. South Fork Boise River at Anderson Ranch Dam, Idaho

LOCATION (revised).--Lat 43°20'30", long 115°28'40", in NW¼ sec.14, T.1 S., R.8 E., Elmore County, Boise National Forest, on right bank 600 ft upstream from Dixie Creek, 1.8 miles downstream from Anderson Ranch Reservoir, 2.2 miles northwest of Bennett (Dixie Store), and at mile 41.5.

DRAINAGE AREA.--982 sq mi.

PERIOD OF RECORD.--April 1943 to current year (includes flow of Dixie Creek prior to October 1946).

GAGE.--Water-stage recorder. Altitude of gage is 3,850 ft (from topographic map of Bureau of Reclamation).

AVERAGE DISCHARGE.--26 years, 972 cfs (704,200 acre-ft per year); 15-year base period (1952-67), 977 cfs.

EXTREMES.--Current year: Maximum discharge, 4,740 cfs Apr. 25 (gage height, 7.47 ft); minimum, 2.9 cfs Jan. 31 (gage height, 1.25 ft).

Period of record: 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.--Records excellent. Flow regulated by Anderson Ranch Reservoir 1.8 miles upstream (see sta 13-1900) beginning Dec. 15, 1945. Flow of Little Camas Creek is stored in Little Camas Reservoir (capacity, 22,300 acre-ft, no spill most years) and diverted out of basin through Little Camas Canal (see sta 13-1890) for irrigation of about 5,000 acres of land in vicinity of Mountain Home.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-16)

1.3	3.2	2.0	68	4.0	900
1.4	5.6	2.2	107	5.0	1,780
1.5	10	2.5	188	6.0	2,840
1.6	17	3.0	367	7.3	4,490
1.8	37	3.5	593		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,370	313	332	286	515	332	37	4,390	2,270	1,370	1,110	1,090
2	1,520	244	548	893	400	188	13	4,430	2,280	1,360	1,070	1,100
3	1,450	164	529	721	568	994	13	4,430	2,300	1,000	1,060	1,000
4	1,450	328	646	478	563	1,660	13	4,430	2,310	810	1,130	721
5	1,460	244	520	529	568	709	13	4,310	2,580	804	1,090	340
6	1,470	487	359	858	573	344	14	4,070	3,620	810	1,090	340
7	1,470	469	290	558	558	375	17	4,070	3,900	810	1,110	214
8	1,430	505	234	483	383	244	942	4,060	3,900	956	1,090	548
9	1,490	371	388	630	220	201	1,590	4,070	3,430	994	1,010	309
10	1,520	198	400	663	538	367	1,510	4,070	2,620	1,070	1,070	207
11	1,520	247	388	442	487	456	1,650	4,070	2,830	1,070	1,110	290
12	1,530	408	359	240	355	460	1,890	4,080	2,550	886	1,110	320
13	1,540	625	456	573	320	447	1,930	4,240	2,590	680	1,110	207
14	1,540	734	469	614	367	543	2,330	4,240	2,690	970	1,110	207
15	1,490	734	230	492	258	817	2,760	4,240	2,420	1,030	1,110	207
16	1,490	573	460	483	182	625	2,950	4,240	2,310	1,020	1,110	223
17	1,130	261	524	474	578	777	3,030	4,250	2,210	1,030	1,110	134
18	408	764	451	363	625	379	3,010	4,250	1,960	1,070	1,110	86
19	465	900	609	188	412	421	3,110	3,640	1,960	1,070	1,110	86
20	340	963	583	534	317	1,340	2,950	2,870	1,940	1,070	1,070	88
21	657	771	305	469	313	1,660	3,260	2,040	1,910	1,070	1,070	86
22	524	837	223	408	265	588	3,480	1,460	1,750	1,070	1,070	88
23	614	663	388	447	176	276	3,490	1,460	1,760	1,070	1,070	234
24	558	261	524	538	383	1,130	3,840	1,450	1,660	1,080	1,080	328
25	430	715	286	456	336	784	4,150	1,440	1,760	1,090	1,080	568
26	421	764	501	201	272	538	4,100	1,430	1,610	1,100	1,080	727
27	305	635	534	534	305	1,120	4,100	1,750	1,440	1,100	1,090	692
28	675	320	630	548	328	501	4,340	2,200	1,400	1,110	1,090	363
29	538	460	447	13	-----	538	4,140	2,220	1,380	1,110	1,090	810
30	332	553	573	4.4	-----	483	4,410	2,240	1,210	1,070	1,090	646
31	784	-----	837	13	-----	492	-----	2,230	-----	1,060	1,080	-----
TOTAL	31,921	15,511	14,023	14,133.4	11,165	19,789	69,082	102,370	68,550	31,810	33,780	12,259
MEAN	1,030	517	452	456	399	638	2,303	3,302	2,285	1,026	1,090	409
MAX	1,540	963	837	893	625	1,660	4,410	4,430	3,900	1,370	1,130	1,100
MIN	305	164	223	4.4	176	188	13	1,430	1,210	680	1,010	86
AC-FT	63,310	30,770	27,810	28,030	22,150	39,250	137,000	203,000	136,000	63,090	67,000	24,320

CAL YR 1968: TOTAL 296,519 MEAN 810 MAX 1,590 MIN 139 AC-FT 588,100
WTR YR 1969: TOTAL 424,393.4 MEAN 1,163 MAX 4,430 MIN 4.4 AC-FT 841,800

BOISE RIVER BASIN

13-1940. Arrowrock Reservoir at Arrowrock Dam, Idaho

LOCATION.--Lat 43°35'40", long 115°55'19", in E½ sec.13, T.3 N., R.4 E., Elmore County, Boise National Forest, at Arrowrock Dam on Boise River, 14 miles east of Boise, and at mile 74.0.

DRAINAGE AREA.--2,210 sq mi, approximately.

PERIOD OF RECORD.--October 1917 to current year. Published as "at Arrowrock" October 1917 to September 1962.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents observed, 287,900 acre-ft June 15 (elevation, 3,216.43 ft); minimum observed, 3,910 acre-ft Sept. 19 (elevation, 3,020.56 ft).

Period of record: Maximum contents observed, 301,200 acre-ft May 29, 1948 (elevation, 3,219.1 ft); no usable contents during period in each of several years when sluice gates were open and natural flow was passing through reservoir.

REMARKS.--Reservoir is formed by gravity-section concrete-arch dam completed in 1915 and raised 5 ft in 1937; storage began in 1915. Capacity, 286,600 acre-ft between elevations 2,974 ft (9.5 ft above sluice gate sill) and 3,216 ft (highest position of movable crest of spillway). Silt deposition at dam has raised the lower storage level and decreased the capacity of the reservoir. Prior to Oct. 1, 1952, contents in publications of the Geological Survey applied from original capacity table and no silt corrections were made. Beginning Oct. 1, 1952, contents applied from revised table, which is the original table reduced by amounts varying from 347 acre-ft at elevation 2,974 to 5,000 acre-ft at elevation 3,085 ft and above. Water is used for irrigation in Boise valley.

COOPERATION.--Gage readings and capacity table furnished by Bureau of Reclamation.

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

3,020.0	3,800	3,130.0	90,500
3,040.0	8,270	3,160.0	146,000
3,060.0	16,800	3,200.0	240,000
3,080.0	30,000	3,217.0	289,700
3,100.0	49,000		

CONTENTS, IN ACRE-FT, AT 0800, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4460	53800	128200	189300	275700	173700	83700	281200	285500	278800	142300	11500
2	4700	55400	130200	191200	275700	166700	86900	280100	285000	276700	137000	10800
3	4840	57100	132600	193800	275700	160100	90300	279700	285000	273900	132000	10200
4	4800	58600	135200	196000	276000	154600	95800	279700	285400	270500	126600	9440
5	4780	60500	137400	198100	276000	150600	101800	279700	286200	266800	121700	8570
6	4780	61900	140000	200300	276000	145200	110000	280000	286600	263300	116700	7660
7	4780	63800	141600	203800	276000	139600	119700	280500	286600	259900	111400	7220
8	4780	65500	143200	206500	276000	133700	127400	281200	286300	256200	106100	6650
9	4740	67600	144800	209200	275700	127800	134800	282000	285700	252100	100500	6420
10	4820	70100	146800	212000	275400	122100	143100	282500	286500	248100	94700	5860
11	4840	72300	148700	214500	275400	116700	150800	282800	286600	244100	89200	5360
12	4880	74700	150600	217100	275400	111900	160100	282900	285900	239900	83900	4980
13	4880	78200	152300	220200	275400	107500	168500	282900	285900	235500	78900	4600
14	5220	81300	154000	223100	275100	103400	178000	283000	287600	230300	73400	4160
15	10100	84700	155900	227000	275400	100400	185600	283300	287900	225700	67800	4010
16	15700	87500	157600	230400	275400	97300	193300	283000	287100	221200	62600	4010
17	20600	89900	159600	233500	275100	94300	201300	282400	286900	216400	57000	4030
18	24400	92200	161300	236100	266500	92200	209200	282200	286800	211800	52900	3970
19	26400	95300	163200	238200	257200	89400	215300	282300	286700	206900	46500	3910
20	28400	98800	165100	240300	248700	87100	220200	281400	286900	202000	40800	3940
21	30600	101900	166600	246400	240600	86700	224100	280300	286800	196500	35600	4020
22	33000	105000	168500	255200	231900	86300	228000	279000	286200	191300	30900	3960
23	35100	107700	170300	262700	222800	84100	234700	278600	285100	186300	25400	3930
24	37100	110600	171800	267300	213500	81900	243500	282900	278500	181500	21400	4030
25	39500	113300	174300	272100	205000	81400	251600	285000	277900	176500	18500	4110
26	41400	116500	176500	274800	196700	80400	257500	286300	281000	171700	16700	4360
27	43100	119200	178700	275400	189000	80400	261600	285400	283200	167000	15500	4480
28	44900	122200	180800	276600	181200	82300	264800	285000	282200	162100	14500	4460
29	47100	123900	182600	276900	-----	80300	268000	284300	281300	157500	13700	4120
30	49200	126000	184700	276900	-----	80800	270800	284700	280400	152800	13000	4560
31	51200	-----	186700	275400	-----	81600	-----	285400	-----	147600	12200	-----
(†)	3,101.80	3,150.00	3,178.80	3,212.30	3,176.40	3,124.37	3,210.75	3,215.60	3,213.95	3,160.78	3,050.65	3,023.80
(‡)	+46,780	+74,800	+60,700	+88,700	-94,200	-99,600	+189,200	+14,600	-5,000	-132,800	-135,400	-7,640
MEAN	20810	87183	157735	233558	254946	109048	182680	282248	284990	218416	66432	5644
MAX	51200	126000	186700	276900	276000	173700	270800	286300	287900	278800	142300	11500
MIN	4460	53800	128200	189300	181200	80300	83700	278600	277900	147600	12200	3910

CAL YR 1968..... † +15,700

WTR YR 1969..... † +140

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

13-1965. Bannock Creek near Idaho City, Idaho

LOCATION.--Lat 43°48'30", long 115°46'25", in NW¼NW¼ sec.5, T.5 N., R.6 E., Boise County, Boise National Forest, on right bank 0.8 mile upstream from West Fork, at mile 2, and 3.2 miles southeast of Idaho City.

DRAINAGE AREA.--5.75 sq mi. Mean altitude, 5,240 ft.

PERIOD OF RECORD.--January 1939 to November 1941, October 1950 to current year. Monthly discharge only October and November 1950 published in WSP 1737.

GAGE.--Water-stage recorder and sharp-crested concrete control with V-notch. Altitude of gage is 4,090 ft (from topographic map). Prior to Sept. 10, 1966, at datum 0.06 ft lower.

AVERAGE DISCHARGE.--21 years (1939-41, 1950-69), 2.09 cfs (4.94 inches per year, 1,510 acre-ft per year); 15-year base period (1952-67), 2.08 cfs.

EXTREMES.--Current year: Maximum discharge, 23 cfs Apr. 23 (gage height, 1.78 ft); minimum, 0.21 cfs Dec. 22 (gage height, 0.34 ft).

Period of record: Maximum discharge, 46 cfs Apr. 22, 1965 (gage height, 2.07 ft); minimum discharge, 0.07 cfs Aug. 23, 1940.

REMARKS.--Records good except those below 1.0 cfs, which are fair. No regulation or diversion.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 29, Dec. 1, 7-8, 13-14, 23-24, Jan. 18, Mar. 10-14)

0.3	0.19	0.5	0.78	0.7	2.2	1.5	15
.4	.40	.6	1.4	1.0	5.6	1.7	21

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	.64	.85	.54	1.7	1.2	10	11	3.2	1.6	.64	.38
2	.51	.63	.84	.55	1.6	1.2	11	11	3.1	1.6	.64	.37
3	.51	.74	.83	.52	1.6	1.2	12	9.9	2.9	1.5	.61	.37
4	.52	.79	.86	.56	1.5	1.2	13	9.5	2.8	1.4	.58	.40
5	.52	.65	.87	.74	1.5	1.2	15	9.9	2.7	1.4	.57	.42
6	.49	.63	.72	.85	1.5	1.2	20	11	2.5	1.4	.57	.41
7	.49	.64	.72	.85	1.4	1.3	20	12	2.5	1.4	.56	.40
8	.49	.71	.77	.76	1.4	1.2	18	14	2.6	1.3	.54	.39
9	.49	1.4	.76	.74	1.4	1.2	17	15	2.4	1.3	.53	.39
10	.49	.94	.77	.67	1.4	1.1	17	16	4.0	1.2	.50	1.5
11	.49	1.0	.80	.66	1.4	1.0	17	15	3.1	1.2	.52	.80
12	.64	1.6	.68	.72	1.4	1.0	17	14	2.6	1.2	.53	.54
13	.60	1.3	.66	1.2	1.3	1.1	18	13	2.4	1.1	.51	.50
14	.68	1.1	.70	1.4	1.3	1.2	18	13	2.2	1.1	.50	.49
15	.68	1.1	.75	1.2	1.2	1.2	17	11	2.2	1.1	.47	.48
16	.64	.98	.86	1.2	1.2	1.4	17	10	2.1	1.0	.46	.48
17	.56	.93	.71	1.0	1.3	1.6	17	9.3	1.9	.98	.47	.48
18	.56	1.0	.74	1.0	1.3	1.8	19	8.4	1.8	.95	.46	.48
19	.56	1.1	.69	1.1	1.3	1.7	17	7.7	1.8	.91	.45	.55
20	.64	1.0	.64	1.3	1.2	1.8	17	7.1	1.7	.88	.43	.86
21	.64	.99	.47	6.0	1.2	2.0	16	6.5	1.7	.85	.42	.61
22	.60	1.2	.30	4.6	1.2	2.2	18	6.0	1.6	.82	.40	.56
23	.60	1.2	.40	3.6	1.2	2.5	20	5.5	1.7	.80	.39	.56
24	.56	1.2	.50	3.3	1.2	2.3	20	5.1	3.0	.78	.38	.56
25	.56	1.1	.69	2.9	1.2	2.5	18	4.7	2.2	.80	.38	.54
26	.56	.97	.62	2.6	1.2	2.9	16	4.4	2.0	.76	.38	.54
27	.52	.93	.60	2.4	1.2	3.6	15	4.2	2.0	.72	.38	.53
28	.52	.85	.61	2.2	1.2	4.2	13	4.0	2.0	.70	.39	.52
29	.53	.86	.59	2.0	-----	5.1	13	3.8	2.0	.68	.40	.53
30	.64	.86	.53	1.9	-----	6.6	12	3.6	1.8	.65	.39	.55
31	.64	-----	.54	1.7	-----	8.8	-----	3.4	-----	.62	.39	-----
TOTAL	17.45	29.04	21.07	50.76	37.5	68.5	488	279.0	70.5	32.70	14.84	16.19
MEAN	.56	.97	.68	1.64	1.34	2.21	16.3	9.00	2.35	1.05	.48	.54
MAX	.68	1.6	.87	6.0	1.7	8.8	20	16	4.0	1.6	.64	1.5
MIN	.49	.63	.30	.52	1.2	1.0	10	3.4	1.6	.62	.38	.37
CFSM	.10	.17	.12	.28	.23	.38	2.83	1.57	.41	.18	.08	.09
IN.	.11	.19	.14	.33	.24	.44	3.16	1.80	.46	.21	.10	.10
AC-FT	35	58	42	101	74	136	968	553	140	65	29	32

CAL YR 1968: TOTAL 412.24 MEAN 1.13 MAX 4.5 MIN .23 CFSM .20 IN 2.67 AC-FT 818
WTR YR 1969: TOTAL 1,125.55 MEAN 3.08 MAX 20 MIN .30 CFSM .54 IN 7.28 AC-FT 2,230

PEAK DISCHARGE (BASE, 4.5 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-21	1330	1.26	9.0	5-9	2230	1.48	16
4-23	1800	1.78	23	6-10	1600	1.44	14

BOISE RIVER BASIN

13-2000. Mores Creek above Robie Creek, near Arrowrock Dam, Idaho

LOCATION.--Lat 43°38'53", long 115°59'20", in SE¼ sec.28, T.4 N., R.4 E., Boise County, on left bank at State roadside park, 1.7 miles upstream from Robie Creek, 5 miles northwest of Arrowrock Dam, and at mile 5.8.

DRAINAGE AREA.--399 sq mi.

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1958, published as Moore Creek above Robie Creek, near Arrowrock, and October 1958 to September 1962, published as "near Arrowrock."

GAGE.--Water-stage recorder. Altitude of gage is 3,120 ft (from topographic map).

AVERAGE DISCHARGE.--19 years, 286 cfs (9.73 inches per year, 207,200 acre-ft per year); 15-year base period (1952-67), 277 cfs.

EXTREMES.--Current year: Maximum discharge, 2,800 cfs Apr. 6 (gage height, 7.15 ft); minimum, 22 cfs Aug. 27, 28 (gage height, 2.06 ft).

Period of record: Maximum discharge, 5,440 cfs Dec. 23, 1955 (gage height, 9.55 ft); minimum, 8.9 cfs Aug. 9, 1968 (gage height, 2.00 ft).

REMARKS.--Records good except those for December and January, which are fair. Diversions above station and from Robie Creek for irrigation of about 900 acres. Records of water temperatures for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Jan. 19; stage-discharge relation affected by ice
Dec. 13-17, 20-25, Dec. 29 to Jan. 3, Jan. 8-10)

2.0	21	4.0	498
2.2	40	5.0	1,020
2.5	79	6.0	1,790
3.0	173	7.0	2,660
3.5	310		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	75	104	105	234	171	1,780	922	515	173	46	24
2	51	73	109	105	234	173	1,970	852	485	158	43	24
3	50	79	105	105	228	195	2,120	790	469	149	43	23
4	50	75	107	107	202	187	2,010	773	456	143	43	24
5	52	84	114	116	210	213	2,210	818	456	139	40	26
6	53	75	107	139	213	213	2,600	892	452	135	42	27
7	53	76	93	166	200	205	2,440	977	432	147	40	28
8	53	79	109	160	180	210	1,970	1,080	424	135	38	27
9	53	141	97	145	192	200	1,920	1,140	477	125	38	26
10	53	139	105	140	185	180	2,020	1,190	440	117	35	34
11	55	122	112	147	180	178	1,970	1,200	428	109	35	58
12	66	155	107	153	187	190	1,970	1,170	368	97	36	42
13	71	162	72	205	190	197	2,100	1,120	330	95	37	38
14	75	129	90	313	158	210	2,030	1,180	301	92	34	35
15	78	122	110	298	187	226	1,870	1,130	279	87	31	34
16	82	116	110	228	183	259	1,820	1,010	264	84	30	34
17	78	110	102	223	169	285	1,800	934	247	79	28	34
18	73	110	107	187	162	346	1,990	910	231	75	28	34
19	73	127	100	223	164	354	1,830	898	218	72	29	39
20	75	123	80	279	169	360	1,650	852	226	69	28	53
21	82	123	50	886	185	397	1,540	773	207	62	27	58
22	78	137	70	1,060	180	460	1,680	720	190	60	27	52
23	75	153	110	641	180	563	1,940	694	195	57	25	47
24	75	147	130	477	175	554	2,010	699	294	57	25	47
25	75	143	145	405	173	567	1,650	710	291	58	24	46
26	75	123	131	393	164	641	1,350	699	247	60	24	45
27	75	125	120	330	153	790	1,160	679	226	55	23	43
28	73	116	110	285	162	834	1,080	631	213	53	23	42
29	73	100	100	239	-----	995	1,060	590	200	51	24	42
30	73	125	100	253	-----	1,230	977	567	190	51	24	42
31	73	-----	100	250	-----	1,610	-----	554	-----	49	25	-----
TOTAL	2,073	3,464	3,206	8,763	5,199	13,193	54,517	27,154	9,751	2,893	995	1,128
MEAN	66.9	115	103	283	186	426	1,817	876	325	93.3	32.1	37.6
MAX	82	162	145	1,060	234	1,610	2,600	1,200	515	173	46	58
MIN	50	73	50	105	153	171	977	554	190	49	23	23
CFSM	.17	.29	.26	.71	.47	1.07	4.55	2.20	.81	.23	.08	.09
IN.	.19	.32	.30	.82	.48	1.23	5.08	2.53	.91	.27	.09	.11
AC-FT	4,110	6,870	6,360	17,380	10,310	26,170	108,100	53,860	19,340	5,740	1,970	2,240
CAL YR 1968: TOTAL	53,893			MEAN 147		MAX 934	MIN 10	CFSM .37	IN 5.02	AC-FT 106,900		
WTR YR 1969: TOTAL	132,336			MEAN 363		MAX 2,600	MIN 23	CFSM .91	IN 12.33	AC-FT 262,500		

PEAK DISCHARGE (BASE, 800 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-22	0300	5.73	1,570	5-11	0600	5.30	1,230
4- 6	2100	7.15	2,800				

13-2005. Robie Creek near Arrowrock Dam, Idaho

LOCATION.--Lat 43°37'49", long 115°59'55", in NE¼ sec.5, T.3 N., R.4 E., Boise County, on left bank at mile 0.5 and 5 miles northwest of Arrowrock Dam.

DRAINAGE AREA.--15.8 sq mi. Mean altitude, 4,960 ft.

PERIOD OF RECORD.--October 1950 to current year. Published as "near Arrowrock" prior to October 1962.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,080 ft (from topographic map).

AVERAGE DISCHARGE.--19 years, 7.77 cfs (6.68 inches per year, 5,630 acre-ft per year); 15-year base period (1952-67), 7.25 cfs.

EXTREMES.--Current year: Maximum discharge, 73 cfs Apr. 2 (gage height, 2.48 ft); minimum, 0.11 cfs Aug. 23, 24 (gage height, 0.86 ft).

Period of record: Maximum discharge, 274 cfs Jan. 29, 1965 (gage height, 3.07 ft); no flow on some days during summers of 1961, 1963, 1966-68.

REMARKS.--Records good except those below 2 cfs, which are fair. Small diversions above station for irrigation.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 6-23, Aug. 11-14; stage-discharge relation affected by ice Dec. 14, 18-24)

0.9	0.09	1.6	10
1.0	.26	1.8	18
1.1	.68	2.0	29
1.2	1.5	2.2	46
1.3	2.9	2.4	73
1.4	4.8		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.5	2.9	3.9	10	7.2	58	22	4.6	3.3	.55	.24
2	1.2	1.7	2.8	3.9	9.0	7.5	61	20	4.4	2.6	.51	.23
3	1.2	2.2	2.8	4.2	9.0	8.4	64	19	4.2	2.5	.47	.24
4	1.2	2.8	2.8	4.4	8.7	9.0	58	19	4.0	2.4	.39	.30
5	1.2	2.2	3.1	5.3	8.7	10	61	19	4.0	2.4	.39	.39
6	1.2	2.1	2.8	6.2	8.7	11	66	19	3.9	2.2	.47	.39
7	1.3	1.8	2.6	7.2	7.8	11	60	19	3.7	1.8	.47	.34
8	1.3	2.9	2.8	6.7	7.5	9.9	47	20	4.0	1.5	.43	.26
9	1.2	6.9	2.6	6.7	7.5	9.3	43	19	4.4	1.2	.39	.26
10	1.3	4.0	2.8	6.5	7.5	8.7	43	19	5.5	1.1	.35	.34
11	1.4	3.7	3.3	6.5	7.2	8.4	44	18	5.5	.89	.43	.43
12	1.8	5.0	2.9	9.3	8.7	8.7	45	16	4.0	.83	.47	.43
13	1.7	4.0	2.0	12	8.7	9.3	48	15	3.3	.68	.51	.43
14	2.4	3.3	3.0	14	8.1	9.9	44	15	3.1	.68	.47	.43
15	2.8	3.3	3.3	13	8.4	12	42	14	3.1	.64	.37	.43
16	2.9	2.9	4.0	11	8.1	14	40	12	3.5	.60	.42	.43
17	2.4	2.9	3.3	10	7.8	16	39	11	3.1	.51	.41	.43
18	2.2	3.3	2.4	9.3	7.8	18	43	10	2.9	.51	.34	.47
19	2.2	3.3	2.0	14	8.1	18	40	9.9	2.6	.47	.34	.60
20	2.9	3.3	1.4	24	8.1	18	37	9.9	2.8	.38	.34	1.0
21	2.9	3.3	1.4	42	8.4	19	36	9.3	2.4	.43	.30	1.2
22	2.5	4.0	2.0	47	8.7	21	38	8.7	2.2	.64	.24	1.0
23	2.4	3.9	3.0	29	8.7	24	44	7.8	3.1	.76	.23	1.0
24	2.4	4.2	5.0	22	8.7	24	42	7.2	6.7	.68	.21	1.1
25	2.2	4.0	6.7	21	8.7	24	36	6.7	4.8	.75	.21	1.0
26	2.0	3.9	5.5	19	8.4	25	30	6.5	3.7	.68	.24	1.0
27	2.0	3.7	4.8	16	7.5	30	28	6.5	3.9	.64	.24	.94
28	2.1	3.3	4.6	14	6.9	33	25	6.0	3.9	.60	.26	.85
29	2.1	3.1	3.9	11	-----	36	25	5.3	4.0	.55	.30	.85
30	2.1	3.1	4.0	11	-----	44	23	5.0	3.9	.51	.30	.85
31	1.8	-----	3.9	11	-----	52	-----	4.8	-----	.51	.30	-----
TOTAL	59.5	99.6	100.4	421.1	231.4	556.3	1,310	399.6	115.2	33.94	11.35	17.86
MEAN	1.92	3.32	3.24	13.6	8.26	17.9	43.7	12.9	3.84	1.09	.37	.60
MAX	2.9	6.9	6.7	47	10	52	66	22	6.7	3.3	.55	1.2
MIN	1.2	1.5	1.4	3.9	6.9	7.2	23	4.8	2.2	.38	.21	.23
CFSM	.12	.21	.20	.86	.52	1.14	2.76	.82	.24	.07	.02	.04
IN.	.14	.23	.24	.99	.54	1.31	3.08	.94	.27	.08	.03	.04
AC-FT	118	198	199	835	459	1,100	2,600	793	229	67	23	35

CAL YR 1968: TOTAL 1,310.47 MEAN 3.58 MAX 6.9 MIN 0 CFSM .23 IN 3.08 AC-FT 2,600
WTR YR 1969: TOTAL 3,356.25 MEAN 9.20 MAX 66 MIN .21 CFSM .58 IN 7.90 AC-FT 6,660

PEAK DISCHARGE (BASE, 35 CFS).--Jan. 21 (2100) 72 cfs (2.39 ft); Apr. 2 (2200) 73 cfs (2.48 ft).

BOISE RIVER BASIN

13-2015. Lucky Peak Reservoir near Boise, Idaho

LOCATION.--Lat 43°31'31", long 116°03'15" (revised), in SW¼NW¼ sec.12, T.2 N., R.3 E., Ada County, 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, 9 miles southeast of Boise, and at mile 63.8.

DRAINAGE AREA.--2,680 sq mi, approximately.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to May 13, 1955, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 300,900 acre-ft June 25 (elevation, 3,057.82 ft); minimum, 34,200 acre-ft Oct. 7 (elevation, 2,911.48 ft).
Period of record: 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, 28,630 acre-ft Dec. 21, 1961 (elevation, 2,904.83 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 ft (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.

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

2,910.0	32,900	3,000.0	162,800
2,920.0	42,200	3,020.0	205,600
2,940.0	64,600	3,040.0	253,600
2,960.0	92,400	3,060.0	307,000
2,980.0	125,100		

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37,800	41,400	46,800	50,000	88,400	72,200	59,000	72,200	264,800	293,600	293,500	257,600
2	36,100	41,500	46,900	50,100	91,300	72,200	63,400	73,600	268,800	293,700	293,700	253,500
3	35,200	41,600	47,000	50,200	94,300	71,900	67,500	74,100	272,800	293,700	293,700	249,600
4	34,700	41,800	47,100	50,400	97,300	71,400	70,200	74,300	277,200	293,600	293,300	245,600
5	34,500	41,900	47,200	50,500	100,300	70,900	72,500	75,000	281,600	293,400	293,100	241,300
6	34,300	42,000	47,400	50,700	102,500	70,200	75,300	78,900	286,100	293,200	293,000	236,600
7	34,400	42,100	47,400	51,000	102,500	69,200	78,300	85,700	290,100	293,100	293,100	231,800
8	34,600	42,300	47,600	51,300	100,400	67,900	80,300	94,200	293,800	293,100	293,100	226,900
9	34,800	42,600	47,600	51,500	97,700	66,400	82,300	104,100	295,600	293,100	293,600	222,600
10	35,400	42,900	47,700	51,800	94,000	64,500	82,800	115,500	296,100	293,100	293,500	217,800
11	36,200	43,200	47,900	52,000	89,100	62,400	82,800	127,100	296,800	293,100	293,300	213,200
12	37,300	43,500	48,000	52,300	83,700	60,100	81,500	139,000	295,900	293,300	293,000	208,700
13	38,700	43,800	48,000	52,800	77,700	57,600	79,900	150,800	294,500	293,600	293,000	204,200
14	38,900	44,000	48,100	53,400	70,500	54,800	79,000	162,700	294,300	293,700	293,200	199,400
15	39,100	44,200	48,100	54,000	63,600	51,800	78,700	175,300	294,900	293,600	293,400	194,500
16	39,300	44,300	48,200	54,400	56,600	48,700	78,500	186,500	295,500	293,500	293,700	189,700
17	39,400	44,400	48,400	54,900	54,800	45,600	78,000	196,200	296,000	293,200	292,900	185,000
18	39,600	44,500	48,500	55,200	57,500	43,500	78,600	205,700	295,900	293,100	293,100	180,200
19	39,800	44,700	48,500	55,800	59,900	42,100	79,400	215,200	295,400	293,100	293,900	175,400
20	40,000	44,900	48,600	56,500	62,200	40,500	80,000	222,300	294,900	293,300	294,100	170,700
21	40,200	45,000	48,500	58,500	64,200	39,400	80,300	226,900	294,500	293,700	293,600	166,300
22	40,300	45,200	48,500	61,000	66,100	38,700	80,800	228,900	294,300	293,700	293,300	161,900
23	40,400	45,500	48,600	62,500	67,700	38,200	81,500	227,600	298,600	293,500	292,300	157,400
24	40,500	45,700	48,800	63,600	69,000	37,500	82,400	227,600	300,700	293,400	289,900	153,200
25	40,600	45,900	49,000	65,200	70,200	37,600	82,500	230,200	298,900	293,400	286,500	149,300
26	40,800	46,100	49,300	68,400	71,100	38,400	82,100	235,100	295,600	293,600	282,500	145,900
27	40,800	46,300	49,400	72,000	71,700	39,200	81,400	239,700	294,500	293,600	278,300	142,600
28	41,000	46,400	49,600	75,800	72,100	41,600	80,600	245,500	294,300	293,400	274,000	139,400
29	41,100	46,500	49,600	79,500	-----	45,300	79,700	250,200	294,000	293,100	269,800	135,900
30	41,100	46,700	49,800	82,700	-----	49,400	72,900	254,700	293,600	293,100	265,700	133,000
31	41,300	-----	49,900	85,700	-----	54,300	-----	259,800	-----	293,300	261,700	-----
(†)	2,919.09	2,924.46	2,927.42	2,955.48	2,945.78	2,931.38	2,946.40	3,042.45	3,055.17	3,055.05	3,043.18	2,984.45
(‡)	+1,810	+5,400	+3,200	+35,800	-13,600	17,800	+18,600	+186,900	+33,800	-300	-31,600	-128,700
MAX	41,300	46,700	49,900	85,700	102,500	72,200	82,800	259,800	300,700	293,700	294,100	257,600
MIN	34,300	41,400	46,800	50,000	54,800	37,500	59,000	72,200	264,800	293,100	261,700	133,000

CAL YR 1968..... ‡ -7,370

WTR YR 1969..... ‡ +93,500

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

13-2020. Boise River near Boise, Idaho

LOCATION.--Lat 43°31'40", long 116°03'31", in NE¼ sec.11, T.2 N., R.3 E., Ada County, at gate-control house at outlet works of Lucky Peak Reservoir, 1.8 miles upstream from diversion dam for New York Canal, 7.5 miles downstream from mouth of Mores Creek, 9 miles southeast of Boise, and at mile 63.6.

DRAINAGE AREA.--2,680 sq mi, approximately. Mean altitude, 5,910 ft.

PERIOD OF RECORD.--January 1895 to September 1916 (no winter records 1904-5, 1907), November 1950 to September 1954 (discharge measurements only), October 1954 to current year. Published as "near Highland" 1905-15 and as "below Moore Creek, near Arrowrock" 1916.

GAGE.--Remote gate-opening recorder and nonrecording gage on each of six slide gates, remote recorder and non-recording gage on hollow-jet valve, and remote 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, nonrecording gages at sites about 1 mile downstream at different datums. Mar. 18, 1905, to Mar. 20, 1915, nonrecording gages, and Mar. 21, 1915, to Sept. 30, 1916, water-stage recorders at sites 5 to 7 miles upstream at different datums.

AVERAGE DISCHARGE.--32 years (1895-96, 1897-1903, 1905-6, 1907-16, 1954-69), 2,913 cfs (2,110,000 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 8,660 cfs May 3, 4; no flow Oct. 15-21.

Period of record: Maximum discharge observed, 35,500 cfs June 14, 1896; no flow on several days in 1954, 1955, 1957-59, 1961, 1969, when gates were closed.

REMARKS.--Records excellent except those for Oct. 22 to Feb. 6, which are good. Daily discharge computed from gate ratings. Flow regulated by Lucky Peak Reservoir (see sta 13-2015), Arrowrock Reservoir (see sta 13-1940), and Anderson Ranch Reservoir (see sta 13-1900). Small diversions from tributaries upstream for irrigation. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

COOPERATION.--Records of gate operation, stage in Lucky Peak Reservoir, and gate rating curves furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1347: 1895-1901, 1904.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,700	27	68	69	72	5,110	3,050	8,650	5,290	4,220	4,450	3,980
2	2,730	23	68	69	73	5,090	3,050	8,640	5,280	4,410	4,430	3,970
3	2,610	23	68	69	73	5,100	3,050	8,660	5,290	4,530	4,430	3,850
4	2,310	23	68	69	73	5,110	3,050	8,660	5,290	4,560	4,430	3,790
5	2,160	23	68	69	74	5,080	3,050	8,640	5,970	4,560	4,430	3,690
6	2,150	23	68	69	532	5,080	3,050	7,300	7,060	4,560	4,450	3,580
7	2,010	23	68	69	1,700	5,080	3,050	6,620	7,630	4,560	4,460	3,530
8	1,930	23	68	70	2,710	5,110	3,030	6,610	7,630	4,670	4,460	3,500
9	1,860	23	68	70	3,030	5,080	3,050	6,620	7,630	4,730	4,460	3,480
10	1,760	23	68	70	3,370	5,090	4,040	6,610	7,630	4,730	4,460	3,480
11	1,660	23	68	70	4,070	5,100	4,310	6,600	7,630	4,730	4,440	3,410
12	1,630	23	68	70	4,410	5,080	5,080	6,620	7,630	4,730	4,400	3,340
13	1,630	52	68	70	4,910	5,080	5,580	6,610	6,800	4,730	4,390	3,320
14	1,020	67	68	68	5,070	5,080	5,590	6,630	6,100	4,750	4,390	3,320
15	0	67	68	67	5,090	5,110	5,590	6,620	6,100	4,810	4,340	3,250
16	0	67	68	67	5,100	5,080	5,600	6,600	5,590	4,780	4,280	3,200
17	0	67	68	68	5,070	5,080	5,730	6,610	5,080	4,760	4,270	3,170
18	0	67	68	68	5,080	4,450	6,670	6,610	5,080	4,770	4,270	3,160
19	0	67	68	68	5,080	4,060	7,100	6,620	5,080	4,780	4,270	3,150
20	0	67	68	68	5,080	4,070	7,100	6,620	5,080	4,780	4,250	3,080
21	0	67	68	69	5,060	4,080	7,590	6,610	5,040	4,730	4,280	3,050
22	13	67	68	69	5,060	4,100	7,970	6,620	5,010	4,700	4,300	2,990
23	33	68	68	68	5,060	4,070	8,180	6,590	4,920	4,700	4,300	2,970
24	33	68	68	67	5,080	4,060	8,240	6,630	4,750	4,660	4,290	2,940
25	33	68	68	67	5,070	3,540	8,350	6,620	4,620	4,650	4,290	2,930
26	33	68	68	68	5,080	3,050	8,450	6,610	4,580	4,580	4,270	2,930
27	33	68	68	69	5,080	3,060	8,460	6,610	4,480	4,550	4,250	2,880
28	33	68	69	70	5,110	3,050	8,450	5,730	4,200	4,550	4,220	2,810
29	33	68	69	70	-----	3,030	8,580	5,290	4,120	4,550	4,150	2,790
30	33	68	69	71	-----	3,040	8,650	5,290	4,120	4,550	4,050	2,800
31	33	-----	69	71	-----	3,060	-----	5,290	-----	4,510	4,020	-----
TOTAL	28,470	1,479	2,112	2,136	101,287	137,260	172,740	211,040	170,710	143,880	134,180	98,340
MEAN	918	49.3	68.1	68.9	3,617	4,428	5,758	6,808	5,690	4,641	4,328	3,278
MAX	2,730	68	69	71	5,110	5,110	8,650	8,660	7,630	4,810	4,460	3,980
MIN	0	23	68	67	72	3,030	3,030	5,290	4,120	4,220	4,020	2,790
AC-FT	56,470	2,930	4,190	4,240	200,900	272,300	342,600	418,600	338,600	285,400	266,100	195,100

CAL YR 1968 : TOTAL 743,973.00 MEAN 2,033 MAX 5,130 MIN 0 AC-FT 1,476,000
WTR YR 1969 : TOTAL 1,203,634.00 MEAN 3,298 MAX 8,660 MIN 0 AC-FT 2,387,000

13-2035. Lake Lowell near Caldwell, Idaho

LOCATION.--Lat 43°34'42", long 116°44'28", in NW¼SE¼ (revised) sec.19, T.3 N., R.3 W., Canyon County, on outlet structure at lower embankment, 5.5 miles southwest of Caldwell; and lat 43°33'30", long 116°38'55", in NW¼NW¼ sec.36, T.3 N., R.3 W., Canyon County, on outlet structure at upper embankment 5 miles west of Nampa.

PERIOD OF RECORD.--October 1917 to current year. Prior to October 1945, published as Deer Flat Reservoir near Caldwell.

GAGE.--Nonrecording gage. Datum of gages is 2,500.5 ft above mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum contents observed, 173,500 acre-ft July 3 (gage height, 29.63 ft); minimum observed, 93,800 acre-ft Sept. 5, 6 (gage height, 20.11 ft).
Period of record: Maximum contents observed, 178,900 acre-ft Apr. 27, 38, 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 ft (sill of outlet gates) and 30.0 ft (maximum operating level). Dead storage, about 13,000 acre-ft. Below gage height 12.0 ft, reservoir divides into two pools. In addition, to water received from local drainage, reservoir receives water from Boise River through New York Canal of Boise project. Water is used for irrigation of lower project lands. Figures given herein represent usable contents.

COOPERATION.--Gage readings and capacity table furnished by Water District 12A.

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

20.0 93,000
30.0 177,200

CONTENTS, IN ACRE-FT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130,600	144,100	144,300	143,900	145,400	145,500	142,700	170,300	164,200	171,300	131,100	94,700
2	131,000	144,000	144,300	143,900	145,400	145,300	143,500	170,400	164,600	172,900	129,600	94,500
3	131,600	144,000	144,100	143,900	145,400	145,100	143,400	170,500	164,900	173,500	127,800	94,000
4	132,100	144,300	144,000	143,900	145,400	144,800	145,000	170,500	165,000	173,200	125,900	94,000
5	133,000	144,200	144,000	143,900	145,100	144,600	146,100	170,400	163,600	172,600	124,000	93,800
6	134,300	144,100	144,000	143,900	145,200	144,400	147,100	170,300	163,000	170,200	122,600	93,800
7	135,700	144,300	143,900	143,900	145,300	144,300	149,700	168,900	162,600	169,500	121,300	94,000
8	137,000	144,500	143,900	143,900	145,300	144,300	151,300	168,300	162,500	168,800	119,400	94,200
9	138,200	144,500	143,800	143,900	145,300	144,200	152,800	167,000	162,600	166,800	119,100	95,000
10	139,200	144,500	143,700	143,900	145,300	144,200	154,100	165,200	162,400	163,700	118,200	95,400
11	140,100	144,500	143,600	143,900	145,300	144,100	155,700	164,300	162,500	161,600	116,900	95,900
12	140,800	144,500	143,500	143,900	145,300	144,100	157,700	163,400	163,500	160,700	115,400	96,400
13	141,700	144,500	143,400	144,300	145,300	144,000	159,000	161,600	163,900	159,500	113,400	97,800
14	142,600	144,600	143,300	144,300	145,500	143,900	160,500	161,700	165,000	157,600	111,900	98,600
15	143,300	144,700	143,300	144,200	145,500	143,900	161,300	160,800	165,600	156,000	110,400	99,300
16	144,500	144,700	143,200	144,200	145,500	143,800	162,700	160,400	165,200	152,800	108,500	100,300
17	144,700	144,700	143,200	144,100	145,500	143,700	164,000	160,400	165,200	151,300	107,400	101,400
18	144,600	144,600	143,200	144,100	145,500	143,600	164,900	161,000	164,100	150,300	106,400	102,700
19	144,600	144,600	143,200	144,100	145,400	143,500	166,300	161,400	162,800	149,600	105,800	103,600
20	144,500	144,600	143,200	144,900	145,300	143,400	167,000	161,900	161,800	148,600	104,600	105,200
21	144,400	144,500	143,300	145,200	145,300	143,300	167,900	162,300	160,600	146,600	103,300	105,900
22	144,300	144,500	143,300	145,100	145,300	143,300	168,500	163,100	160,000	145,100	102,100	107,500
23	144,400	144,500	143,400	145,200	145,300	143,300	168,300	163,700	159,300	143,600	102,400	108,900
24	144,400	144,500	143,600	145,300	145,300	143,200	168,800	163,700	160,200	142,600	100,700	109,700
25	144,500	144,500	143,800	145,300	145,300	143,100	168,900	164,000	160,800	141,000	99,800	111,100
26	144,500	144,500	143,900	145,300	145,500	143,100	169,500	164,400	162,400	140,100	99,000	112,800
27	144,500	144,500	143,900	145,300	145,700	143,000	170,100	164,200	164,400	139,200	97,800	114,600
28	144,400	144,500	143,900	145,300	145,800	142,900	170,200	163,800	166,000	138,200	96,400	115,800
29	144,400	144,500	143,900	145,300	-----	142,900	170,200	163,800	167,700	135,900	94,600	117,100
30	144,300	144,300	143,900	145,300	-----	142,800	170,300	164,100	169,700	134,400	94,300	118,100
31	144,300	-----	143,900	145,300	-----	142,700	-----	164,100	-----	133,000	95,000	-----
(†)	2,526.44	2,526.44	2,526.40	2,526.56	2,526.61	2,526.26	2,529.29	2,528.64	2,529.23	2,525.12	2,520.27	2,523.30
(‡)	+14,800	0	-400	+1,400	+500	-3,100	+27,600	-6,200	+5,600	-36,700	-38,000	+23,100
MAX	144,700	144,700	144,300	145,300	145,800	145,500	170,300	170,300	169,700	173,500	131,100	118,100
MIN	130,600	144,000	143,200	143,900	145,100	142,700	142,700	160,400	159,300	133,000	94,300	93,800

CAL YR 1968..... † +12,700

WTR YR 1969..... ‡ -11,400

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

13-2045. Diversions from Boise River between near Boise and at Boise gaging stations, Idaho

Between near Boise and at Boise gaging stations (prior to 1955 water year, published as between Dowling Ranch and Boise gaging stations), six principal canals and several small farm laterals divert water from Boise River for irrigation.

Records of total diversion during April to September for each canal for years 1919-46, combined daily diversion covering period April to September for years 1947-67, combined daily diversions covering periods October and April to September for water years 1968-69 and daily flow of New York Canal February 1939 to October 1948 are published in reports of Geological Survey. Records of daily diversion for each canal from 1916-69 are on file in office of Idaho Department of Water Administration. Prior to October 1967, there was no record of October to March diversions except for New York Canal. No diversions through New York Canal for period November to March as reported by watermaster for Water District 12A for current year. There are also diversions by pumping from the Boise River between "near Boise" and "at Notus." The watermaster reported the portion of these diversions between "near Boise" and "at Boise" to be approximately as follows (in acre-ft): April, 69; May, 310; June, 310; July, 294; August, 282; and September, 186.

Records show summation of discharge for the recorded diversions. Staff gages on canals are read daily or several times weekly and discharge measurements are made frequently. Records furnished by watermaster for Boise River.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,110						333	3,050	3,430	3,130	3,240	2,990
2	2,130						500	3,240	3,420	3,140	3,220	2,940
3	2,110						800	3,280	3,420	3,360	3,240	2,920
4	2,110						950	3,300	3,420	3,320	3,260	2,820
5	1,740						1,100	3,250	3,430	3,320	3,250	2,840
6	1,740						1,200	3,330	3,390	3,310	3,250	2,730
7	1,740						1,200	3,400	3,360	3,280	3,240	2,730
8	1,520						1,260	3,440	3,350	3,320	3,240	2,700
9	1,520						1,300	3,320	3,370	3,420	3,240	2,720
10	1,510						1,300	3,380	3,330	3,420	3,240	2,720
11	1,320						1,410	3,350	3,360	3,410	3,250	2,700
12	1,310						1,520	3,340	3,280	3,410	3,170	2,580
13	1,310						1,510	3,370	3,310	3,400	3,180	2,580
14	1,310						1,580	3,370	3,320	3,430	3,180	2,580
15	174						1,600	3,360	3,300	3,430	3,160	2,580
16	-						1,570	3,460	3,290	3,410	3,140	2,470
17	-						1,630	3,470	3,340	3,430	3,170	2,480
18	-						1,960	3,480	3,410	3,450	3,180	2,470
19	-						1,930	3,490	3,410	3,440	3,150	2,480
20	-						1,970	3,460	3,420	3,450	3,160	2,460
21	-						2,020	3,450	3,420	3,460	3,150	2,390
22	-						2,300	3,460	3,420	3,350	3,140	2,380
23	-						2,560	3,450	3,420	3,340	3,150	2,330
24	-						2,680	3,460	3,370	3,340	3,150	2,330
25	-						2,550	3,460	3,330	3,340	3,150	2,330
26	-						2,670	3,470	3,260	3,390	3,160	2,350
27	-						2,770	3,470	3,320	3,270	3,160	2,340
28	-						2,800	3,470	3,270	3,290	3,160	2,260
29	-						2,850	3,470	3,120	3,290	3,110	2,210
30	-						3,020	3,420	3,120	3,260	3,050	2,210
31	-	-----			-----		-----	3,430	-----	3,260	3,010	-----
TOTAL	-						52,843	105,150	100,410	103,870	98,550	76,620
MEAN	-						1,761	3,392	3,347	3,351	3,179	2,554
MAX	-						3,020	3,490	3,430	3,460	3,260	2,990
MIN	-						333	3,050	3,120	3,130	3,010	2,210
AC-FT	-						104,800	208,600	199,200	206,000	195,500	152,000

BOISE RIVER BASIN

13-2055. Boise River at Boise, Idaho

LOCATION.--Lat 43°36'33", long 116°12'27", in NE¼SW¼ sec.10, T.3 N., R.2 E., Ada County, on right bank at Capitol Boulevard Bridge at Boise and at mile 52.8.

DRAINAGE AREA.--2,760 sq mi, approximately.

PERIOD OF RECORD.--March 1938 to September 1939 (gage heights only), February 1940 to current year.

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.

AVERAGE DISCHARGE.--15 years (1954-69), 1,127 cfs (816,500 acre-ft per year), since completion of Lucky Peak Dam.

EXTREMES.--Current year: Maximum discharge, 5,330 cfs Apr. 22 (gage height, 6.66 ft); minimum, 22 cfs Oct. 22, 23 (gage height, 2.59 ft).

Period of record: 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, 3.5 cfs Jan. 19-23, 1961.

REMARKS.--Records good. Flow regulated by Anderson Ranch Reservoir (see sta 13-1900), Arrowrock Reservoir (see sta 13-1940), and Lucky Peak Reservoir (see sta 13-2015). New York, Ridenbaugh, and four small canals (see preceding page) divert between station near Boise and this station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 20-21, 30-31, Jan. 29-30)

2.6	23	4.0	816
2.8	49	4.5	1,520
3.0	90	5.0	2,400
3.2	159	6.0	4,130
3.5	334	6.8	5,470

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	476	42	74	74	99	4,980	2,700	5,040	1,780	1,060	1,150	991
2	522	40	74	78	93	4,940	2,500	5,010	1,730	1,110	1,140	978
3	432	40	76	78	93	4,940	2,230	4,990	1,700	1,140	1,140	964
4	374	40	74	78	93	4,960	2,070	5,010	1,710	1,180	1,140	926
5	358	37	72	80	87	4,960	1,920	5,010	2,210	1,180	1,140	914
6	334	37	70	85	76	4,940	1,940	4,000	3,230	1,200	1,140	840
7	350	36	68	87	1,490	4,940	1,890	3,140	3,920	1,200	1,150	828
8	342	43	68	85	2,590	4,980	1,820	3,100	3,940	1,220	1,150	782
9	307	49	66	78	3,050	4,930	1,820	3,100	3,970	1,270	1,180	760
10	334	44	65	80	3,270	4,930	2,510	3,070	3,990	1,270	1,180	760
11	300	43	63	85	4,000	4,940	2,940	3,050	3,990	1,270	1,180	782
12	280	47	65	90	4,290	4,940	3,390	3,070	4,020	1,270	1,170	760
13	280	47	67	93	4,760	4,930	3,940	3,010	3,570	1,270	1,170	738
14	254	74	67	90	4,910	4,930	3,940	3,010	2,870	1,260	1,150	738
15	132	76	69	87	4,930	4,930	3,920	3,010	2,870	1,330	1,140	738
16	54	76	67	85	4,890	4,910	3,830	3,000	2,300	1,300	1,080	726
17	39	74	65	85	4,890	4,890	3,780	3,010	1,580	1,260	1,060	704
18	31	76	71	78	4,910	4,450	4,320	3,000	1,570	1,260	1,060	683
19	29	80	69	99	4,910	4,030	4,840	3,030	1,550	1,300	1,040	694
20	25	85	67	136	4,930	4,030	4,840	3,050	1,550	1,280	1,040	704
21	25	85	65	164	4,890	4,050	5,100	3,050	1,520	1,300	1,060	683
22	23	85	61	184	4,890	4,050	5,280	3,070	1,500	1,280	1,080	662
23	32	85	74	151	4,910	4,020	5,270	3,070	1,460	1,300	1,080	642
24	40	87	93	120	4,930	4,020	5,230	3,070	1,380	1,260	1,080	610
25	42	85	85	114	4,930	3,670	5,220	3,070	1,300	1,210	1,080	600
26	43	83	80	111	4,930	3,120	5,160	3,050	1,280	1,220	1,080	600
27	42	80	76	105	4,940	3,100	5,130	3,070	1,200	1,220	1,060	610
28	42	78	83	105	4,960	3,100	5,100	2,360	1,060	1,240	1,040	610
29	42	78	76	98	-----	3,100	5,080	1,780	1,000	1,240	1,040	600
30	43	76	76	105	-----	3,120	5,100	1,780	1,000	1,240	1,000	600
31	43	-----	76	99	-----	3,030	-----	1,780	-----	1,210	978	-----
TOTAL	5,670	1,908	2,222	3,087	97,741	134,860	112,810	100,860	66,750	38,350	34,178	22,227
MEAN	183	63.6	71.7	99.6	3,491	4,350	3,760	3,254	2,225	1,237	1,103	741
MAX	522	87	93	184	4,960	4,980	5,280	5,040	4,020	1,330	1,180	991
MIN	23	36	61	74	76	3,030	1,820	1,780	1,000	1,060	978	600
AC-FT	11,250	3,780	4,410	6,120	193,900	267,500	223,800	200,100	132,400	76,070	67,790	44,090

CAL YR 1968: TOTAL 198,870

MEAN 543

MAX 1,800

MIN 23

AC-FT 394,500

WTR YR 1969: TOTAL 620,663

MEAN 1,700

MAX 5,280

MIN 23

AC-FT 1,231,000

13-2070. Spring Valley Creek near Eagle, Idaho

LOCATION.--Lat 43°44'20", long 116°18'00", in SW¼SE¼ sec.26, T.5 N., R.1 E., Ada County, on right bank at mile 0.5 and 4 miles northeast of Eagle.

DRAINAGE AREA.--20.9 sq mi.

PERIOD OF RECORD.--June 1954 to September 1959, October 1960 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,721.70 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--14 years, 2.34 cfs (1,700 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 151 cfs Jan. 21 (gage height, 2.53 ft); no flow for long periods.

Period of record: Maximum discharge, 244 cfs Feb. 26, 1957 (gage height, 2.85 ft); no flow for long periods each year.

REMARKS.--Records good except those below 1 cfs, which are fair. Diversions above station for irrigation. The flow of an artesian well entered the creek upstream from gage during the periods Oct. 1, Oct. 20 to Apr. 25, June 2, 3, 6-14, June 24 to July 1, July 3-23; the artesian well flow probably was insignificant Dec. 24 to Apr. 25.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 30 to Jan. 3, Jan. 20-21, 24, 29-30, Feb. 2, 4, Mar. 12-13)

1.0	0	1.5	6.8
1.1	.13	1.7	17
1.2	.63	2.0	43
1.3	1.8	2.3	90
1.4	3.8		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.09	.11	1.7	23	9.3	16	4.9	0	.06	0	0
2	0	.09	.09	2.0	20	9.8	15	4.4	.01	0	0	0
3	0	.11	.11	2.3	16	9.3	14	4.4	.01	.01	0	0
4	0	.11	.11	2.5	15	9.3	11	4.1	0	.13	0	0
5	0	.11	.11	3.4	15	9.3	8.8	3.4	0	.13	0	0
6	0	.11	.11	6.5	14	9.3	14	2.5	.10	.13	0	0
7	0	.11	.11	11	14	9.8	16	2.3	.13	.15	0	0
8	0	.11	.13	5.8	13	9.3	15	1.8	.21	.15	0	0
9	0	.11	.13	5.5	13	8.8	14	.55	.49	.10	0	0
10	0	.11	.13	5.8	14	8.4	12	0	.37	.09	0	0
11	0	.11	.21	5.5	14	6.5	11	0	.55	.09	0	0
12	0	.13	.21	8.0	18	6.5	11	0	.25	.07	0	0
13	0	.13	.13	18	18	7.0	10	0	.09	.06	0	0
14	0	.13	.13	22	15	6.8	9.8	1.5	.05	.04	0	0
15	0	.13	.09	15	14	6.8	9.3	.90	0	.04	0	0
16	0	.11	.07	12	14	7.6	8.0	.80	0	.04	0	0
17	0	.11	.05	11	14	8.0	6.5	.49	0	.03	0	0
18	0	.11	.04	9.8	14	9.8	9.3	.90	0	.02	0	0
19	0	.11	.05	21	13	9.3	9.3	1.4	0	.01	0	0
20	0	.11	.03	45	12	9.3	8.0	1.5	0	.01	0	0
21	.03	.11	.01	85	12	9.3	6.5	.90	0	.01	0	0
22	.05	.11	.01	79	12	9.8	5.8	.11	0	.02	0	0
23	.06	.09	.02	49	12	11	4.6	.02	0	.02	0	0
24	.06	.11	4.3	46	12	11	4.9	.37	.30	0	0	0
25	.07	.11	9.8	45	11	11	5.5	.22	.25	0	0	0
26	.07	.09	5.5	49	11	11	6.1	0	.03	0	0	0
27	.07	.09	4.1	36	10	11	5.8	0	.02	0	0	0
28	.07	.09	3.4	33	9.8	11	5.5	0	.15	0	0	0
29	.09	.09	1.7	31	-----	12	5.2	0	.05	0	0	0
30	.09	.11	1.6	30	-----	11	4.9	0	.09	0	0	0
31	.09	-----	1.4	28	-----	15	-----	0	-----	0	0	-----
TOTAL	0.80	3.24	33.99	724.8	392.8	293.3	282.8	37.46	3.15	1.41	0	0
MEAN	.026	.11	1.10	23.4	14.0	9.46	9.43	1.21	.11	.046	0	0
MAX	.09	.13	9.8	85	23	15	16	4.9	.55	.15	0	0
MIN	0	.09	.01	1.7	9.8	6.5	4.6	0	0	0	0	0
AC-FT	1.6	6.4	67	1,440	779	582	561	74	6.3	2.8	0	0
CAL YR 1968: TOTAL	80.93			MEAN .22	MAX 9.8	MIN 0		AC-FT 160				
WTR YR 1969: TOTAL	1,773.75			MEAN 4.86	MAX 85	MIN 0		AC-FT 3,520				

BOISE RIVER BASIN

13-2120. Diversions from Boise River between at Boise and Notus gaging stations, Idaho

Between at Boise and at Notus gaging stations, 21 principal canals and several small farm laterals divert water from Boise River for irrigation.

Records of total diversions during period April to September for each canal for years 1919-46 and combined daily diversions covering period April to September for years 1947-67, and periods October and April to September for water years 1968-69 are published in reports of Geological Survey. Records of daily diversions for each canal 1916-69 are on file in office of Idaho Department of Water Administration. Prior to October 1967, no record available of diversions that are usually made during October and March. Miscellaneous diversions by pumping from Boise River below "at Boise" was reported by watermaster as follows (in acre-ft): April, 69; May, 310; June, 310; July, 293; August, 281; September, 185.

Records show summation of discharge for the recorded diversions. Staff gages on diversions are read daily or several times weekly, and discharge measurements are made frequently. Records furnished by watermaster for Boise River.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,350						147	1,860	2,260	1,810	2,220	2,010
2	1,350						280	1,860	2,240	1,930	2,190	2,010
3	1,360						344	1,900	2,220	2,030	2,200	1,990
4	1,200						378	1,910	2,250	2,120	2,200	1,960
5	1,130						362	1,960	2,260	2,200	2,210	1,920
6	1,130						393	1,970	2,350	2,220	2,220	1,800
7	1,110						395	2,080	2,400	2,260	2,210	1,730
8	1,100						417	2,130	2,450	2,040	2,220	1,680
9	1,100						440	2,300	2,460	2,160	2,200	1,640
10	1,100						532	2,340	2,280	2,320	2,200	1,660
11	1,060						552	2,370	2,300	2,360	2,190	1,650
12	931						579	2,430	2,250	2,390	2,160	1,660
13	878						618	2,430	2,240	2,420	2,160	1,600
14	877						643	2,420	2,220	2,400	2,170	1,590
15	496						680	2,380	2,140	2,420	2,160	1,600
16	387						745	2,400	2,220	2,420	2,120	1,590
17	307						956	2,400	2,160	2,420	2,120	1,580
18	308						1,010	2,380	2,210	2,420	2,120	1,480
19	310						1,100	2,390	2,260	2,410	2,100	1,480
20	310						1,160	2,350	2,280	2,390	2,100	1,460
21	105						1,380	2,330	2,160	2,190	2,070	1,480
22	112						1,610	2,330	2,160	2,410	2,120	1,430
23	114						1,820	2,290	2,310	2,400	2,120	1,460
24	115						1,890	2,300	2,030	2,350	2,110	1,440
25	115						1,910	2,290	2,000	2,310	2,110	1,430
26	115						1,880	2,320	1,990	2,310	2,120	1,420
27	116						1,880	2,320	1,990	2,300	2,090	1,420
28	116						1,870	2,310	1,840	2,290	2,070	1,410
29	117						1,910	2,300	1,790	2,270	2,070	1,400
30	117						1,880	2,280	1,790	2,280	2,020	1,390
31	117	-----			-----	-----	-----	2,260	-----	2,240	2,020	-----
TOTAL	19,053						29,761	69,590	65,510	70,490	66,390	48,370
MEAN	615						992	2,245	2,184	2,274	2,142	1,612
MAX	1,360						1,910	2,430	2,460	2,420	2,220	2,010
MIN	105						147	1,860	1,790	1,810	2,020	1,390
AC-FT	37,790						59,030	138,000	129,900	139,800	131,700	95,940

13-2125. Boise River at Notus, Idaho

LOCATION.--Lat 43°43'21", long 116°47'34", in SE¼SE¼ sec.34, T.5 N., R.4 W., Canyon County, on right bank 1,100 ft upstream from county road bridge, 0.4 mile (revised) southeast of Notus, 7 miles northwest of Caldwell, and at mile 14.0.

DRAINAGE AREA.--3,820 sq mi, approximately.

PERIOD OF RECORD.--April 1920 to current year (irrigation seasons only 1923-24 water years).

GAGE.--Water-stage recorder. Datum of gage is 2,288.55 ft above mean sea level (levels by Corps of Engineers, Boise River Surveys). Prior to Aug. 26, 1936, nonrecording gage at site 1,100 ft downstream at same datum.

EXTREMES.--Current year: Maximum discharge, 5,810 cfs Feb. 19 (gage height, 7.64 ft); minimum, 143 cfs July 12 (gage height, 1.36 ft).

Period of record: Maximum discharge, 20,500 cfs Apr. 20, 1943 (gage height, 10.43 ft); minimum observed, 10 cfs Aug. 18, 21, 1920.

REMARKS.--Records good. Flow regulated by Anderson Ranch Reservoir beginning December 1945 (see sta 13-1900), Arrowrock Reservoir beginning April 1920 (see sta 13-1940), and Lucky Peak Reservoir 49.8 miles upstream beginning October 1954 (see sta 13-2015). 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). Records of chemical analysis and water temperatures for the water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1347: 1930.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-11, Nov. 6 to Feb. 17)

Oct. 1 to Feb. 16				Feb. 17 to Sept. 30			
2.0	203	5.0	2,200	1.4	153	3.0	894
2.5	450	6.0	3,470	1.5	179	4.0	1,800
3.0	724	7.0	5,020	2.0	340	6.0	3,930
4.0	1,320	7.5	5,830	2.5	569	7.6	5,830

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	787	718	686	874	5,660	3,270	4,700	1,120	813	308	483
2	250	785	718	687	851	5,640	3,040	4,650	1,070	595	315	487
3	316	799	713	688	823	5,640	2,660	4,630	934	389	320	496
4	400	807	716	693	821	5,650	2,430	4,610	801	362	331	543
5	485	781	724	695	811	5,640	2,100	4,580	802	347	316	576
6	451	767	706	707	815	5,650	2,260	4,440	1,720	353	318	589
7	425	758	700	757	929	5,610	2,450	2,720	2,890	338	337	576
8	418	770	697	733	2,200	5,610	2,110	2,340	3,350	255	337	558
9	428	838	691	704	3,300	5,630	2,040	2,200	3,680	279	320	503
10	477	788	695	682	3,500	5,570	2,020	2,060	3,850	251	331	497
11	544	773	683	704	4,050	5,580	3,140	2,000	3,890	212	378	519
12	624	798	669	727	4,750	5,600	2,920	2,000	3,870	174	384	533
13	689	796	665	809	5,200	5,580	3,890	1,950	3,770	177	374	507
14	741	764	668	889	5,500	5,550	4,080	2,080	2,540	206	370	497
15	941	793	665	823	5,650	5,550	4,040	2,220	2,140	194	436	546
16	886	795	658	765	5,720	5,570	3,980	2,260	2,040	209	359	523
17	786	775	659	736	5,730	5,540	3,820	2,290	1,020	239	326	510
18	780	781	665	714	5,730	5,580	3,750	2,300	659	224	333	539
19	831	793	679	799	5,770	4,940	4,580	2,500	571	241	320	575
20	902	776	658	1,370	5,770	4,730	4,670	2,720	548	269	324	635
21	886	769	636	1,490	5,750	4,710	4,590	2,720	487	307	329	635
22	880	766	628	1,770	5,710	4,740	4,770	2,670	428	343	299	641
23	856	763	653	1,360	5,710	4,710	4,790	2,580	545	370	313	639
24	842	760	810	1,120	5,700	4,650	4,820	2,460	1,260	388	321	645
25	845	786	936	1,060	5,720	4,700	4,840	2,420	1,290	367	326	582
26	842	764	880	1,100	5,690	3,950	4,840	2,380	1,240	343	343	559
27	829	747	800	1,080	5,660	3,720	4,790	2,290	1,240	350	352	527
28	811	726	775	986	5,650	3,700	4,760	2,260	1,330	363	376	504
29	828	720	761	934	-----	3,660	4,660	1,180	1,110	335	393	535
30	816	726	720	882	-----	3,570	4,700	1,110	1,020	312	427	573
31	799	-----	702	894	-----	3,570	-----	1,090	-----	314	469	-----
TOTAL	20,852	23,251	22,048	28,044	114,384	156,200	110,810	82,410	51,215	9,919	10,785	16,532
MEAN	673	775	711	905	4,085	5,039	3,694	2,658	1,707	320	348	551
MAX	941	838	936	1,770	5,770	5,660	4,840	4,700	3,890	813	469	645
MIN	244	720	628	682	811	3,570	2,020	1,090	428	174	299	483
AC-FT	41,360	46,120	43,730	55,620	226,900	309,800	219,800	163,500	101,600	19,670	21,390	32,790
CAL YR 1968: TOTAL	177,838			MEAN	486	MAX	1,270	MIN	22	AC-FT	352,700	
WTR YR 1969: TOTAL	646,450			MEAN	1,771	MAX	5,770	MIN	174	AC-FT	1,282,000	

PAYETTE RIVER BASIN

13-2350. South Fork Payette River at Lowman, Idaho

LOCATION.--Lat 44°05'05", long 115°37'10", in SW¼ sec.27, T.9 N., R.7 E., Boise County, Boise National Forest, on right bank 1,200 ft upstream from Rock Creek, 0.5 mile northwest of Lowman, 4,000 ft downstream from Clear Creek, and at mile 28.2.

DRAINAGE AREA.--456 sq mi. Mean altitude, 6,780 ft.

PERIOD OF RECORD.--May 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,790 ft (from river-profile map). Prior to Dec. 18, 1941, nonrecording gage at site 900 ft upstream at different datum.

AVERAGE DISCHARGE.--28 years, 864 cfs (25.73 inches per year, 626,000 acre-ft per year); 15-year base period (1952-67), 852 cfs.

EXTREMES.--Current year: Maximum discharge, 4,500 cfs May 26 (gage height, 6.28 ft); minimum, 216 cfs Dec. 21 (gage height, 2.58 ft).

Period of record: Maximum discharge, 7,050 cfs May 24, 1956 (gage height, 7.45 ft); minimum, 135 cfs Sept. 10, 1966 (gage height, 2.22 ft).

REMARKS.--Records good. No regulation. Several small diversions for irrigation and placer mining, the return flow from which enters river above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.6	216	5.0	2,320
3.0	378	6.0	3,920
3.5	705	6.3	4,500
4.0	1,120		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	394	415	396	373	422	345	1,090	1,530	3,560	1,240	635	377
2	388	407	394	364	412	341	1,130	1,450	3,390	1,200	620	370
3	383	414	392	337	403	347	1,260	1,400	3,470	1,220	603	365
4	378	434	407	345	381	345	1,240	1,410	3,680	1,220	585	366
5	374	401	409	373	399	356	1,370	1,550	4,020	1,200	571	368
6	372	379	381	450	397	358	1,640	1,850	4,050	1,250	563	363
7	369	382	350	458	384	350	1,630	2,210	3,930	1,360	551	359
8	365	387	391	411	374	348	1,380	2,660	3,610	1,260	536	352
9	358	502	368	393	385	341	1,390	3,080	3,610	1,190	523	351
10	358	470	373	393	379	330	1,540	3,360	3,450	1,160	510	358
11	353	490	380	383	374	330	1,540	3,560	3,300	1,150	499	376
12	489	739	366	405	376	345	1,580	3,620	3,060	1,150	500	370
13	568	640	274	462	373	348	1,670	3,660	2,900	1,140	490	378
14	521	522	359	492	359	358	1,600	3,970	2,690	1,090	479	358
15	519	524	377	455	363	369	1,520	4,070	2,530	1,050	467	351
16	506	504	386	412	360	379	1,500	3,720	2,390	1,010	459	347
17	478	481	350	423	354	389	1,570	3,570	2,220	966	453	346
18	473	478	352	391	345	413	1,770	3,730	2,120	929	445	343
19	452	474	353	426	353	402	1,690	3,840	2,070	897	437	379
20	462	462	307	433	350	397	1,580	3,650	2,020	870	429	427
21	458	460	242	696	360	414	1,630	3,320	1,950	850	420	408
22	445	526	275	676	353	452	2,020	3,210	1,890	831	415	373
23	438	515	360	502	356	465	2,540	3,400	1,790	805	411	364
24	437	489	384	414	358	447	2,630	3,790	2,070	780	403	380
25	433	481	393	469	354	454	2,220	4,200	1,890	769	396	361
26	434	432	373	536	347	503	1,910	4,420	1,700	758	394	352
27	425	440	353	483	339	618	1,730	4,300	1,560	724	388	345
28	421	417	338	463	341	648	1,660	3,860	1,470	707	392	339
29	420	380	334	429	-----	740	1,700	3,550	1,390	693	389	336
30	431	439	323	406	-----	851	1,620	3,610	1,310	675	387	338
31	425	-----	307	418	-----	1,020	-----	3,860	-----	654	384	-----
TOTAL	13,327	14,084	11,047	13,671	10,351	13,803	49,350	99,410	79,090	30,798	14,734	10,900
MEAN	430	469	356	441	370	445	1,645	3,207	2,636	993	475	363
MAX	568	739	409	696	422	1,020	2,630	4,420	4,050	1,360	635	427
MIN	353	379	242	337	339	330	1,090	1,400	1,310	654	384	336
CFSM	.94	1.03	.78	.97	.81	.98	3.61	7.03	5.78	2.18	1.04	.80
IN.	1.09	1.15	.90	1.11	.84	1.13	4.02	8.11	6.45	2.51	1.20	.89
AC-FT	26,430	27,940	21,910	27,120	20,530	27,380	97,880	197,200	156,900	61,090	29,220	21,620

CAL YR 1968: TOTAL 251,227
WTR YR 1969: TOTAL 360,565

MEAN 686
MEAN 988

MAX 2,840
MAX 4,420

MIN 221
MIN 242

CFSM 1.51
CFSM 2.17

IN 20.49
IN 29.41

AC-FT 498,300
AC-FT 715,200

PAYETTE RIVER BASIN

211

13-2360. Deadwood Reservoir near Lowman, Idaho

LOCATION.--Lat 44°17'38", long 115°38'41", in SW¼SE¼ sec.8, T.11 N., R.7 E., Valley County, Boise National Forest, at dam on Deadwood River, 15 miles north of Lowman, and at mile 24.4.

DRAINAGE AREA.--112 sq mi.

PERIOD OF RECORD.--October 1935 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Datum of Geological Survey levels (1952, preliminary) is 22.8 ft higher. Prior to July 1, 1964, nonrecording gage.

EXTREMES.--Current year: Maximum elevation, 5,335.40 ft June 24; minimum, 5,289.47 ft Oct. 1.

Period of record: Maximum elevation observed, 5,337.1 ft June 1, 2, 1943; minimum observed, 5,205.0 ft Sept. 18 to Oct. 11, 1951, when reservoir was drained for repairs.

REMARKS.--Reservoir is formed by concrete-arch dam completed in 1930; storage began Nov. 2, 1930. Reported capacity, 160,400 acre-ft between elevations 5,230.0 ft (minimum operating level because of fish protections, 27 ft above sill of emergency gate in front of needle valve) and 5,334.0 ft (crest of spillway). Storage below elevation 5,230 ft, about 1,500 acre-ft. Water is used to augment flow of Payette River at Black Canyon powerplant near Emmett and, since 1956, as supplemental irrigation supply for Emmett Irrigation District and other users. Small diversion from a tributary of Johnson Creek in Salmon River basin to Deadwood River basin for supplemental storage in Deadwood Reservoir. Discharge of 1.53 cfs was measured in this canal on Aug. 23.

COOPERATION.--Gage readings furnished by Bureau of Reclamation.

REVISIONS.--WSP 1567: Drainage area.

DAILY ELEVATION, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289.53	292.54	295.90	298.79	302.25	304.35	306.40	314.73	329.04	335.04	318.08	294.50
2	289.60	292.64	295.98	298.84	302.32	304.41	306.51	314.42	329.51	334.91	317.40	293.69
3	289.68	292.75	296.06	298.94	302.35	304.45	306.64	314.04	329.99	334.62	316.75	293.04
4	289.74	292.82	296.23	299.02	302.44	304.52	306.77	313.67	330.54	334.20	316.06	292.71
5	289.81	292.91	296.31	299.13	302.53	304.60	306.95	313.38	331.16	333.70	315.34	292.63
6	289.90	292.99	296.36	299.22	302.62	304.65	307.18	313.21	331.68	333.23	314.67	292.69
7	289.96	293.09	296.44	299.33	302.71	304.71	307.37	313.17	332.17	332.75	313.98	292.76
8	290.02	293.22	296.53	299.41	302.81	304.75	307.55	313.22	332.61	332.26	313.31	292.84
9	290.09	293.35	296.61	299.51	302.91	304.72	307.77	313.45	333.05	331.75	312.60	292.92
10	290.13	293.49	296.73	299.62	303.01	304.86	308.00	313.76	333.41	331.20	311.87	292.99
11	290.27	293.69	296.85	299.77	303.08	304.92	308.24	314.15	333.70	330.65	311.16	293.09
12	290.47	293.90	296.93	299.91	303.17	304.98	308.52	314.58	333.94	330.09	310.44	293.16
13	290.63	294.03	296.98	300.11	303.24	305.04	308.80	314.99	334.18	329.56	309.75	293.26
14	290.77	294.12	297.09	300.20	303.30	305.09	309.11	315.90	334.50	329.00	309.00	293.34
15	290.90	294.23	297.22	300.26	303.39	305.16	309.39	316.99	334.80	328.44	308.25	293.42
16	291.00	294.33	297.29	300.37	303.45	305.21	309.69	317.81	335.02	327.89	307.50	293.49
17	291.11	294.43	297.36	300.44	303.52	305.35	310.02	318.60	335.17	327.31	306.75	293.56
18	291.20	294.58	297.48	300.54	303.58	305.38	310.41	319.40	335.26	326.73	305.99	293.63
19	291.28	294.63	297.55	300.73	303.64	305.44	310.78	320.25	335.35	326.16	305.22	293.75
20	291.41	294.76	297.61	300.95	303.71	305.49	311.12	321.05	335.34	325.57	304.45	293.87
21	291.51	294.88	297.68	301.14	303.77	305.56	311.50	321.70	335.34	324.97	303.67	293.95
22	291.60	295.04	297.78	301.23	303.84	305.64	311.96	322.30	335.30	324.36	302.89	294.02
23	291.70	295.15	297.91	301.29	303.95	305.67	312.55	322.96	335.31	323.78	302.11	294.12
24	291.78	295.26	298.06	301.37	304.05	305.73	313.10	323.72	335.40	323.15	301.30	294.21
25	291.88	295.36	298.15	301.53	304.12	305.79	313.56	324.55	335.37	322.55	300.49	294.29
26	291.99	295.46	298.23	301.67	304.17	305.86	313.94	325.38	335.30	321.93	299.65	294.36
27	292.09	295.56	298.37	301.77	304.23	305.93	314.33	326.15	335.23	321.32	298.81	294.44
28	292.17	295.63	298.46	301.85	304.28	305.99	314.70	326.84	335.18	320.68	297.95	294.51
29	292.28	295.73	298.53	301.93	-----	306.09	314.90	327.32	335.13	320.03	297.10	294.59
30	292.37	295.82	298.59	302.06	-----	306.18	314.90	327.95	335.10	319.39	296.24	294.65
31	292.45	-----	293.70	302.18	-----	306.29	-----	328.53	-----	318.74	295.38	-----
MAX	292.45	295.82	298.70	302.18	304.28	306.29	314.90	328.53	335.40	335.04	318.08	294.65
MIN	289.53	292.54	295.90	298.79	302.25	304.35	306.40	313.17	329.04	318.74	295.38	292.63
MEAN	290.95	294.21	297.29	300.42	303.30	305.25	310.09	318.97	333.77	327.61	307.23	293.62

NOTE.--Add 5,000 ft to obtain elevation above mean sea level.

PAYETTE RIVER BASIN

13-2365. Deadwood River below Deadwood Reservoir, near Lowman, Idaho

LOCATION.--Lat 44°17'30", long 115°38'33", in SE¼NE¼ sec.17, T.11 N., R.7 E., Valley County, Boise National Forest, on right bank 300 ft upstream from Wilson Creek, 0.2 mile downstream from Deadwood Dam at lower end of Deadwood basin, 15 miles north of Lowman, and at mile 23.4.

DRAINAGE AREA.--112 sq mi. Mean altitude, 6,630 ft.

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only prior to May 1927, published in WSP 1317. Published as "at Beaver Creek ranger station, near Lowman" prior to October 1934.

GAGE.--Water-stage recorder. Datum of gage is 5,180.52 ft above mean sea level (levels by Bureau of Reclamation). Datum of 1929, supplementary adjustment of 1947, is 29.19 ft higher. Prior to June 22, 1935, at site 600 ft upstream at datum 5.85 ft higher and Oct. 1, 1935, to Aug. 3, 1955, at present site at datum 1.00 ft higher. June 22 to Sept. 30, 1935, nonrecording gage at site 20 ft upstream at datum 2.00 ft higher.

AVERAGE DISCHARGE.--43 years, 226 cfs (163,700 acre-ft per year); 15-year base period (1952-67), 249 cfs.

EXTREMES.--Current year: Maximum discharge, 1,100 cfs July 4 (gage height, 6.64 ft); minimum, 1.7 cfs Mar. 7 (gage height, 0.98 ft).

Period of record: 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.--Records good except those below 3.0 cfs, which are fair. Flow regulated by Deadwood Reservoir (see sta 13-2360).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 2-15, July 3 to Sept. 3; backwater from Wilson Creek
Apr. 11-28)

0.9	1.3	1.5	19	4.0	325
1.0	2.0	2.0	58	5.0	574
1.1	3.3	2.5	110	6.0	903
1.2	5.8	3.0	171	6.5	1,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.1	2.1	2.0	1.9	2.0	2.7	512	497	404	976	873
2	2.3	2.0	2.1	2.0	1.9	2.0	2.7	678	523	500	972	798
3	2.1	2.0	2.1	2.0	1.9	2.0	2.7	826	506	732	972	595
4	2.1	2.0	2.1	2.0	1.9	2.0	2.7	911	503	964	968	378
5	2.1	2.0	2.1	2.0	1.9	2.0	2.5	941	503	1,050	964	155
6	2.3	2.1	2.1	2.0	1.9	2.0	2.7	941	528	1,040	964	1.8
7	2.3	2.0	2.1	2.0	1.9	2.0	2.8	941	525	1,040	957	1.8
8	2.3	2.1	2.1	2.0	1.9	2.1	2.8	945	525	1,040	957	1.9
9	2.3	2.3	2.1	2.0	1.9	2.0	2.8	945	500	1,030	954	1.9
10	2.3	2.0	2.1	2.0	1.9	2.0	2.9	945	506	1,030	952	2.0
11	2.3	2.1	2.1	2.0	1.9	2.1	2.9	949	525	1,030	949	2.0
12	2.4	2.4	2.1	2.0	1.9	2.0	2.9	949	497	1,030	945	2.1
13	2.3	2.3	2.1	2.0	1.9	2.1	2.9	949	422	1,020	941	2.1
14	2.3	2.3	2.1	2.0	1.9	2.1	2.9	949	266	1,020	937	2.3
15	2.3	2.3	2.1	2.0	2.0	2.1	2.9	750	195	1,020	933	2.1
16	2.3	2.1	2.1	2.0	2.0	2.1	2.9	503	294	1,020	930	2.4
17	2.3	2.1	2.1	2.0	2.0	2.1	2.9	503	368	1,020	926	2.4
18	2.3	2.1	2.1	2.0	2.0	2.3	2.9	503	426	1,020	922	2.4
19	2.1	2.1	2.1	2.0	2.0	2.3	2.9	500	459	1,020	922	2.4
20	2.1	2.1	2.1	2.0	2.0	2.1	2.9	500	495	1,010	919	2.4
21	2.0	2.1	2.1	2.0	2.0	2.3	2.9	503	500	1,010	918	2.3
22	2.0	2.3	2.1	2.0	2.0	2.3	2.9	509	489	1,010	911	2.3
23	2.0	2.2	2.1	2.0	2.0	2.3	2.9	509	481	1,000	907	2.3
24	2.1	2.2	2.1	2.0	2.0	2.3	2.9	511	534	1,000	903	2.3
25	2.1	2.2	2.1	2.0	2.0	2.1	2.9	514	545	1,000	899	2.1
26	2.1	2.2	2.1	2.0	2.0	2.3	2.9	514	528	1,000	896	2.5
27	2.3	2.2	2.1	2.0	2.0	2.3	2.9	503	492	1,000	892	2.1
28	2.1	2.2	2.1	2.0	2.0	2.4	2.9	503	465	992	888	2.1
29	2.1	2.2	2.1	2.0	-----	2.4	93	506	431	992	884	2.1
30	2.3	2.2	2.1	2.0	-----	2.5	290	489	406	988	881	2.1
31	2.3	-----	2.1	2.0	-----	2.7	-----	489	-----	984	877	-----
TOTAL	68.3	64.5	65.1	62.0	54.6	67.3	462.5	21,190	13,934	30,016	28,316	2,853.2
MEAN	2.20	2.15	2.10	2.00	1.95	2.17	15.4	684	464	968	930	95.1
MAX	2.4	2.4	2.1	2.0	2.0	2.7	290	949	545	1,050	976	873
MIN	2.0	2.0	2.1	2.0	1.9	2.0	2.5	489	195	404	877	1.8
AC-FT	135	128	129	123	108	133	917	42,030	27,640	59,540	57,160	5,660

CAL YR 1968: TOTAL 74,562.08 MEAN 204 MAX 1,030 MIN .63 AC-FT 147,900
WTR YR 1969: TOTAL 97,653.5 MEAN 268 MAX 1,050 MIN 1.8 AC-FT 193,700

NOTE.--No gage-height record Nov. 23 to Feb. 13.

PAYETTE RIVER BASIN

213

13-2380. Payette River near Banks, Idaho

LOCATION.--Lat 44°05'08", long 116°05'56", in NE¼SE¼ sec.28, T.9 N., R.3 E., Boise, County, Boise National Forest, on right bank 1 mile upstream from North Fork Payette River, 1.5 miles northeast of Banks, and at mile 73.8.

DRAINAGE AREA.--1,200 sq mi, approximately. Mean altitude, 6,020 ft.

PERIOD OF RECORD.--August 1921 to current year. Prior to October 1960, published as South Fork Payette River near Banks.

GAGE.--Water-stage recorder. Altitude of gage is 2,805 ft (from river-profile map). Prior to Sept. 12, 1922, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--48 years, 1,773 cfs (1,285,000 acre-ft per year); 15-year base period (1952-67), 1,921 cfs.

EXTREMES.--Current year: Maximum discharge, 10,400 cfs May 14 (gage height, 10.62 ft); minimum, 416 cfs Dec. 22 (gage height, 0.62 ft).

Period of record: Maximum discharge, 20,800 cfs Dec. 23, 1964 (gage height, 15.46 ft, from floodmark); minimum daily, 220 cfs Dec. 15, 1967; minimum recorded gage height, 0.09 ft Dec. 17, 1967.

REMARKS.--Records good. Flow partly regulated since November 1930 by Deadwood Reservoir 55.6 miles upstream (see sta 13-2360). Small diversions above station for irrigation.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 21-22, 29-31, Jan. 24-25)

0.7	436	6.0	3,950
1.0	549	8.0	6,260
2.0	994	10	9,290
4.0	2,250	10.5	10,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	593	659	715	685	888	724	3,180	4,290	6,730	2,440	1,940	1,460
2	585	647	706	698	883	724	3,280	4,190	6,350	2,400	1,910	1,450
3	577	664	706	655	864	750	3,630	4,200	6,350	2,520	1,890	1,270
4	577	706	715	647	809	755	3,420	4,230	6,670	2,770	1,860	1,070
5	569	672	759	681	809	804	3,810	4,640	7,180	2,860	1,840	892
6	569	618	711	813	832	809	4,620	5,260	7,290	2,870	1,820	702
7	565	614	605	926	813	773	4,610	6,000	7,030	3,040	1,810	601
8	561	647	694	883	777	786	3,800	6,950	6,500	2,920	1,790	589
9	561	864	689	800	791	746	3,710	7,770	6,440	2,810	1,770	577
10	565	883	689	777	791	741	4,090	8,530	6,080	2,750	1,740	589
11	561	795	733	755	782	711	4,070	9,040	5,750	2,720	1,730	618
12	685	1,250	694	759	795	750	4,160	9,270	5,270	2,700	1,740	610
13	874	1,210	549	907	800	773	4,500	9,170	4,950	2,680	1,720	618
14	822	945	541	1,200	746	809	4,380	10,000	4,480	2,610	1,700	597
15	804	864	685	1,110	773	836	4,180	9,920	3,990	2,550	1,670	585
16	791	869	777	974	764	878	4,080	8,830	3,880	2,490	1,650	581
17	737	822	672	911	746	916	4,240	8,150	3,700	2,440	1,640	573
18	715	813	643	850	719	1,040	4,900	8,290	3,580	2,380	1,630	569
19	702	841	651	859	719	1,040	4,760	8,590	3,520	2,330	1,620	601
20	702	804	593	897	719	1,030	4,290	8,250	3,530	2,290	1,590	689
21	750	786	450	1,600	768	1,080	4,220	7,340	3,440	2,250	1,580	737
22	698	878	480	2,350	750	1,190	5,030	6,880	3,290	2,220	1,570	651
23	689	965	689	1,610	750	1,280	6,290	7,060	3,180	2,190	1,560	626
24	685	888	724	1,100	750	1,240	6,870	7,740	3,900	2,150	1,540	651
25	681	883	759	1,100	741	1,260	5,630	8,460	3,660	2,130	1,520	634
26	681	795	728	1,280	724	1,380	4,780	8,900	3,280	2,110	1,510	614
27	668	791	685	1,170	698	1,650	4,250	8,730	3,020	2,080	1,510	605
28	659	759	643	1,050	702	1,700	4,070	7,720	2,880	2,050	1,500	593
29	655	659	590	955	-----	1,960	4,280	6,990	2,720	2,020	1,490	585
30	676	786	580	888	-----	2,310	4,280	6,850	2,600	1,990	1,480	589
31	685	-----	560	897	-----	2,920	-----	7,220	-----	1,970	1,480	-----
TOTAL	20,642	24,377	20,415	30,787	21,703	34,365	131,410	229,460	141,240	75,730	51,800	21,526
MEAN	666	813	659	993	775	1,109	4,380	7,402	4,708	2,443	1,671	718
MAX	874	1,250	777	2,350	888	2,920	6,870	10,000	7,290	3,040	1,940	1,460
MIN	561	614	450	647	698	711	3,180	4,190	2,600	1,970	1,480	569
AC-FT	40,940	48,350	40,490	61,070	43,050	68,160	260,600	455,100	280,100	150,200	102,700	42,700

CAL YR 1968 : TOTAL 513,333

MEAN 1,403

MAX 4,380

MIN 350

AC-FT 1,018,000

WTR YR 1969 : TOTAL 803,455

MEAN 2,201

MAX 10,000

MIN 450

AC-FT 1,594,000

PAYETTE RIVER BASIN

13-2385. Payette Lake at McCall, Idaho

LOCATION.--Lat 44°54'50", long 116°07'10", in NW¼ sec.8, T.18 N., R.3 E., Valley County, at outlet of lake on North Fork Payette River at McCall and at mile 75.4.

DRAINAGE AREA.--144 sq mi.

PERIOD OF RECORD.--August 1921 to current year (fragmentary prior to Nov. 23, 1943). Prior to October 1942, published as "at Lardo."

GAGE.--Water-stage recorder. Datum of gage is 4,982.73 ft above mean sea level, unadjusted. Prior to Aug. 26, 1931, nonrecording gage at site 25 ft downstream at datum 2.0 ft higher. Aug. 26, 1931, to Nov. 22, 1943, nonrecording gage at site 75 ft downstream at present datum.

EXTREMES.--Current year: Maximum gage height, 7.07 ft July 5; minimum, 1.79 ft Mar. 17.

Period of record: Maximum gage height observed, 8.75 ft July 13, 1935; minimum observed, 0.95 ft Oct. 3, 1931.

REMARKS.--Flow from Payette Lake is regulated within natural range by taintor gates and removable stoplogs of a buttress and slab-type dam completed in November 1943. During period 1923-43 lake was regulated by structure consisting of a series of concrete-filled cribs supporting removable flashboards. Some regulation is reported to have been affected by timber flashboards for several years prior to 1923. Lake area is approximately 5,000 acres. No capacity table has been developed. Water is used for irrigation in vicinity of Emmett. No diversion above station.

REVISIONS (WATER YEARS).--WSP 753: 1931. WSP 1013: Drainage area.

GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1969												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.70	2.41	2.32	2.02	2.18	1.92	1.88	3.61	5.95	6.96	6.41	4.42
2	2.61	2.40	2.29	2.01	2.15	1.91	1.91	3.56	5.83	7.00	6.34	4.35
3	2.52	2.42	2.24	2.00	2.13	1.90	1.95	3.50	5.86	7.04	6.25	4.24
4	2.43	2.41	2.24	1.99	2.11	1.88	1.98	3.48	6.00	7.05	6.15	4.15
5	2.35	2.40	2.22	2.01	2.11	1.90	2.03	3.58	6.11	7.02	6.08	4.05
6	2.27	2.37	2.18	2.03	2.10	1.89	2.15	3.79	6.13	6.94	5.97	3.96
7	2.19	2.36	2.15	2.07	2.09	1.89	2.19	4.14	6.10	6.92	5.87	3.88
8	2.13	2.41	2.13	2.09	2.07	1.88	2.23	4.56	5.99	6.92	5.75	3.79
9	2.07	2.44	2.11	2.11	2.06	1.87	2.26	4.89	5.91	6.90	5.66	3.69
10	2.02	2.44	2.10	2.13	2.05	1.86	2.32	5.22	5.77	6.89	5.56	3.62
11	2.00	2.47	2.10	2.17	2.04	1.85	2.36	5.54	5.56	6.87	5.46	3.58
12	2.09	2.65	2.08	2.17	2.06	1.84	2.43	5.73	5.33	6.84	5.34	3.51
13	2.12	2.69	2.05	2.24	2.05	1.83	2.53	5.87	5.12	6.82	5.24	3.43
14	2.13	2.72	2.04	2.24	2.04	1.82	2.61	6.15	4.93	6.77	5.14	3.34
15	2.16	2.75	2.07	2.23	2.03	1.81	2.65	6.21	4.75	6.75	5.03	3.25
16	2.21	2.75	2.06	2.21	2.01	1.81	2.70	6.10	4.65	6.75	4.94	3.17
17	2.24	2.74	2.04	2.20	2.00	1.80	2.78	6.05	4.85	6.76	4.86	3.10
18	2.28	2.77	2.05	2.18	1.98	1.83	2.93	6.11	5.05	6.76	4.84	3.07
19	2.30	2.78	2.03	2.23	1.97	1.82	3.01	6.22	5.27	6.75	4.81	3.02
20	2.36	2.78	2.00	2.29	1.96	1.81	3.03	6.18	5.62	6.75	4.78	3.04
21	2.39	2.77	1.97	2.32	1.95	1.80	3.06	5.97	5.87	6.74	4.76	2.98
22	2.41	2.79	1.97	2.30	1.94	1.81	3.21	5.89	6.11	6.73	4.73	2.92
23	2.43	2.75	2.04	2.27	1.95	1.81	3.49	5.98	6.51	6.72	4.71	2.87
24	2.41	2.69	2.08	2.23	1.95	1.81	3.68	6.15	6.87	6.71	4.68	2.84
25	2.40	2.62	2.09	2.24	1.96	1.80	3.72	6.28	6.56	6.69	4.64	2.79
26	2.40	2.56	2.08	2.23	1.95	1.81	3.70	6.50	6.51	6.67	4.62	2.73
27	2.40	2.49	2.09	2.22	1.94	1.81	3.66	6.44	6.61	6.65	4.58	2.68
28	2.40	2.42	2.08	2.20	1.93	1.81	3.63	6.13	6.73	6.64	4.55	2.63
29	2.39	2.38	2.06	2.17		1.82	3.64	5.88	6.85	6.62	4.50	2.57
30	2.41	2.36	2.04	2.17		1.83	3.63	6.12	6.96	6.58	4.47	2.56
31	2.41		2.03	2.19		1.86		6.12		6.49	4.44	
MEAN	2.31	2.57	2.10	2.17	2.03	1.84	2.78	5.42	5.88	6.80	5.20	3.34
MAX	2.70	2.79	2.32	2.32	2.18	1.92	3.72	6.50	6.96	7.05	6.41	4.42
MIN	2.00	2.36	1.97	1.99	1.93	1.80	1.88	3.48	4.65	6.49	4.44	2.56

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LOCATION.--Lat 44°54'30", long 116°07'10", in SW $\frac{1}{4}$ sec.8, T.18 N., R.3 E., Valley County, on left bank at McCall, 0.2 mile downstream from outlet of Payette Lake, and at mile 75.2.

PERIOD OF RECORD.--September 1908 to June 1917, May 1919 to current year. Prior to October 1942, published as "at Lardo."

AVERAGE DISCHARGE.--58 years, 361 cfs (261,500 acre-ft per year); 15-year base period (1952-67), 377 cfs.

EXTREMES.--Current year: Maximum discharge, 2,900 cfs May 27 (gage height, 6.43 ft); minimum daily, 7.8 cfs Oct. 16, 17, 21; minimum gage height recorded, 1.27 ft Oct. 16.

Period of record: 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.--Records good. Flow regulated to some extent since several years prior to 1923 by gates at outlet of Payette Lake 0.2 miles upstream (see sta 13-2385) and several smaller lakes upstream. Diversion for fish hatchery bypasses station and is returned below gage. Records of daily discharge of this diversion published in annual water-supply papers from October 1942 to February 1953.

REVISIONS.--WSP 963: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.2	5.7	3.5	475
1.4	10	4.0	740
1.7	23	5.0	1,490
2.0	48	6.0	2,460
2.5	129	7.0	3,560
3.0	273		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	124	224	142	181	105	104	592	2,410	121	243	49
2	221	123	216	138	176	103	110	576	2,260	350	233	168
3	216	125	206	134	168	102	118	561	2,180	245	224	229
4	200	125	199	133	161	99	128	545	2,260	218	222	237
5	191	124	195	134	157	100	139	555	2,380	232	229	245
6	193	123	186	141	156	101	162	596	2,430	311	251	251
7	169	121	176	149	153	99	187	672	2,430	245	251	256
8	149	122	168	158	145	98	199	915	2,350	212	248	254
9	133	127	161	163	143	98	213	1,260	2,280	210	245	263
10	121	127	155	170	140	96	229	1,510	2,180	206	245	266
11	111	128	156	176	135	94	245	1,750	2,010	205	252	242
12	125	141	153	180	138	93	266	1,970	1,810	204	248	254
13	141	151	146	195	140	91	296	2,110	1,610	203	251	244
14	145	153	142	204	136	90	321	2,300	1,470	203	252	236
15	112	154	140	201	134	89	338	2,460	1,330	193	248	230
16	7.8	156	146	196	132	88	350	2,300	1,080	95	245	224
17	7.8	156	143	193	126	89	367	2,220	273	95	136	216
18	7.9	157	141	188	123	93	404	2,400	220	95	56	209
19	7.9	158	141	194	120	95	432	2,490	209	95	56	203
20	8.0	158	136	201	117	93	445	2,550	19	95	56	203
21	7.8	158	131	224	114	92	447	2,410	19	95	57	200
22	7.9	161	128	224	112	92	470	2,280	19	95	57	195
23	41	272	132	214	114	95	530	2,280	21	97	56	191
24	121	340	147	204	114	93	600	2,420	386	97	56	187
25	120	323	155	199	117	91	626	2,550	1,560	97	55	179
26	119	301	155	199	115	93	622	2,450	684	96	54	175
27	119	280	153	196	113	92	614	2,850	340	95	54	170
28	121	262	157	187	107	92	605	2,640	248	95	53	163
29	120	244	150	180	-----	93	599	2,360	146	95	51	158
30	121	236	145	179	-----	95	599	2,330	29	131	51	154
31	123	-----	143	179	-----	99	-----	2,510	-----	245	50	-----
TOTAL	3,516.1	5,330	4,926	5,575	3,787	2,943	10,765	57,412	36,643	5,071	4,785	6,251
MEAN	113	178	159	180	135	94.9	359	1,852	1,221	164	154	208
MAX	229	340	224	224	181	105	626	2,850	2,430	350	252	266
MIN	7.8	121	128	133	107	88	104	545	19	95	50	49
AC-FT	6,970	10,570	9,770	11,060	7,510	5,840	21,350	113,900	72,680	10,060	9,490	12,400
CAL YR 1968 : TOTAL	121,021.1			MEAN 331		MAX 2,280	MIN 7.8			AC-FT 240,000		
WTR YR 1969 : TOTAL	147,004.1			MEAN 403		MAX 2,850	MIN 7.8			AC-FT 291,600		

PAYETTE RIVER BASIN

13-2400. Lake Fork Payette River above Jumbo Creek, near McCall, Idaho

LOCATION.--Lat 44°54'50", long 115°59'10", in NE¼ sec.8, T.18 N., R.4 E., Valley County, on left bank 200 ft upstream from bridge at abandoned powerplant, 0.2 mile upstream from Jumbo Creek, 3.5 miles upstream from Lake Fork Reservoir dam, 5.5 miles east of McCall, and at mile 21.0.

DRAINAGE AREA.--48.9 sq mi. Mean altitude, 6,950 ft.

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,140 ft (from topographic map). Prior to Nov. 10, 1945, non-recording gage at site 200 ft downstream at different datum.

AVERAGE DISCHARGE.--24 years, 146 cfs (40.55 inches per year, 105,800 acre-ft per year); 15-year base period (1952-67), 143 cfs.

EXTREMES.--Current year: Maximum discharge, 1,310 cfs May 25 (gage height, 7.48 ft); minimum, 5.2 cfs Nov. 16 (gage height, 1.45 ft).

Period of record: Maximum discharge, 2,600 cfs June 3, 1948 (gage height, 9.19 ft), from rating curve extended above 1,000 cfs; minimum, 1.2 cfs Dec. 3, 1967; minimum gage height, 1.21 ft Nov. 20, 1961.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No diversion above station. Flow regulated by Cruzen Reservoir, capacity 1,230 acre-ft.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-11, May 9 to June 10; stage-discharge relation affected by ice Dec. 6-7, 13-15, 20-21, 28, 30-31, Jan. 3, 8-9, 16-17, 23-25)

1.4	4.8	3.0	41	6.0	438
1.5	5.7	3.5	66	7.0	860
2.0	12	4.0	104	7.6	1,310
2.5	24	5.0	228		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	61	51	38	58	35	59	212	734	195	35	15
2	22	58	52	38	58	34	64	197	714	191	33	15
3	22	57	51	37	58	34	80	185	794	188	32	14
4	21	58	51	37	54	34	78	190	955	171	31	14
5	20	56	51	40	55	34	99	231	1,050	159	30	15
6	20	52	47	76	54	33	140	307	970	150	30	14
7	20	51	46	119	54	32	132	447	873	137	29	14
8	19	50	48	85	52	31	114	644	794	128	27	14
9	19	54	47	70	53	31	122	734	766	124	27	13
10	20	58	47	65	51	27	148	799	719	119	26	13
11	20	59	48	61	49	27	145	848	631	115	25	15
12	48	87	44	58	48	27	164	867	521	109	25	16
13	70	194	42	64	47	28	200	880	486	98	24	15
14	64	140	43	72	46	29	197	1,040	444	89	24	14
15	57	85	44	66	45	29	183	998	405	83	23	13
16	51	44	45	60	44	29	176	760	367	77	22	13
17	47	6.9	44	56	43	29	200	766	353	71	22	13
18	46	20	42	56	40	29	257	887	342	67	21	13
19	44	54	41	57	39	29	236	1,020	216	64	20	20
20	44	60	36	56	40	29	200	920	65	60	20	28
21	43	60	34	64	39	29	200	709	293	57	19	27
22	43	71	36	67	39	29	290	729	268	54	19	20
23	43	71	40	65	39	29	427	842	353	111	18	18
24	45	66	41	54	38	30	418	1,090	458	161	17	25
25	48	63	41	52	37	31	317	1,100	324	143	17	21
26	53	58	41	54	38	31	263	1,090	260	122	17	18
27	54	58	40	58	38	32	234	970	246	101	16	16
28	53	54	38	58	36	33	230	714	270	80	16	15
29	54	50	38	58	-----	36	246	671	246	57	16	15
30	60	56	38	58	-----	41	233	970	213	42	16	19
31	63	-----	38	58	-----	51	-----	914	-----	37	15	-----
TOTAL	1,256	1,911.9	1,345	1,857	1,292	982	5,852	22,731	15,130	3,360	712	495
MEAN	40.5	63.7	43.4	59.9	46.1	31.7	195	733	504	108	23.0	16.5
MAX	70	194	52	119	58	51	427	1,100	1,050	195	35	28
MIN	19	6.9	34	37	36	27	59	185	65	37	15	13
CFSM	.83	1.30	.89	1.23	.94	.65	3.99	15.0	10.3	2.22	.47	.34
IN.	.96	1.45	1.02	1.41	.98	.75	4.45	17.29	11.51	2.56	.54	.38
AC-FT	2,490	3,790	2,670	3,680	2,560	1,950	11,610	45,090	30,010	6,660	1,410	982

CAL YR 1968: TOTAL 43,891.9 MEAN 120 MAX 900 MIN 6.9 CFSM 2.45 IN 33.38 AC-FT 87,060
WTR YR 1969: TOTAL 56,923.9 MEAN 156 MAX 1,100 MIN 6.9 CFSM 3.19 IN 43.29 AC-FT 112,900

NOTE.--No gage-height record Jan. 26 to Mar. 26.

13-2410. Lake Fork Reservoir near McCall, Idaho

LOCATION.--Lat 44°54'10", long 116°02'20" (revised), in NW¼NW¼ sec.13, T.18 N., R.3 E., Valley County, at outlet gate near center of dam on Lake Fork Payette River, 3 miles east of McCall, and at mile 18.0.

DRAINAGE AREA.--64 sq mi, approximately.

PERIOD OF RECORD.--April 1926 to current year (fragmentary).

GAGE.--Nonrecording gage on concrete gate-control structure of dam. Datum of gage is at mean sea level (levels by Lake Irrigation District).

EXTREMES.--Current year: Maximum contents observed, 20,400 acre-ft June 28 to July 1; maximum elevation observed, 5,119.18 ft June 29; minimum contents observed, 613 acre-ft (elevation, 5,102.27 ft).

Period of record: Maximum contents observed, 21,060 acre-ft June 21, 1961 (elevation, 5,119.56 ft); no storage above elevation 5,101.0 ft for long periods during fall and winter of most years. Minimum elevation observed below 5,101.0 ft, 5,099.04 ft Dec. 9, 1936.

REMARKS.--Reservoir is formed by earth- and rock-fill dam completed in 1926. Capacity, 16,940 acre-ft between elevations 5,101.0 ft (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 open prevents withdrawal of storage to elevation of sill of gates. No observations were reported below 5,101.0 ft during current year.

COOPERATION.--Elevation record and capacity table furnished by Lake Irrigation District.

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

5,102.0	480	5,112.0	9,380
5,104.0	1,500	5,116.0	15,400
5,106.0	2,810	5,119.0	20,100
5,108.0	4,550	5,119.2	20,500
5,110.0	6,770		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								-	16,600	20,400	14,700	4,190
2								-	16,500	20,300	14,400	3,990
3	1,650	613						-	16,700	20,300	14,000	3,800
4								-	17,100	20,300	13,700	3,580
5								-	17,500	20,300	13,100	3,400
6								7,080	17,900	20,300	12,900	3,230
7								-	18,000	20,100	12,600	3,050
8								-	17,900	19,900	12,200	2,870
9								-	17,900	19,800	11,900	2,710
10								-	17,900	19,600	11,500	2,570
11								-	18,000	19,400	11,000	2,400
12								-	17,900	19,200	10,600	2,330
13								-	18,200	19,000	10,200	2,230
14								-	18,500	18,900	9,780	-
15								-	18,800	18,600	9,380	-
16								14,900	19,000	18,300	9,000	-
17								-	19,200	18,000	8,600	-
18								-	19,300	17,800	8,110	-
19								15,300	19,400	17,500	7,800	-
20								15,700	19,200	17,300	7,630	-
21								15,500	19,000	17,000	7,370	-
22								15,300	19,100	16,800	7,050	-
23								15,200	19,200	16,600	6,540	-
24								15,400	19,800	16,500	6,300	-
25								15,800	20,100	16,400	6,120	-
26								16,000	20,300	16,300	5,790	-
27								16,100	20,300	16,100	5,530	-
28								15,900	20,400	15,900	5,200	-
29							4,840	15,400	20,400	15,700	4,910	-
30								15,500	20,400	15,400	4,630	-
31								16,300	-----	15,000	4,400	-----
(†)	-	-	-	-	-	-	-	5,116.62	5,119.16	5,115.78	5,107.84	-
(‡)	-	-	-	-	-	-	-	-	+14,100	-5,400	-10,600	-
MAX	-	-	-	-	-	-	-	16,300	20,400	20,400	14,700	4,190
MIN	-	-	-	-	-	-	-	-	16,500	15,000	4,400	-

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

PAYETTE RIVER BASIN

13-2420. Lake Irrigation District Canal near McCall, Idaho

LOCATION.--Lat 44°53'50", long 116°02'20" (revised), in SW¼ sec.13, T.18 N., R.3 E., Valley County, on right bank 600 ft downstream from head of canal, 0.5 mile south of Lake Fork Reservoir, and 3 miles southeast of McCall.

PERIOD OF RECORD.--May 1926 to current year (irrigation seasons only 1927-34, 1942-46).

GAGE.--Nonrecording gage. Altitude of gage is 5,090 ft (from topographic map). Prior to May 1947, at different datum.

EXTREMES.--Period of record: Maximum daily discharge, 213 cfs June 14, 1965; no flow or small amount of leakage through headgate during nonirrigation seasons.

REMARKS.--Records good. 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.

COOPERATION.--Gage readings furnished by Lake Irrigation District.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	0	0	0	0	0	0	0	129	131	139	63
2	20	0	0	0	0	0	0	0	138	126	146	63
3	20	0	0	0	0	0	0	0	141	126	146	61
4	20	0	0	0	0	0	0	0	150	126	146	56
5	20	0	0	0	0	0	0	0	160	126	140	55
6	20	0	0	0	0	0	0	0	166	129	135	53
7	20	0	0	0	0	0	0	0	169	134	132	53
8	20	0	0	0	0	0	0	0	167	134	135	45
9	20	0	0	0	0	0	0	0	162	127	142	45
10	20	0	0	0	0	0	0	0	166	128	146	44
11	20	0	0	0	0	0	0	0	174	135	146	44
12	20	0	0	0	0	0	0	0	180	127	146	40
13	20	0	0	0	0	0	0	0	178	128	144	39
14	20	0	0	0	0	0	0	0	180	129	142	39
15	20	0	0	0	0	0	0	0	190	118	144	39
16	20	0	0	0	0	0	0	3.1	192	118	144	42
17	20	0	0	0	0	0	0	6.8	197	121	135	45
18	20	0	0	0	0	0	0	6.8	201	127	128	45
19	20	0	0	0	0	0	0	17	201	122	108	45
20	20	0	0	0	0	0	0	23	199	122	100	45
21	7.5	0	0	0	0	0	0	29	199	122	97	45
22	0	0	0	0	0	0	0	29	199	129	100	45
23	0	0	0	0	0	0	0	45	194	136	100	45
24	0	0	0	0	0	0	0	59	159	141	101	45
25	0	0	0	0	0	0	0	71	146	144	101	45
26	0	0	0	0	0	0	0	92	139	144	93	45
27	0	0	0	0	0	0	0	96	139	151	98	45
28	0	0	0	0	0	0	0	102	134	149	98	45
29	0	0	0	0	-----	0	0	115	126	157	88	45
30	0	0	0	0	-----	0	0	119	117	148	86	45
31	0	-----	0	0	-----	0	-----	127	-----	143	74	-----
TOTAL	407.5	0	0	0	0	0	0	939.7	4,992	4,097	3,780	1,411
MEAN	13.1	0	0	0	0	0	0	30.3	166	132	122	47.0
MAX	20	0	0	0	0	0	0	127	201	157	146	63
MIN	0	0	0	0	0	0	0	0	117	118	74	39
AC-FT	808	0	0	0	0	0	0	1,860	9,900	8,130	7,500	2,800
CAL YR 1968: TOTAL 15,841.50 MEAN 43.3 MAX 197 MIN 0 AC-FT 31,420												
WTR YR 1969: TOTAL 15,627.20 MEAN 42.8 MAX 201 MIN 0 AC-FT 31,000												

NOTE.--No gage-height record Oct. 1 to May 15.

13-2425. Lake Fork Payette River below Lake Irrigation District Canal, near McCall, Idaho

LOCATION.--Lat 44°53'40", long 116°02'20" (revised), in SW¼ sec.13, T.18 N., R.3 E., Valley County, on right bank 300 ft downstream from diversion dam for Lake Irrigation District Canal, 0.5 mile downstream from Lake Fork Reservoir, 3 miles southeast of McCall, and at mile 17.5.

DRAINAGE AREA.--64 sq mi, approximately.

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,080 ft (from topographic map).

AVERAGE DISCHARGE.--29 years, 125 cfs (90,560 acre-ft per year); 15-year base period (1952-67), 120 cfs.

EXTREMES.--Current year: Maximum discharge, 917 cfs May 27 (gage height, 5.60 ft); minimum, 0.78 cfs Oct. 28, 29 (gage height, 1.88 ft).

Period of record: Maximum discharge, 2,120 cfs June 3, 1948 (gage height, 7.09 ft), from rating curve extended above 1,200 cfs; minimum, 0.4 cfs Mar. 27, 28, 1944; minimum gage height, 1.76 ft Mar. 28, 1944.

REMARKS.--Records good. Flow regulated by McDowell Reservoir (capacity about 600 acre-ft) and by Lake Fork Reservoir (see sta 13-2410) Lake Irrigation District Canal (see sta 13-2420) diverts above station for irrigation of about 6,800 acres of land near McCall and Norwood.

REVISIONS (WATER YEARS).--WSP 963: 1941.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 21, 30, Jan. 24, Feb. 4, 8, 14, 17-20, 27-28.
Mar. 2, 4, 7-16, 20-22, 24-26)

1.9	0.9	2.6	27	4.0	282
2.0	2.2	3.0	70	5.0	641
2.1	4.2	3.5	157	6.0	1,090
2.3	10				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	5.0	74	50	73	41	46	185	617	103	80	44
2	101	5.0	73	49	70	40	53	185	581	88	82	44
3	98	5.3	70	48	69	40	62	185	522	82	80	50
4	110	5.3	70	48	66	39	69	187	569	80	80	49
5	111	5.3	70	48	63	40	77	187	645	76	82	47
6	104	5.3	66	50	60	40	91	190	700	73	71	47
7	95	5.0	64	60	59	38	108	194	717	70	59	46
8	87	100	63	71	58	37	115	201	670	83	53	48
9	77	170	62	76	57	34	120	211	633	88	57	49
10	67	155	62	79	55	33	128	218	507	90	76	48
11	67	143	62	79	54	31	137	248	425	88	73	41
12	69	141	60	79	55	32	145	347	291	90	67	25
13	69	139	59	82	54	33	157	466	161	91	67	23
14	67	147	57	87	52	34	174	593	111	90	64	22
15	63	145	57	88	50	34	180	712	110	101	62	23
16	64	135	59	87	49	34	185	751	108	99	60	22
17	64	122	57	85	48	34	192	729	108	82	63	19
18	59	106	57	83	47	35	201	743	79	85	62	19
19	62	95	56	83	45	35	211	813	63	88	54	19
20	54	90	55	83	44	34	211	880	66	83	50	19
21	64	87	54	88	44	34	176	849	63	82	51	19
22	67	87	51	88	44	34	147	804	63	80	53	19
23	33	87	53	87	44	34	153	782	67	83	51	23
24	6.7	87	54	84	44	34	163	800	69	87	49	24
25	6.7	82	55	80	44	34	170	858	96	85	54	24
26	6.7	85	55	80	44	35	174	890	115	83	53	24
27	6.7	83	54	82	42	35	176	908	126	83	49	23
28	2.1	80	56	80	41	36	178	840	135	80	54	23
29	33	77	53	77	-----	37	180	658	133	80	50	23
30	101	77	52	76	-----	38	183	545	120	80	46	23
31	50	-----	50	74	-----	41	-----	601	-----	77	46	-----
TOTAL	1,968.9	2,556.2	1,840	2,311	1,475	1,110	4,362	16,760	8,670	2,630	1,898	929
MEAN	63.5	85.2	59.4	74.5	52.7	35.8	145	541	289	84.8	61.2	31.0
MAX	111	170	74	88	73	41	211	908	717	103	82	50
MIN	2.1	5.0	50	48	41	31	46	185	63	70	46	19
AC-FT	3,910	5,070	3,650	4,580	2,930	2,200	8,650	33,240	17,200	5,220	3,760	1,840

CAL YR 1968: TOTAL 34,101.8 MEAN 93.2 MAX 867 MIN 2.1 AC-FT 67,640
WTR YR 1969: TOTAL 46,510.1 MEAN 127 MAX 908 MIN 2.1 AC-FT 92,250

LOCATION.--Lat 44°41'18", long 116°00'02", in SE¼SW¼ sec.29, T.16 N., R.4 E., Valley County, on left bank 350 ft upstream from county road bridge, 1 mile downstream from Gold Fork Dam, 4 miles southeast of Roseberry, and at mile 7.7.

PERIOD OF RECORD.--August 1920 to September 1921 (fragmentary, published as Gold Fork Payette River near Roseberry), October 1961 to current year.

AVERAGE DISCHARGE.--Combined discharge of Gold Fork River and Canal: 8 years (1962-69), 227 cfs (164,500 acre-ft per year).

Period of record: Maximum discharge observed, 2,260 cfs May 30, 1921 (gage height, 5.50 ft, site and datum then in use); minimum, 1.3 cfs Sept. 6, 1965, Aug. 30, 31, Sept. 1, 1966.

(Combined flow).--Current year: Maximum daily discharge, 1,690 cfs May 19; minimum daily, 47 cfs Sept. 15, 17.

Period of record: Maximum daily discharge, 1,710 cfs June 12, 1965; minimum daily, 38 cfs Sept. 25, 30, Oct. 1, Nov. 9, 1966.

REMARKS.--Records good except those for December to March, which are poor. Figures of daily discharge do not include discharge in the Gold Fork Canal, which diverts 1 mile above station. Records of daily discharge for Gold Fork Canal are on file in the office of the Geological Survey, Boise, Idaho.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 26 to Mar. 19)

0.8	0.6	1.4	20	3.0	323
.9	1.6	1.6	35	4.0	687
1.0	3.3	1.8	56	5.0	1,160
1.1	5.9	2.0	84	6.0	1,700
1.2	9.7	2.5	186		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	79	92	78	82	80	150	473	1,160	299	2.8	1.5
2	50	76	92	77	84	80	170	455	1,050	276	2.6	1.4
3	47	82	98	74	84	80	205	448	1,020	250	2.5	1.4
4	46	89	100	77	81	80	222	469	1,080	234	2.3	1.4
5	45	76	100	86	83	80	250	547	1,150	216	2.3	1.5
6	45	69	90	105	83	80	314	633	1,190	198	2.1	1.5
7	45	79	85	120	82	80	296	775	1,100	176	1.8	1.5
8	45	75	88	105	82	80	273	945	1,000	160	1.6	1.5
9	45	105	88	96	81	77	290	1,100	940	141	1.6	1.5
10	46	97	88	93	81	72	332	1,260	930	120	1.6	1.5
11	47	100	88	92	81	72	345	1,380	800	105	1.6	2.3
12	79	253	84	92	81	74	380	1,440	700	90	1.6	5.9
13	118	162	74	108	81	78	434	1,480	600	75	1.6	7.0
14	84	105	80	105	78	81	427	1,630	550	69	1.6	6.3
15	78	146	82	105	83	82	420	1,610	500	60	1.6	10
16	75	124	82	95	81	82	420	1,390	450	54	1.6	15
17	71	131	76	95	78	86	452	1,400	396	45	1.6	18
18	69	116	76	95	77	86	524	1,490	367	39	1.6	21
19	67	116	74	100	76	83	480	1,690	360	35	1.6	23
20	71	111	60	110	78	80	441	1,590	360	32	1.8	46
21	72	105	60	115	80	82	462	1,340	314	25	1.8	45
22	68	124	64	120	81	82	589	1,300	276	20	1.8	32
23	67	118	76	100	82	84	726	1,380	314	15	1.8	34
24	68	109	82	80	81	85	744	1,520	613	12	1.8	53
25	69	107	80	80	80	89	621	1,580	487	11	1.8	50
26	72	100	78	82	80	95	558	1,600	413	8.6	1.8	44
27	69	100	76	84	80	99	528	1,520	417	5.4	1.8	42
28	68	100	74	84	80	104	532	1,240	410	3.8	1.8	45
29	69	100	68	81	-----	110	539	1,140	367	3.6	1.5	42
30	97	100	60	81	-----	120	498	1,350	329	3.3	1.5	50
31	87	-----	63	81	-----	140	-----	1,330	-----	3.1	1.5	-----
TOTAL	2,028	3,254	2,478	2,896	2,261	2,683	12,622	37,505	19,643	2,784.8	56.3	606.2
MEAN	65.4	108	79.9	93.4	80.8	86.5	421	1,210	655	89.8	1.82	20.2
MAX	118	253	100	120	84	140	744	1,690	1,190	299	2.8	53
MIN	45	69	60	74	76	72	150	448	276	3.1	1.5	1.4
AC-FT	4,020	6,450	4,920	5,740	4,480	5,320	25,040	74,390	38,960	5,520	112	1,200
ADJUSTED FOR DIVERSION IN GOLD FORK CANAL												
MEAN	75.8	112	79.9	93.4	80.8	86.5	421	1,215	731	175	66.9	

13-2445. Cascade Reservoir at Cascade, Idaho

LOCATION.--Lat 44°31'30", long 116°03'00", in NE¼NE¼ sec.26, T.14 N., R.3 E., Valley County, in gate-control structure at south end of Cascade Dam on North Fork Payette River, 0.5 mile downstream from Willow Creek, 0.8 mile northwest of Cascade, and at mile 39.9.

DRAINAGE AREA.--620 sq mi. Mean altitude, 5,960 ft.

PERIOD OF RECORD.--January to December 1948 (fragmentary), January 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Datum of gage is 0.66 ft below mean sea level, datum of 1929, supplementary adjustment of 1961. Prior to Nov. 7, 1958, nonrecording gage at north end of dam at same datum.

EXTREMES.--Current year: Maximum contents, 706,600 acre-ft June 24 (elevation, 4,828.13 ft); minimum, 254,100 acre-ft Apr. 4 (elevation, 4,806.36 ft).
Period of record: 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 ft (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.

COOPERATION.--Capacity table furnished by Bureau of Reclamation.

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

4,806.0	248,600	4,820.0	508,500
4,810.0	313,500	4,829.0	730,000

CONTENTS, IN ACRE-FT, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	388,200	363,400	396,300	392,500	-	357,200	254,500	368,800	623,800	701,300	646,900	527,700
2	384,800	363,800	397,100	392,300	-	354,000	254,400	372,000	632,300	701,300	643,900	523,600
3	381,600	364,700	397,500	392,300	-	350,600	254,400	375,300	640,100	700,300	640,600	518,500
4	378,500	364,900	398,500	391,500	-	347,200	254,400	378,200	648,200	700,000	637,300	513,600
5	375,300	365,300	399,200	391,100	-	343,900	255,500	381,800	656,900	700,000	633,300	508,500
6	372,900	365,500	399,400	391,100	-	340,600	257,200	385,400	666,100	699,500	630,000	503,000
7	369,600	365,800	398,800	393,000	-	337,000	258,400	389,400	674,600	699,500	626,500	498,200
8	366,200	367,000	399,600	393,600	-	333,500	259,400	394,200	683,700	699,700	622,500	493,400
9	362,700	368,800	398,500	393,800	-	330,000	260,900	400,200	691,800	699,500	619,300	488,200
10	359,400	369,200	400,600	393,800	-	326,700	263,000	406,700	696,100	698,700	615,400	483,500
11	356,300	370,900	400,400	394,600	-	323,300	265,800	413,900	698,400	698,200	612,600	478,800
12	357,100	375,300	399,800	395,000	-	319,700	270,200	421,900	699,700	696,300	608,000	474,700
13	356,700	377,200	399,000	397,100	-	316,100	275,900	430,600	699,500	694,700	604,800	470,700
14	356,700	377,800	398,100	399,000	-	312,300	281,000	440,900	699,200	693,200	601,400	465,000
15	358,000	379,500	397,700	400,400	-	309,200	286,300	451,500	699,200	691,300	598,200	460,600
16	358,100	379,900	397,700	401,800	-	305,500	291,700	462,000	699,700	689,200	594,500	456,000
17	358,300	380,800	397,700	402,700	-	302,100	297,900	472,600	700,000	687,400	590,400	451,500
18	358,700	382,500	397,900	403,100	-	299,600	304,600	483,000	700,500	685,300	586,800	446,800
19	358,700	383,100	397,300	405,500	390,900	295,900	310,600	493,800	701,900	683,200	583,000	443,200
20	359,600	384,000	396,100	408,200	386,700	292,400	315,700	505,600	702,400	680,900	578,900	440,100
21	359,800	384,800	394,400	411,200	383,100	288,700	321,300	515,800	702,400	678,800	574,400	436,100
22	360,000	386,900	392,800	412,800	380,100	285,500	327,400	525,400	701,900	676,200	570,600	432,000
23	360,200	388,000	393,200	413,900	376,900	281,700	333,900	535,600	704,500	673,600	566,600	429,000
24	360,500	389,400	394,800	414,300	373,800	278,300	340,400	545,700	705,600	670,700	562,800	425,200
25	360,700	390,700	395,500	-	370,300	274,700	345,000	555,800	705,600	668,200	557,900	421,900
26	361,100	391,700	395,900	-	367,000	271,000	348,900	556,800	703,500	664,800	554,200	418,100
27	361,200	392,700	396,900	-	364,200	267,700	353,300	578,200	702,700	661,200	549,800	415,100
28	361,600	393,600	397,100	-	360,200	264,200	358,000	587,800	701,900	658,900	545,700	411,400
29	361,800	393,400	396,300	-	-----	260,900	361,600	597,200	701,900	656,100	540,400	408,200
30	362,700	395,500	395,000	-	-----	257,600	365,500	607,000	702,100	652,800	536,100	404,300
31	363,300	-----	393,200	418,300	-----	255,300	-----	615,600	-----	649,500	531,800	-----
(†)	4,812.81	4,814.52	4,814.40	4,815.68	4,812.64	4,806.44	4,812.93	4,824.58	4,827.96	4,825.93	4,821.04	4,814.97
(‡)	-28,000	+32,200	-2,300	+25,100	-58,100	-104,900	+110,200	+250,100	+86,500	-52,600	-117,700	-127,500
MAX	388,200	395,500	400,600	418,300	-	357,200	365,500	615,600	705,600	701,300	646,900	527,700
MIN	356,300	363,400	392,800	391,100	360,200	255,300	254,400	368,800	623,800	649,500	531,800	404,300

CAL YR 1968..... † +10,900

WTR YR 1969..... † +13,000

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

PAYETTE RIVER BASIN

13-2450. North Fork Payette River at Cascade, Idaho

LOCATION.--Lat 44°30'44", long 116°01'52", in NE¼NE¼ sec.36, T.14 N., R.3 E., Valley County, 0.5 mile upstream from Beaver Creek, 1.6 miles downstream from Cascade Dam, and at mile 38.3.

DRAINAGE AREA.--626 sq mi. Mean altitude, 5,960 ft.

PERIOD OF RECORD.--May 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,730 ft (from topographic map). Prior to Jan. 28, 1947, non-recording gages at present or nearby sites at present datum. Nov. 6, 1958, to Sept. 30, 1965, water-stage recorder at site 1.5 miles upstream at datum 4,734.59 ft above mean sea level (used as supplementary gage Oct. 1, 1965, to current year). Nov. 6, 1958, to Sept. 30, 1965, present gage used as supplementary gage.

AVERAGE DISCHARGE.--28 years, 1,015 cfs (735,400 acre-ft per year); 15-year base period (1952-67), 993 cfs.

EXTREMES.--Current year: Maximum discharge, 3,400 cfs June 12 (gage height, 3.72 ft); minimum, 129 cfs Jan. 21 (gage height, 0.95 ft).
Period of record: Maximum discharge, 7,320 cfs May 10, 1947 (gage height, 6.29 ft); minimum, 2 cfs or less in January 1948 when stage was below intake.

REMARKS.--Records good. Flow regulated by Payette Lake beginning May 1941 (see sta 13-2385), Lake Fork Reservoir beginning May 1941 (see sta 13-2410), and Cascade Reservoir 1.6 miles upstream beginning November 1947 (see sta 13-2445). Diversions for irrigation of about 37,000 acres above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-7, Jan. 22 to Mar. 31)

0.8	111	2.0	900
1.0	175	3.0	2,250
1.5	441	3.6	3,160

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,100	172	170	924	760	2,090	1,080	207	428	924	1,700	2,130
2	2,100	172	170	524	760	2,090	1,090	211	441	1,120	1,820	2,280
3	2,030	170	170	566	760	2,040	1,100	211	449	1,060	1,790	2,490
4	1,970	170	260	663	720	2,030	1,130	211	449	867	1,800	2,640
5	2,000	170	395	654	663	2,040	1,140	215	449	812	1,890	2,760
6	1,980	170	400	509	681	2,060	1,150	215	464	608	1,970	2,850
7	1,940	170	400	256	790	2,040	1,140	220	471	558	2,000	2,750
8	2,030	170	400	207	889	2,040	1,140	224	471	456	2,030	2,750
9	2,100	170	425	464	960	2,040	1,160	224	750	617	2,030	2,840
10	2,070	170	465	541	1,060	2,010	1,190	220	1,720	845	2,030	2,760
11	1,740	170	465	408	1,180	1,940	900	224	2,670	984	2,070	2,720
12	1,160	170	506	408	1,270	1,920	220	224	3,000	1,090	2,040	2,630
13	1,070	170	700	247	1,390	2,010	233	224	3,030	1,210	1,980	2,630
14	635	170	1,020	138	1,490	1,950	220	224	2,820	1,210	1,970	2,730
15	151	170	1,040	138	1,590	1,890	224	224	2,180	1,240	1,970	2,690
16	138	170	645	138	1,730	2,070	229	229	1,620	1,310	1,970	2,610
17	138	170	524	233	1,860	2,060	215	229	1,150	1,270	2,030	2,570
18	141	170	710	314	2,000	2,060	224	233	533	1,200	2,030	2,570
19	144	170	812	298	2,090	2,090	203	233	449	1,350	2,030	2,540
20	144	170	1,020	132	2,090	2,090	191	238	558	1,400	2,070	2,420
21	148	170	1,150	138	2,070	2,060	191	238	558	1,400	2,090	2,340
22	148	170	1,150	135	2,090	2,060	191	238	558	1,440	2,120	2,280
23	155	170	591	295	2,090	2,040	195	247	558	1,550	2,120	2,240
24	155	170	203	434	2,070	2,060	207	247	1,330	1,620	2,150	2,210
25	155	170	362	494	2,060	2,060	195	247	2,760	1,660	2,130	2,190
26	158	170	362	494	2,060	2,060	195	247	2,900	1,720	2,130	2,160
27	158	170	421	501	2,070	2,060	195	252	2,100	1,700	2,090	2,130
28	161	170	635	501	2,070	2,040	199	288	1,550	1,690	2,090	2,100
29	168	170	878	591	-----	2,040	199	414	1,140	1,670	2,090	2,120
30	168	170	1,180	672	-----	2,040	203	428	750	1,670	2,130	2,100
31	172	-----	1,290	710	-----	1,880	-----	428	-----	1,690	2,130	-----
TOTAL	27,527	5,104	18,919	12,727	41,313	62,960	16,149	7,714	38,306	37,941	62,490	74,230
MEAN	888	170	610	411	1,475	2,031	538	249	1,277	1,224	2,016	2,474
MAX	2,100	172	1,290	924	2,090	2,090	1,190	428	3,030	1,720	2,150	2,850
MIN	138	170	170	132	663	1,880	191	207	428	456	1,700	2,100
AC-FT	54,600	10,120	37,530	25,240	81,940	124,900	32,030	15,300	75,980	75,250	123,900	147,200

CAL YR 1968: TOTAL 292,354 MEAN 799 MAX 2,640 MIN 138 AC-FT 579,900
WTR YR 1969: TOTAL 405,380 MEAN 1,111 MAX 3,030 MIN 132 AC-FT 804,100

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LOCATION.--Lat 44°06'50", long 116°06'25", in NW¼SE¼ sec.16, T.9 N., R.3 E., Boise County, on right bank 40 ft downstream from highway bridge, 2.5 miles north of Banks, and at mile 2.8.

PERIOD OF RECORD.--April 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,081.13 ft above mean sea level, unadjusted.

AVERAGE DISCHARGE.--22 years, 1,327 cfs (961,400 acre-ft per year); 15-year base period (1952-67), 1,299 cfs.

EXTREMES.--Current year: Maximum discharge, 3,590 cfs June 13 (gage height, 9.49 ft); minimum, 256 cfs Nov. 6, Dec. 2; minimum gage height, 4.17 ft Nov. 6.
Period of record: 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. 21, 1947 (gage height, 3.01 ft).

REMARKS.--Records good. Flow regulated by Payette Lake (see sta 13-2385), Lake Fork Reservoir (see sta 13-2410), and Cascade Reservoir 37.1 miles upstream, beginning November 1947 (see sta 13-2445). Diversions for irrigation of about 45,900 acres above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

4.2	251	6.0	915
4.5	333	8.0	2,150
5.0	496	9.5	3,510

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,140	275	289	1,310	999	2,190	1,950	1,120	1,350	1,060	1,680	2,140
2	2,120	267	286	922	1,060	2,210	1,610	1,070	1,270	1,270	1,760	2,180
3	2,080	286	292	734	1,060	2,210	1,730	1,030	1,280	1,280	1,790	2,410
4	2,010	293	296	812	1,040	2,170	1,800	1,030	1,310	1,120	1,790	2,600
5	1,990	277	416	882	998	2,200	2,000	1,100	1,340	1,040	1,840	2,740
6	2,000	263	550	914	983	2,220	2,320	1,190	1,340	896	1,930	2,910
7	1,970	265	532	749	1,010	2,210	2,370	1,300	1,300	795	1,970	2,850
8	1,960	275	557	439	1,110	2,220	2,210	1,440	1,240	687	2,020	2,780
9	2,080	373	556	489	1,180	2,230	2,310	1,560	1,430	666	2,020	2,850
10	2,070	347	621	760	1,270	2,230	2,480	1,670	1,790	813	2,020	2,860
11	2,010	326	648	719	1,410	2,170	2,490	1,740	2,690	953	2,070	2,780
12	1,540	488	636	665	1,520	2,110	1,930	1,760	3,120	1,050	2,080	2,700
13	1,260	471	574	737	1,600	2,180	1,970	1,770	3,470	1,140	2,030	2,650
14	1,220	354	889	536	1,670	2,220	1,820	1,920	3,510	1,190	2,010	2,730
15	536	328	1,110	475	1,790	2,090	1,790	1,990	2,960	1,190	2,000	2,750
16	355	327	1,060	391	1,910	2,220	1,850	1,770	2,250	1,260	1,980	2,710
17	310	313	662	399	2,000	2,260	1,810	1,660	1,790	1,290	2,020	2,620
18	294	320	735	549	2,120	2,290	2,130	1,640	1,240	1,200	2,030	2,610
19	283	334	830	605	2,210	2,290	1,810	1,700	822	1,240	2,020	2,630
20	289	333	965	583	2,230	2,300	1,550	1,670	877	1,360	2,050	2,560
21	292	331	1,160	563	2,220	2,290	1,440	1,560	920	1,380	2,050	2,450
22	280	369	1,190	597	2,210	2,290	1,550	1,440	863	1,370	2,080	2,390
23	276	388	1,170	511	2,210	2,270	1,790	1,440	873	1,450	2,090	2,310
24	273	346	485	655	2,200	2,280	1,980	1,460	1,210	1,540	2,090	2,280
25	271	337	458	870	2,190	2,290	1,680	1,500	2,720	1,600	2,090	2,260
26	270	310	561	942	2,180	2,300	1,410	1,490	3,320	1,670	2,100	2,230
27	265	308	508	882	2,170	2,320	1,280	1,460	2,800	1,690	2,130	2,200
28	263	302	596	855	2,180	2,330	1,240	1,330	2,160	1,690	2,130	2,150
29	262	281	867	837	-----	2,360	1,240	1,360	1,680	1,680	2,120	2,150
30	284	300	1,040	935	-----	2,410	1,170	1,500	1,210	1,670	2,140	2,160
31	282	-----	1,320	944	-----	2,490	-----	1,480	-----	1,680	2,150	-----
TOTAL	31,535	9,787	21,859	22,261	46,730	69,850	54,710	46,150	54,135	38,920	62,280	75,640
MEAN	1,017	326	705	718	1,669	2,253	1,824	1,489	1,805	1,255	2,009	2,521
MAX	2,140	488	1,320	1,310	2,230	2,490	2,490	1,990	3,510	1,690	2,150	2,910
MIN	262	263	286	391	983	2,090	1,170	1,030	822	666	1,680	2,140
AC-FT	62,550	19,410	43,360	44,150	92,690	138,500	108,500	91,540	107,400	77,200	123,500	150,000
CAL YR 1968 : TOTAL	365,700											
WTR YR 1969 : TOTAL	533,857											
			MEAN	999	MAX	2,700	MIN	262	AC-FT	725,400		
			MEAN	1,463	MAX	3,510	MIN	533	AC-FT	1,059,000		

PAYETTE RIVER BASIN

13-2475. Payette River near Horseshoe Bend, Idaho

LOCATION.--Lat 43°56'33", long 116°11'45", in NE¼SE¼ sec.15, T.7 N., R.2 E., Boise County, on left bank 300 ft upstream from bridge on State Highway 55, 0.5 mile downstream from Porter Creek, 2 miles north of Horseshoe Bend, and at mile 60.7.

DRAINAGE AREA.--2,230 sq mi, approximately. Mean altitude, 5,850 ft.

PERIOD OF RECORD.--February 1906 to September 1916, July 1919 to current year. 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, nonrecording gage at site 1.8 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.--60 years, 3,203 cfs (2,321,000 acre-ft per year); 15-year base period 1952-67), 3,320 cfs.

EXTREMES.--Current year: Maximum discharge, 12,000 cfs May 14 (gage height, 11.42 ft); minimum, 897 cfs Nov. 7 (gage height, 2.91 ft).

Period of record: Maximum discharge, 27,000 cfs Dec. 23, 1964 (gage height, 16.35 ft); minimum, 350 cfs Dec. 17, 1935 (gage height, 0.26 ft, site and datum then in use), from rating curve extended below 600 cfs.

REMARKS.--Records excellent. Flow regulated by Payette Lake beginning about 1921 (see sta 13-2385), Lake Fork Reservoir beginning April 1926 (see sta 13-2410), Deadwood Reservoir beginning November 1930 (see sta 13-2360), and Cascade Reservoir 51.9 miles upstream, beginning November 1947 (see sta 13-2445). Diversions from tributaries above station for irrigation of about 50,000 acres.

REVISIONS.--WSP 533: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 21, Jan. 29-30)

3.0	920	8.0	5,260
4.0	1,380	10.0	8,670
6.0	2,870	11.3	11,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,800	984	1,070	2,090	2,060	3,050	5,530	5,670	8,220	3,580	3,530	3,560
2	2,760	964	1,030	1,740	2,140	3,070	5,250	5,510	7,740	3,690	3,570	3,570
3	2,730	984	1,040	1,430	2,060	3,100	5,790	5,460	7,690	3,810	3,590	3,620
4	2,650	1,040	1,050	1,480	1,960	3,060	5,640	5,450	7,970	3,920	3,560	3,620
5	2,600	1,000	1,170	1,610	1,920	3,110	6,210	5,890	8,420	3,900	3,570	3,580
6	2,600	944	1,310	1,800	1,910	3,160	7,190	6,600	8,550	3,770	3,640	3,560
7	2,570	920	1,180	1,770	1,910	3,110	7,410	7,420	8,290	3,840	3,680	3,410
8	2,540	956	1,260	1,450	1,960	3,120	6,400	8,430	7,770	3,640	3,700	3,330
9	2,650	1,220	1,290	1,300	2,050	3,080	6,300	9,320	7,870	3,470	3,690	3,370
10	2,660	1,310	1,330	1,560	2,140	3,080	6,820	10,100	7,820	3,530	3,670	3,400
11	2,630	1,150	1,410	1,570	2,260	3,000	6,850	10,600	8,350	3,650	3,700	3,350
12	2,300	1,670	1,380	1,480	2,390	2,950	6,480	10,800	8,320	3,720	3,730	3,280
13	2,190	1,810	1,190	1,750	2,500	3,020	6,710	10,600	8,270	3,790	3,670	3,230
14	2,100	1,400	1,350	1,960	2,490	3,100	6,540	11,500	7,920	3,800	3,620	3,270
15	1,540	1,220	1,790	1,740	2,650	3,020	6,250	11,600	7,000	3,730	3,590	3,280
16	1,210	1,240	1,910	1,490	2,750	3,140	6,210	10,400	6,190	3,740	3,560	3,250
17	1,100	1,180	1,440	1,410	2,840	3,230	6,330	9,630	5,550	3,730	3,580	3,160
18	1,060	1,160	1,400	1,430	2,930	3,390	7,210	9,700	4,930	3,610	3,580	3,130
19	1,040	1,230	1,520	1,660	3,020	3,430	6,950	10,100	4,420	3,570	3,560	3,180
20	1,020	1,180	1,560	1,750	3,060	3,410	6,220	9,810	4,430	3,630	3,570	3,210
21	1,090	1,170	1,540	2,630	3,110	3,430	5,970	8,910	4,400	3,620	3,560	3,180
22	1,030	1,240	1,650	3,340	3,100	3,540	6,770	8,390	4,190	3,570	3,580	3,020
23	1,010	1,420	1,930	2,410	3,090	3,650	8,240	8,530	4,080	3,590	3,590	2,930
24	1,000	1,290	1,390	2,020	3,100	3,600	9,150	9,140	5,050	3,630	3,580	2,920
25	1,000	1,280	1,230	2,230	3,080	3,630	7,740	9,850	6,220	3,650	3,570	2,890
26	996	1,180	1,360	2,490	3,050	3,750	6,580	10,300	6,530	3,690	3,570	2,840
27	988	1,130	1,280	2,310	3,000	4,050	5,850	10,200	5,950	3,680	3,590	2,800
28	968	1,110	1,250	2,110	3,010	4,150	5,590	9,180	5,210	3,650	3,590	2,750
29	964	1,010	1,470	1,940	-----	4,430	5,740	8,510	4,520	3,620	3,560	2,730
30	984	1,100	1,670	1,990	-----	4,870	5,710	8,390	3,970	3,580	3,580	2,740
31	1,010	-----	1,920	2,050	-----	5,620	-----	8,780	-----	3,560	3,590	-----
TOTAL	53,790	35,492	43,370	57,990	71,540	107,350	195,630	274,770	195,840	113,960	111,720	96,160
MEAN	1,735	1,183	1,399	1,871	2,555	3,463	6,521	8,864	6,528	3,676	3,604	3,205
MAX	2,800	1,810	1,930	3,340	3,110	5,620	9,150	11,600	8,550	3,920	3,730	3,620
MIN	964	920	1,030	1,300	1,910	2,950	5,250	5,450	3,970	3,470	3,530	2,730
AC-FT	106,700	70,400	86,020	115,000	141,900	212,900	388,000	545,000	388,400	226,000	221,600	190,700

CAL YR 1968 : TOTAL 911,122 MEAN 2,489 MAX 5,380 MIN 920 AC-FT 1,807,000
WTR YR 1969 : TOTAL 1,357,612 MEAN 3,719 MAX 11,600 MIN 920 AC-FT 2,693,000

13-2495. Payette River near Emmett, Idaho

LOCATION.--Lat 43°55'50", long 116°26'30", in SW¼NE¼ sec.22, T.7 N., R.1 W., Gem County, on right bank 0.3 mile downstream from Black Canyon Dam, 5 miles northeast of Emmett, and at mile 38.4.

DRAINAGE AREA.--2,680 sq mi, approximately.

PERIOD OF RECORD.--June 1925 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,400 ft (from topographic map).

AVERAGE DISCHARGE.--44 years, 2,939 cfs (2,129,000 acre-ft per year); 15-year base period (1952-67), 2,916 cfs.

EXTREMES.--Current year: Maximum discharge, 12,800 cfs May 15 (gage height, 9.27 ft); minimum, 173 cfs Oct. 17 (gage height, 0.86 ft); minimum daily, 950 cfs Nov. 7.

Period of record: Maximum discharge, 32,700 cfs Dec. 23, 1964 (gage height, 15.88 ft); minimum daily discharge, 0.7 cfs Jan. 7, 1957 (gage height, -1.49 ft), when gates in dam were closed.

REMARKS.--Records excellent. Flow regulated by Payette Lake (see sta 13-2385), Lake Fork Reservoir beginning April 1926 (see sta 13-2410), Deadwood Reservoir beginning November 1930 (see sta 13-2360), Cascade Reservoir beginning November 1947 (see sta 13-2445), and to some extent by Black Canyon Dam 0.3 mile upstream where flow is regulated by diversion and gate operation at dam. Diversions above station for irrigation of about 135,000 acres (1952 determination), of which about 79,000 acres are below station.

REVISIONS (WATER YEARS).--WSP 1153: 1946(m), 1948(m).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.3	890	6.0	5,860
3.0	1,630	8.0	9,800
4.0	2,830	8.9	12,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,850	1,040	1,290	2,280	2,410	3,380	6,740	4,990	7,480	2,320	2,000	2,070
2	1,810	1,020	1,190	2,200	2,610	3,420	6,170	4,590	6,860	2,330	2,010	2,050
3	1,780	1,050	1,190	1,770	2,510	3,450	6,820	4,450	6,730	2,430	2,070	2,110
4	1,700	1,120	1,220	1,730	2,370	3,440	6,480	4,440	7,080	2,540	2,030	2,130
5	1,640	1,100	1,340	1,920	2,320	3,540	7,260	4,890	7,620	2,500	2,020	2,100
6	1,650	1,020	1,640	2,200	2,330	3,550	8,620	5,610	7,870	2,380	2,110	2,130
7	1,630	950	1,450	2,460	2,290	3,620	9,120	6,590	7,600	2,390	2,140	2,040
8	1,610	1,040	1,440	2,080	2,260	3,590	7,680	7,830	7,040	2,210	2,150	1,980
9	1,740	1,270	1,440	1,730	2,410	3,560	7,280	8,850	7,070	1,950	2,160	2,050
10	1,840	1,520	1,440	1,760	2,390	3,470	7,750	9,690	6,910	1,980	2,130	2,090
11	1,830	1,270	1,390	1,980	2,450	3,350	7,790	10,300	7,460	2,110	2,140	2,050
12	1,820	1,700	1,660	1,840	2,920	3,220	7,430	10,600	7,460	2,170	2,180	2,010
13	2,190	2,200	1,450	2,790	2,920	3,050	7,610	10,400	7,340	2,230	2,140	1,960
14	2,310	1,640	1,390	3,550	2,710	2,990	7,410	11,400	7,050	2,260	2,080	1,980
15	2,020	1,400	1,730	2,750	3,060	3,210	7,020	12,000	6,080	2,180	2,050	2,090
16	1,470	1,430	2,160	2,080	3,160	3,430	6,860	10,400	5,100	2,160	1,990	2,100
17	1,080	1,320	1,780	1,910	3,230	3,630	6,880	9,390	4,390	2,170	2,020	2,030
18	1,030	1,320	1,520	1,840	3,290	4,010	7,850	9,310	3,700	2,040	2,040	2,000
19	1,030	1,490	1,550	2,670	3,360	4,120	7,790	9,730	3,120	1,950	2,020	2,130
20	1,040	1,380	1,530	3,690	3,430	3,970	6,730	9,480	3,070	2,030	2,020	2,160
21	1,100	1,360	1,580	5,750	3,470	4,000	6,080	8,590	3,070	2,030	2,050	2,160
22	1,090	1,370	1,740	6,130	3,470	4,100	6,730	7,780	2,840	1,980	2,050	2,040
23	1,110	1,630	2,170	4,010	3,470	4,360	8,410	7,880	2,730	2,000	2,080	1,990
24	1,050	1,510	2,280	2,820	3,470	4,200	9,650	8,420	3,860	2,050	2,040	2,010
25	1,030	1,590	1,990	2,790	3,470	4,200	8,190	9,210	5,090	2,100	2,030	1,970
26	1,050	1,430	2,020	4,040	3,430	4,360	6,580	9,650	5,440	2,130	2,030	1,960
27	1,050	1,310	1,720	3,340	3,340	4,780	5,630	9,610	4,910	2,150	2,050	1,970
28	1,020	1,320	1,600	2,880	3,350	4,650	5,140	8,560	4,020	2,130	2,070	1,910
29	1,010	1,170	1,550	2,600	-----	4,890	5,170	7,690	3,260	2,070	2,050	1,870
30	1,020	1,260	1,670	2,500	-----	5,460	5,120	7,510	2,770	2,050	2,050	1,900
31	1,090	-----	1,850	2,400	-----	6,500	-----	8,040	-----	2,010	2,070	-----
TOTAL	44,690	40,230	49,970	84,490	81,900	121,500	213,990	257,880	165,020	67,030	64,070	61,040
MEAN	1,442	1,341	1,612	2,725	2,925	3,919	7,133	8,319	5,501	2,162	2,067	2,035
MAX	2,310	2,200	2,280	6,130	3,470	6,500	9,650	12,000	7,870	2,540	2,180	2,160
MIN	1,010	950	1,190	1,730	2,260	2,990	5,120	4,440	2,730	1,950	1,990	1,870
AC-FT	88,640	79,800	99,110	167,600	162,400	241,000	424,400	511,500	327,300	133,000	127,100	121,100
CAL YR 1968: TOTAL	709,570			MEAN 1,939		MAX 5,640	MIN 950	AC-FT 1,407,000				
WTR YR 1969: TOTAL	1,251,810			MEAN 3,430		MAX 12,000	MIN 950	AC-FT 2,483,000				

PAYETTE RIVER BASIN

13-2506. Big Willow Creek near Emmett, Idaho

LOCATION.--Lat 44°04'25", long 116°29'10", in SE¼NW¼ (revised), sec.32, T.9 N., R.1 W., Payette County, 62 ft downstream from bridge on Emmett-Council road, 500 ft upstream from mouth of Four Mile Creek, 13.5 miles north of Emmett, and at mile 19.0.

DRAINAGE AREA.--47.4 sq mi.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,810 ft (from topographic map).

AVERAGE DISCHARGE.--7 years, 20.5 cfs (14,850 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,050 cfs Jan. 21 (gage height, 6.05 ft); minimum, 3.2 cfs Aug. 4, 22-24; minimum gage height, 2.14 ft Aug. 4.

Period of record: Maximum discharge, 1,860 cfs Dec. 22, 1964 (gage height, 7.61 ft); minimum, 1.2 cfs July 16, 1968 (gage height, 2.13 ft).

Flood of Feb. 24, or 25, 1957, reached a peak of 2,100 cfs (gage height not determined).

REMARKS.--Records fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 20-22, Dec. 30 to Jan. 2)

2.1	2.2	2.6	17	4.0	231
2.2	3.6	2.8	32	4.5	374
2.3	5.4	3.0	54	5.0	559
2.4	8.0	3.5	127	5.2	644

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	5.7	32	15	46	27	113	11	4.5	5.4	4.0	4.0
2	5.1	5.7	23	16	43	33	104	10	4.7	5.2	4.0	4.2
3	5.1	6.7	19	17	41	39	93	9.4	4.7	5.1	3.8	4.2
4	5.4	6.4	23	17	38	44	81	8.7	4.5	5.1	3.7	4.5
5	5.7	5.7	63	35	38	51	74	7.7	4.7	4.9	3.8	4.5
6	5.7	5.7	31	170	32	51	105	6.7	4.7	4.9	4.0	4.5
7	5.7	5.7	22	140	28	45	97	5.9	4.2	4.9	4.0	4.5
8	5.9	6.4	19	77	27	37	74	6.4	5.1	4.9	3.8	4.5
9	5.9	17	17	53	26	31	64	6.4	6.2	4.4	3.7	4.4
10	5.7	8.7	21	42	25	29	56	6.4	5.7	4.5	4.0	4.4
11	5.7	8.0	21	37	35	25	51	6.4	5.4	4.7	4.4	4.5
12	6.2	80	18	46	81	23	45	6.2	5.1	4.5	4.4	4.5
13	5.9	28	15	221	69	23	43	5.7	4.7	4.4	4.4	4.4
14	6.4	16	14	187	48	24	38	7.7	4.7	4.2	4.4	4.7
15	6.4	13	14	119	45	35	33	7.0	4.5	4.4	4.2	4.9
16	5.7	12	20	78	44	47	28	6.2	4.5	4.4	4.2	4.9
17	5.7	11	14	64	44	69	25	5.9	4.7	4.5	4.4	5.1
18	5.4	24	12	49	40	100	31	5.7	4.7	3.8	4.4	5.4
19	5.4	37	11	212	37	97	23	6.2	4.5	4.0	4.0	5.8
20	5.9	20	9.5	491	34	96	20	7.2	4.7	4.0	3.7	6.3
21	6.4	17	8.8	618	32	94	18	6.2	4.5	4.0	3.7	6.8
22	5.9	16	8.6	250	32	107	17	5.9	4.5	4.2	3.5	7.4
23	5.7	14	10	80	32	110	19	5.2	5.7	4.0	3.5	7.2
24	5.7	20	170	76	30	85	27	4.9	9.4	3.8	3.7	6.1
25	5.7	43	147	80	32	85	19	5.1	7.0	4.0	4.0	6.0
26	5.7	30	84	80	31	97	15	5.1	5.4	3.8	4.0	5.9
27	5.7	26	54	72	27	100	14	5.1	6.2	3.7	4.2	5.9
28	5.7	23	42	60	26	94	13	5.1	6.4	4.0	3.8	5.9
29	5.7	22	33	54	-----	100	12	5.1	5.9	4.2	4.0	5.9
30	6.7	55	23	52	-----	107	11	5.2	5.4	4.0	4.2	6.2
31	5.9	-----	18	48	-----	117	-----	4.7	-----	4.0	4.0	-----
TOTAL	178.4	588.7	1,016.9	3,556	1,063	2,022	1,363	200.4	156.9	135.9	123.9	157.5
MEAN	5.75	19.6	32.8	115	38.0	65.2	45.4	6.46	5.23	4.38	4.00	5.25
MAX	6.7	80	170	618	81	117	113	11	9.4	5.4	4.4	7.4
MIN	4.7	5.7	8.6	15	25	23	11	4.7	4.2	3.7	3.5	4.0
AC-FT	354	1,170	2,020	7,050	2,110	4,010	2,700	397	311	270	246	312

CAL YR 1968: TOTAL 5,594.2 MEAN 15.3 MAX 306 MIN 1.7 AC-FT 11,100
WTR YR 1969: TOTAL 10,562.6 MEAN 28.9 MAX 618 MIN 3.5 AC-FT 20,950

PEAK DISCHARGE (BASE, 170 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
11-12	0845	3.96	203	1-13	1715	4.90	487
12-24	1700	4.42	325	1-21	0245	6.05	1,050
1 - 6	1730	4.08	231				

13-2510. Payette River near Payette, Idaho

LOCATION.--Lat 44°02'33", Long 116°55'27", in NE¼SE¼SW¼ sec.10, T.8 N., R.5 W., Payette County, on right bank just upstream from bridge on U.S. Highway 95, 1.8 miles south of Payette, and at mile 4.1.

DRAINAGE AREA.--3,240 sq mi, approximately.

PERIOD OF RECORD.--August 1935 to current year. 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, nonrecording gage at site 50 ft downstream at present datum.

AVERAGE DISCHARGE.--34 years, 3,025 cfs (2,192,000 acre-ft per year); 15-year base period (1952-67), 2,934 cfs.

EXTREMES.--Current year: Maximum discharge, 12,000 cfs May 15 (gage height, 9.77 ft); minimum, 1,010 cfs Oct. 18 (gage height, 4.94 ft).

Period of record: Maximum discharge, 30,900 cfs Dec. 24, 1964 (gage height, 13.80 ft); minimum, 180 cfs Oct. 13, 20, 1935 (gage height, 2.04 ft); minimum daily, 220 cfs Oct. 5, 1935.

REMARKS.--Records excellent except those for period of no gage-height record, which are good. Flow regulated by Payette Lake (see sta 13-2385), Lake Fork Reservoir (see sta 13-2410), Deadwood Reservoir (see sta 13-2360), Cascade Reservoir beginning November 1947 (see sta 13-2445), and to some extent by Black Canyon Dam 34.6 miles upstream where flow is regulated by diversion and gate operation at dam. Diversions above station for irrigation of about 188,000 acres (1952 determination). Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1397: 1949(m), 1952, 1953-54(m). See also PERIOD OF RECORD.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 21-22, July 7 to Sept. 30; stage-discharge relation affected by ice Dec. 29-31)

	Oct. 1 to Mar. 11				Mar. 12 to Sept. 30			
5.0	1,080	8.0	6,600	5.1	1,210	8.0	6,870	
6.0	2,600	9.0	9,020	6.0	2,650	9.0	9,600	
7.0	4,480			7.0	4,570	10.0	12,800	

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,830	1,400	1,640	2,510	2,760	3,680	7,430	4,950	7,580	2,540	1,410	1,790
2	1,760	1,420	1,540	2,620	2,920	3,750	6,650	4,690	6,800	2,170	1,390	1,760
3	1,750	1,420	1,540	2,260	3,090	3,780	7,010	4,330	6,420	2,170	1,490	1,810
4	1,740	1,450	1,570	2,020	2,790	3,790	7,160	4,380	6,540	2,270	1,480	1,930
5	1,710	1,490	1,690	2,150	2,740	3,870	7,180	4,480	7,000	2,180	1,390	2,010
6	1,720	1,390	2,000	2,420	2,690	3,910	8,370	4,940	7,470	2,160	1,460	1,970
7	1,710	1,320	1,800	2,950	2,650	3,970	10,100	5,740	7,340	1,950	1,580	1,970
8	1,700	1,360	1,790	2,800	2,620	3,950	8,810	6,860	6,970	1,830	1,600	1,850
9	1,740	1,530	1,790	2,150	2,700	3,900	7,780	7,960	6,860	1,520	1,610	1,810
10	1,940	1,810	1,790	2,050	2,910	3,830	7,980	8,870	7,070	1,310	1,640	1,910
11	1,940	1,730	1,740	2,280	2,840	3,710	8,300	9,630	7,340	1,330	1,640	1,920
12	1,940	1,730	2,030	2,280	3,100	3,550	8,130	10,100	7,530	1,390	1,660	1,910
13	2,130	2,600	1,810	2,500	3,860	3,480	7,730	10,000	7,240	1,500	1,680	1,860
14	2,440	2,200	1,740	4,690	3,300	3,270	8,060	10,400	7,130	1,590	1,660	1,820
15	2,350	1,830	2,100	3,550	3,270	3,380	7,510	11,600	6,350	1,550	1,610	1,930
16	1,820	1,750	2,560	2,840	3,600	3,600	7,120	10,800	5,160	1,490	1,500	1,970
17	1,550	1,730	2,150	2,270	3,690	3,890	7,020	9,490	4,340	1,510	1,500	1,960
18	1,140	1,700	1,870	2,290	3,700	4,250	7,420	9,020	3,550	1,470	1,560	1,950
19	1,160	1,830	1,900	2,590	3,730	4,640	8,380	9,440	2,820	1,340	1,530	2,010
20	1,160	1,730	1,880	4,880	3,820	4,450	7,190	9,630	2,510	1,430	1,480	2,200
21	1,320	1,700	1,920	7,660	3,810	4,400	6,290	9,000	2,580	1,400	1,510	2,360
22	1,530	1,720	2,090	8,230	3,850	4,520	6,230	7,910	2,430	1,400	1,510	2,220
23	1,520	2,000	2,550	5,450	3,830	4,720	7,530	7,560	2,390	1,340	1,550	2,140
24	1,500	1,860	2,650	3,710	3,810	4,630	9,340	7,960	2,930	1,370	1,560	2,100
25	1,420	1,930	2,350	3,220	3,830	4,620	9,210	8,730	4,630	1,450	1,530	2,090
26	1,410	1,780	2,380	4,500	3,810	4,700	7,260	9,290	5,290	1,500	1,560	2,030
27	1,400	1,660	2,120	4,720	3,720	5,010	5,950	9,460	5,260	1,580	1,570	2,070
28	1,370	1,670	2,070	3,590	3,680	5,140	5,230	8,800	4,480	1,590	1,590	2,000
29	1,360	1,520	1,920	3,220	-----	5,160	4,890	7,630	3,780	1,530	1,650	1,930
30	1,370	1,610	1,900	2,920	-----	5,810	5,080	7,220	3,190	1,460	1,680	1,950
31	1,370	-----	2,060	2,920	-----	6,630	-----	7,700	-----	1,410	1,780	-----
TOTAL	50,800	50,870	60,940	104,240	93,120	131,990	222,340	248,570	160,980	50,730	48,360	59,230
MEAN	1,639	1,696	1,966	3,363	3,326	4,258	7,411	8,018	5,366	1,636	1,560	1,974
MAX	2,440	2,600	2,650	8,230	3,860	6,630	10,100	11,600	7,580	2,540	1,780	2,360
MIN	1,140	1,320	1,540	2,020	2,620	3,270	4,890	4,330	2,390	1,310	1,390	1,760
AC-FT	100,800	100,900	120,900	206,800	184,700	261,800	441,000	493,000	319,300	100,600	95,920	117,500

CAL YR 1968: TOTAL 708,301 MEAN 1,935 MAX 6,160 MIN 633 AC-FT 1,405,000
WTR YR 1969: TOTAL 1,282,170 MEAN 3,513 MAX 11,600 MIN 1,140 AC-FT 2,543,000

NOTE.--No gage-height record Nov. 20 to Dec. 27.

WEISER RIVER BASIN

13-2513. West Branch Weiser River near Tamarack, Idaho

LOCATION.--Lat 45°01'14", long 116°26'06", in SE¼SE¼ sec.34, T.20 N., R.1 W., Adams County, Payette National Forest, on left bank at Price Valley guard station, 0.1 mile upstream from East Branch Weiser River, and 5.2 miles northwest of Tamarack.

DRAINAGE AREA.--3.96 sq mi. Mean altitude, 4,900 ft.

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,200 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 4.83 cfs (16.56 inches per year, 3,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 38 cfs Apr. 23 (gage height, 3.86 ft); minimum daily, 0.87 cfs Oct. 1-11, Nov. 6.

Period of record: Maximum discharge, 84 cfs Apr. 21, 1965 (gage height, 4.59 ft); minimum daily, 0.4 cfs Nov. 22, 1964.

REMARKS.--Records good. No regulation or diversion above station. Records of water temperatures for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 13, Dec. 27 to Jan. 1, Jan. 23-27, Mar. 9-12)

2.1	0.70	2.5	6.7
2.2	1.3	3.0	22
2.3	2.3	3.5	30
2.4	4.0	4.0	47

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	.93	1.4	1.3	2.4	1.7	12	16	5.6	2.4	1.1	.93
2	.87	.93	1.5	1.3	2.4	1.7	13	15	5.2	2.3	1.1	.93
3	.87	1.0	1.4	1.3	2.2	1.7	15	14	4.7	2.2	1.0	.93
4	.87	.99	1.4	1.3	2.2	1.7	16	15	4.2	2.1	1.0	.93
5	.87	.93	1.4	1.3	2.1	1.7	18	16	4.0	2.0	1.0	.99
6	.87	.87	1.3	1.8	2.1	1.7	26	19	4.0	2.0	1.0	.99
7	.87	.93	1.6	2.2	2.1	1.7	23	25	4.0	2.1	.99	.99
8	.87	.99	1.3	1.9	2.0	1.7	20	29	3.8	2.0	.99	.99
9	.87	1.4	1.3	1.8	2.0	1.7	20	32	4.0	1.8	.99	.99
10	.87	1.1	1.3	1.8	1.9	1.7	23	33	3.6	1.7	.99	.99
11	.87	1.3	1.4	1.9	1.9	1.7	25	32	3.4	1.7	1.0	1.0
12	2.0	2.2	1.3	1.8	2.0	1.7	26	30	3.2	1.6	1.0	1.1
13	1.3	1.8	1.4	2.6	1.9	1.8	30	28	3.0	1.6	1.0	1.0
14	1.0	1.5	1.3	4.7	1.9	1.8	30	27	2.8	1.6	1.0	.99
15	1.0	1.3	1.4	4.0	1.8	1.8	27	27	2.7	1.6	1.0	.99
16	1.0	1.3	1.6	3.6	1.8	1.7	27	23	2.6	1.5	1.0	.99
17	.99	1.3	1.4	3.2	1.8	1.8	27	20	2.4	1.5	1.0	.99
18	.99	1.3	1.4	3.0	1.8	1.9	30	18	2.4	1.5	1.0	1.0
19	.93	1.2	1.4	2.8	1.7	1.9	28	18	2.7	1.4	1.0	1.2
20	1.0	1.3	1.3	2.7	1.8	1.9	25	19	3.2	1.3	1.0	1.5
21	.99	1.3	1.3	2.7	1.7	2.0	24	16	2.8	1.3	1.0	1.1
22	1.0	1.9	1.3	2.6	1.8	2.1	28	15	2.4	1.3	1.0	1.0
23	.99	1.9	1.3	2.5	1.7	2.2	34	13	2.8	1.3	.99	1.1
24	.93	1.9	1.3	2.3	1.7	2.3	36	12	3.4	1.3	.99	1.2
25	.93	1.7	1.3	2.3	1.8	2.4	31	11	2.8	1.3	.93	1.0
26	.93	1.6	1.3	2.5	1.7	2.8	27	10	2.8	1.3	.93	1.0
27	.93	1.5	1.3	2.8	1.7	3.6	24	9.4	3.0	1.3	.93	1.0
28	.93	1.5	1.3	3.0	1.7	4.4	22	8.2	3.2	1.2	.93	.99
29	.93	1.5	1.3	2.8	-----	5.8	21	7.3	2.8	1.1	.93	.99
30	.93	1.5	1.3	2.7	-----	7.6	19	7.3	2.8	1.2	.93	1.0
31	.93	-----	1.3	2.6	-----	10	-----	6.4	-----	1.2	.93	-----
TOTAL	30.20	40.87	42.1	75.1	53.6	80.2	727	571.6	100.3	49.7	30.65	30.80
MEAN	.97	1.36	1.36	2.42	1.91	2.59	24.2	18.4	3.34	1.60	.99	1.03
MAX	2.0	2.2	1.6	4.7	2.4	10	36	33	5.6	2.4	1.1	1.5
MIN	.87	.87	1.3	1.3	1.7	1.7	12	6.4	2.4	1.1	.93	.93
CFSM	.25	.34	.34	.61	.48	.65	6.12	4.66	.84	.40	.25	.26
IN.	.28	.38	.40	.71	.50	.75	6.83	5.37	.94	.47	.29	.29
AC-FT	60	81	84	149	106	159	1,440	1,130	199	99	61	61
CAL YR 1968: TOTAL	1,850.23			MEAN 5.06		MAX 46		MIN .77		CFSM 1.28	IN 17.38	AC-FT 3,670
WTR YR 1969: TOTAL	1,832.12			MEAN 5.02		MAX 36		MIN .87		CFSM 1.27	IN 17.21	AC-FT 3,630

13-2515. Weiser River at Tamarack, Idaho

LOCATION.--Lat 44°56'49", long 116°22'53", in NW¼NE¼ (revised), sec.31, T.19 N., R.1 E., Adams County, on right bank 60 ft downstream from railroad bridge, 0.6 mile south of Tamarack, 1.5 miles upstream from Beaver Creek, and at mile 94.5.

DRAINAGE AREA.--36.5 sq mi. Mean altitude, 4,600 ft.

PERIOD OF RECORD.--September 1936 to current year.

GAGE.--Water-stage recorder. Alitutde of gage is 4,080 ft (by barometer). Oct. 16, 1949, to Oct. 14, 1964, at site 100 ft upstream at datum 1.42 ft higher. Prior to Oct. 16, 1949, nonrecording gage at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE.--33 years, 43.6 cfs (31,590 acre-ft per year); 15-year base period (1952-67), 44.3 cfs.

EXTREMES.--Current year: Maximum discharge, 473 cfs Apr. 18 (gage height, 4.70 ft); minimum, 0.48 cfs July 5 (gage height, 1.38 ft).

Period of record: 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, 0.48 cfs July 5, 1969 (gage height, 1.38 ft); minimum gage height, 0.89 ft Sept. 21, 1958, site and datum then in use.

REMARKS.--Records good. No diversion above station. Diurnal fluctuation caused by millpond 0.6 mile upstream at Tamarack. Small flow from Boulder Creek in Salmon River basin enters Weiser River above station through transmountain diversion during late irrigation season.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 10-11, 13, 15, 20, Dec. 27 to Jan. 1,
Jan. 3, Jan. 23 to Feb. 5, Feb. 8, 13-14, 18-19, 24, 27-28, Mar. 2, 7-16)

1.7	4.1	2.5	47
1.8	6.2	3.0	101
2.0	13	4.0	276
2.2	24	5.0	553

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	8.0	14	13	36	19	209	149	30	14	6.3	5.3
2	6.2	7.9	15	13	35	18	235	138	26	13	6.9	5.7
3	6.0	9.0	15	13	34	18	269	124	25	11	6.5	5.6
4	6.1	7.6	15	16	33	18	278	119	22	15	6.6	5.1
5	6.0	7.1	16	21	31	18	318	127	21	7.4	6.8	5.4
6	6.2	6.1	12	40	30	18	377	141	22	5.8	7.1	5.5
7	6.4	5.8	13	33	29	16	324	164	24	8.6	7.2	5.5
8	6.2	6.7	14	27	28	14	287	190	14	9.9	6.9	6.0
9	6.1	17	13	26	26	14	297	194	18	9.0	6.5	5.8
10	6.2	9.1	13	33	25	14	332	189	18	8.4	6.4	5.6
11	6.8	9.6	15	27	25	14	341	181	15	8.2	7.5	6.0
12	20	32	15	48	25	15	357	165	14	8.9	6.5	6.8
13	22	23	14	72	25	16	415	150	13	8.6	6.0	7.6
14	14	16	13	81	24	17	386	139	13	8.9	6.4	7.2
15	12	13	15	72	24	18	343	153	12	8.3	6.1	6.2
16	11	11	24	62	22	18	317	123	12	9.6	7.6	6.4
17	9.7	12	21	57	22	18	313	107	11	11	5.5	5.8
18	8.9	11	19	52	22	19	370	97	11	11	4.8	7.1
19	8.9	11	18	48	22	18	332	97	10	10	5.3	8.5
20	9.2	12	17	57	22	22	262	104	11	9.6	5.9	11
21	10	15	16	71	21	22	236	97	16	8.9	5.5	11
22	9.1	29	15	62	21	26	260	87	13	8.4	5.8	7.4
23	9.0	26	16	40	20	29	328	78	14	7.4	6.4	6.7
24	8.6	23	15	37	20	30	350	67	22	9.6	5.9	9.1
25	8.4	22	17	36	20	34	283	63	19	8.1	5.0	7.7
26	10	18	15	38	20	42	226	54	17	8.2	4.7	8.4
27	7.7	19	16	41	20	60	196	48	16	7.1	4.9	8.5
28	7.6	18	15	43	19	73	185	44	19	7.1	5.9	6.7
29	7.9	16	14	40	-----	100	176	39	18	7.6	5.0	6.2
30	8.5	17	12	39	-----	123	162	37	17	7.7	5.2	7.6
31	8.8	-----	12	38	-----	170	-----	34	-----	6.8	5.2	-----
TOTAL	280.2	437.9	474	1,296	701	1,051	8,764	3,499	513	283.1	188.3	207.4
MEAN	9.04	14.6	15.3	41.8	25.0	33.9	292	113	17.1	9.13	6.07	6.91
MAX	22	32	24	81	36	170	415	194	30	15	7.6	11
MIN	6.0	5.8	12	13	19	14	162	34	10	5.8	4.7	5.1
AC-FT	556	869	940	2,570	1,390	2,080	17,380	6,940	1,020	562	373	411

CAL YR 1968: TOTAL 11,890.4

MEAN 32.5

MAX 168

MIN 5.6

AC-FT 23,580

WTR YR 1969: TOTAL 17,694.9

MEAN 48.5

MAX 415

MIN 4.7

AC-FT 35,100

PEAK DISCHARGE (BASE, 280 CFS).--Apr. 18 (0700) 473 cfs (4.70 ft); Apr. 24 (0230) 374 cfs (4.35 ft).

WEISER RIVER BASIN

13-2545. Lost Creek near Tamarack, Idaho

LOCATION.--Lat 44°57'20", long 116°27'55", in SE¼NW¼ sec.28, T.19 N., R.1 W., Adams County, Payette National Forest, on right bank 0.1 mile downstream from dam of Lost Valley Reservoir, 4 miles west of Tamarack, at mile 10.2, and 16 miles north of Council.

DRAINAGE AREA.--29.4 sq mi. Mean altitude, 5,460 ft.

PERIOD OF RECORD.--January 1910 to August 1914, May 1920 to September 1921, May 1924 to November 1929 (fragmentary); March 1930 to October 1969 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 4,729.6 ft above mean sea level (river-profile survey). Prior to Apr. 1, 1912, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--39 years (1930-69), 39.1 cfs (28,330 acre-ft per year); 15-year base period (1952-67), 40.9 cfs.

EXTREMES.--Current year: Maximum discharge, 328 cfs May 13 (gage height, 3.02 ft); minimum, 9.9 cfs Oct. 31 to Nov. 8 (gage height, 1.21 ft).

Period of record: Maximum discharge, 688 cfs May 17, 18, 1921 (gage height, 4.29 ft); no flow at times when gates in dam were closed.

REMARKS.--Records good. No diversion above station; practically entire flow diverted below station during irrigation season. Flow regulated since 1910 by Lost Valley Reservoir.

REVISIONS.--WSP 833: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.2	9.2	1.8	45	2.5	169
1.5	22	2.1	81	3.0	324

DISCHARGE, IN CUBIC FEET PER SECOND, 1970

DAY	OCT	DAY	OCT
1	42	6	41
2	42	7	41
3	41	8	41
4	41	9	40
5	41		
TOTAL		-	
MEAN		-	
MAX		-	
AC-FT		-	

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	9.9	10	11	11	11	11	156	20	25	58	76
2	30	9.9	10	11	11	11	11	141	22	24	57	76
3	30	9.9	10	11	11	11	11	124	24	24	57	76
4	30	9.9	10	11	11	11	11	109	26	22	60	74
5	30	9.9	10	11	11	11	12	115	28	22	61	74
6	30	9.9	10	11	11	11	12	129	31	21	61	74
7	30	9.9	10	11	11	11	12	159	33	20	61	73
8	30	9.9	10	11	11	11	12	197	35	19	64	74
9	30	10	10	11	11	11	12	236	37	19	67	73
10	29	10	10	11	11	11	12	258	40	18	67	73
11	29	10	10	11	11	11	12	308	39	17	71	71
12	29	10	10	11	11	11	12	314	38	26	73	66
13	29	10	10	11	11	11	12	314	37	35	71	63
14	29	10	10	11	11	11	12	314	34	35	71	62
15	29	10	10	11	11	11	13	308	25	33	70	61
16	29	10	10	11	11	11	17	294	25	37	71	61
17	29	10	10	11	11	11	49	271	24	44	71	61
18	29	10	10	11	11	11	103	249	24	42	70	61
19	29	10	10	11	11	11	159	239	24	41	70	60
20	30	10	11	11	11	11	175	236	26	40	68	60
21	30	10	11	11	11	11	177	224	26	40	68	58
22	30	10	11	11	11	11	197	212	25	41	71	57
23	29	10	11	11	11	11	236	203	26	48	73	57
24	29	10	11	11	11	11	255	104	28	60	73	50
25	29	10	11	11	11	11	249	17	28	60	71	43
26	29	10	11	11	11	11	227	27	26	60	71	43
27	29	10	11	11	11	11	206	41	26	60	70	42
28	29	10	11	11	11	11	191	52	27	60	73	42
29	29	10	11	11	-----	11	180	58	26	60	78	42
30	29	10	11	11	-----	11	169	49	26	58	77	43
31	25	-----	11	11	-----	11	-----	17	-----	58	77	-----
TOTAL	907	299.2	322	341	308	341	2,767	5,475	856	1,169	2,121	1,846
MEAN	29.3	9.97	10.4	11.0	11.0	11.0	92.2	177	28.5	37.7	68.4	61.5
MAX	30	10	11	11	11	11	255	314	40	60	78	76
MIN	25	9.9	10	11	11	11	11	17	20	17	57	42
AC-FT	1,800	593	639	676	611	676	5,490	10,860	1,700	2,320	4,210	3,660
CAL YR 1968 : TOTAL	10,469.0		MEAN 28.6		MAX 109		MIN 8.4		AC-FT 20,760			
WTR YR 1969 : TOTAL	16,752.2		MEAN 45.9		MAX 314		MIN 9.9		AC-FT 33,230			

13-2585. Weiser River near Cambridge, Idaho

LOCATION.--Lat 44°34'47", long 116°38'20", in SE¼NE¼ sec.1, T.14 N., R.3 W., Washington County, on left bank 100 ft upstream from road bridge, 2.2 miles northeast of Cambridge, 2.5 miles upstream from Rush Creek, and at mile 50.31.

DRAINAGE AREA.--605 sq mi. Mean altitude, 4,650 ft.

PERIOD OF RECORD.--March 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,650.00 ft above mean sea level (levels by Bureau of Reclamation). Aug. 29, 1956, to Aug. 19, 1966, at datum 2.0 ft higher. Apr. 23, 1939, to Dec. 21, 1955, at site 135 ft downstream at different datum. Nonrecording gage at different datum, prior to Apr. 23, 1939, at site 135 ft downstream and Dec. 22, 1955, to Aug. 28, 1956, at bridge 2.5 miles downstream.

AVERAGE DISCHARGE.--30 years, 642 cfs (465,100 acre-ft per year); 15-year base period (1952-67), 623 cfs.

EXTREMES.--Current year: Maximum discharge, 4,540 cfs Apr. 6 (gage height, 7.83 ft); minimum, 77 cfs Sept. 9 (gage height, 1.39 ft).

Period of record: 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.--Records good except those for March to July, which are fair. Flow regulated to some extent by Lost Valley Reservoir about 57 miles upstream (capacity reported to be 11,000 acre-ft) and other smaller reservoirs. Diversions for irrigation of about 9,200 acres (1948 determination) above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 13-29; stage-discharge relation affected by ice Dec. 20-25,
Dec. 29 to Jan. 3, Jan. 24-27, Feb. 1-7; backwater from tree on control May 26 to June 13)

1.3	76	3.0	469
1.5	92	4.0	1,060
2.0	156	6.0	2,540
2.5	277	8.0	4,740

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	124	259	270	490	300	4,040	1,550	1,220	409	98	86
2	91	111	242	280	440	294	4,040	1,440	1,140	393	96	84
3	89	132	236	260	390	310	3,950	1,330	1,120	350	95	82
4	91	136	239	274	350	328	3,450	1,320	1,150	313	94	82
5	90	121	328	300	350	421	3,510	1,460	1,180	315	96	81
6	91	110	268	465	360	413	4,290	1,670	1,210	296	96	82
7	90	107	220	639	360	413	3,490	1,980	1,110	258	90	81
8	90	118	247	531	346	388	2,670	2,410	1,070	246	88	79
9	92	236	236	465	350	397	2,460	2,640	1,170	220	88	78
10	95	225	231	434	339	406	2,680	2,810	1,020	198	88	79
11	95	183	328	417	332	383	2,620	2,870	919	183	87	81
12	166	628	297	409	392	391	2,720	2,800	792	174	87	85
13	294	421	201	977	469	420	3,050	2,720	711	171	87	86
14	177	271	234	2,260	392	437	2,860	2,880	640	168	87	83
15	164	253	239	1,580	429	454	2,500	2,910	580	152	87	83
16	148	225	300	1,140	396	484	2,320	2,470	550	146	86	84
17	134	208	256	932	376	503	2,310	2,240	520	147	86	84
18	130	239	244	761	357	735	2,740	2,200	490	149	86	87
19	127	300	220	705	342	840	2,620	2,420	450	128	86	99
20	128	284	150	674	328	955	2,250	2,400	480	113	86	118
21	144	277	95	1,380	339	1,100	2,050	2,030	457	107	85	131
22	136	357	130	1,670	339	1,230	2,340	1,880	381	105	85	114
23	134	354	180	1,120	332	1,400	3,060	1,860	405	111	86	111
24	130	314	190	790	314	1,330	3,310	1,860	1,070	102	86	120
25	132	342	350	770	324	1,460	2,680	1,740	780	110	86	110
26	128	310	421	950	303	1,650	2,140	1,610	623	106	86	102
27	126	294	339	950	284	1,850	1,850	1,630	556	105	86	101
28	120	259	274	824	294	1,940	1,770	1,440	574	103	85	100
29	120	244	250	680	-----	2,460	1,760	1,320	516	101	84	98
30	126	284	180	634	-----	2,950	1,640	1,470	453	96	86	101
31	130	-----	170	557	-----	3,620	-----	1,370	-----	97	87	-----
TOTAL	3,901	7,467	7,554	24,098	10,117	30,262	83,170	62,730	23,337	5,672	2,736	2,792
MEAN	126	249	244	777	361	976	2,772	2,024	778	183	88.3	93.1
MAX	294	628	421	2,260	490	3,620	4,290	2,910	1,220	409	98	131
MIN	89	107	95	260	284	294	1,640	1,320	381	96	84	78
AC-FT	7,740	14,810	14,980	47,800	20,070	60,020	165,000	124,400	46,290	11,250	5,430	5,540

CAL YR 1968: TOTAL 170,517

MEAN 466

MAX 4,260

MIN 55

AC-FT 338,200

WTR YR 1969: TOTAL 263,836

MEAN 723

MAX 4,290

MIN 78

AC-FT 523,300

PEAK DISCHARGE (BASE, 3,300 CFS).--Apr. 6 (1900) 4,540 cfs (7.83 ft); Apr. 24 (0630) 3,480 cfs (6.92 ft).

WEISER RIVER BASIN

13-2610. Little Weiser River near Indian Valley, Idaho

LOCATION.--Lat 44°29'35", long 116°23'45", in NE¼ sec.1, T.13 N., R.1 W., Washington County, on left bank 60 ft downstream from barn at Richardson Ranch, 1 mile upstream from diversion feeding into C. Ben Ross Reservoir, 4.8 miles southeast of Indian Valley, and at mile 21.0.

DRAINAGE AREA.--81.9 sq mi. Mean altitude, 5,300 ft.

PERIOD OF RECORD.--June 1920 to February 1921, March to June 1923, February 1924 to October 1927, and April 1938 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,250 ft (by barometer). See WSP 1317 or 1737 for history of changes prior to Aug. 12, 1950.

AVERAGE DISCHARGE.--34 years (1924-27, 1938-69), 103 cfs (17.08 inches per year, 74,620 acre-ft per year); 15-year base period (1952-67), 103 cfs.

EXTREMES.--Current year: Maximum discharge, 703 cfs May 10 (gage height, 3.73 ft); minimum, 6.5 cfs Oct. 3-5 (gage height, 0.14 ft).

Period of record: Maximum discharge observed, about 1,840 cfs Feb. 4, 1925; minimum, 2.6 cfs Nov. 27, 1967 (gage height, -0.18 ft).

REMARKS.--Records good except those for March to July, which are fair. One small diversion above station. Many diversions below station for irrigation including lower canal to C. Ben Ross Reservoir.

REVISIONS (WATER YEARS).--WSP 1347: 1923. WSP 1637: 1942(M). Some figures in the summary for 1965 calendar year and 1966 water year were published in error. Corrected summaries, superseding those published in WRD for Idaho 1966, are shown in the following table.

CAL YR 1965: MAX 961 MIN 9.4 MEAN 140 CFSM 1.71 IN 23.23 AC-FT 101,500
WTR YR 1966: MAX 317 MIN 3.8 MEAN 57.2 CFSM 0.698 IN 9.49 AC-FT 41,430

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 14 to Mar. 14, Apr. 25 to May 1, May 18-20, 25-26, June 21 to July 10, Aug. 25 to Sept. 17; stage-discharge relation affected by ice Dec. 20-24, Dec. 30 to Jan. 1, Jan. 24-26, Feb. 4-5)

0.0	5.0	1.0	49	3.0	458
.2	9.7	1.5	107	3.8	694
.5	20	2.0	204		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	19	47	48	74	46	330	259	436	72	19	7.6
2	6.7	18	46	49	66	46	350	245	430	67	18	7.4
3	6.5	29	45	45	61	48	380	230	444	63	18	7.1
4	6.5	29	47	44	54	51	400	225	458	60	16	7.4
5	6.5	23	54	55	52	54	450	260	447	57	14	7.9
6	6.7	21	47	179	54	53	500	320	424	56	14	7.9
7	6.9	21	47	177	51	51	400	400	380	54	13	7.6
8	6.9	24	48	110	49	49	320	500	360	52	12	7.1
9	7.9	56	45	88	48	46	340	600	400	50	12	7.1
10	8.9	37	58	76	47	46	360	680	340	48	12	7.4
11	9.4	39	64	72	47	39	370	660	290	46	12	7.4
12	19	172	55	72	52	40	400	640	245	43	12	7.4
13	28	77	40	271	52	42	430	620	215	39	11	7.6
14	18	56	52	266	48	45	380	600	190	38	12	7.6
15	19	52	50	179	51	44	350	660	170	37	11	7.6
16	18	47	51	133	49	44	320	580	160	35	11	7.9
17	16	44	44	109	48	46	300	570	150	34	11	7.9
18	16	58	44	92	48	48	420	591	140	33	11	8.4
19	15	72	39	96	47	48	390	612	130	31	11	8.9
20	18	67	20	133	44	50	350	573	135	30	11	11
21	18	64	20	443	47	50	350	521	86	28	10	12
22	18	70	34	259	47	56	400	512	74	26	10	11
23	18	63	38	175	47	62	518	521	92	25	10	10
24	18	59	65	145	46	66	465	553	295	24	9.2	12
25	18	57	92	140	47	76	362	558	170	24	8.7	11
26	17	56	72	160	46	92	304	567	138	23	8.4	11
27	16	53	62	135	44	125	287	541	131	20	8.1	11
28	16	51	56	112	44	150	285	489	119	20	7.9	10
29	17	48	48	93	-----	180	290	458	92	20	8.4	11
30	24	51	35	86	-----	220	268	518	77	19	7.9	11
31	20	-----	40	77	-----	300	-----	461	-----	19	7.6	-----
TOTAL	446.8	1,533	1,505	4,119	1,410	2,313	11,069	15,524	7,218	1,193	357.2	266.2
MEAN	14.4	51.1	48.5	133	50.4	74.6	369	501	241	38.5	11.5	8.87
MAX	28	172	92	443	74	300	518	680	458	72	19	12
MIN	6.5	18	20	44	44	39	268	225	74	19	7.6	7.1
CFSM	.18	.62	.59	1.62	.61	.91	4.51	6.11	2.94	.47	.14	.11
IN.	.20	.70	.68	1.87	.64	1.05	5.03	7.05	3.28	.54	.16	.12
AC-FT	886	3,040	2,990	8,170	2,800	4,590	21,960	30,790	14,320	2,370	709	528

CAL YR 1968: TOTAL 27,834.3 MEAN 76.1 MAX 600 MIN 6.5 CFSM .93 IN 12.64 AC-FT 55,210
WTR YR 1969: TOTAL 46,954.2 MEAN 129 MAX 680 MIN 6.5 CFSM 1.57 IN 21.32 AC-FT 93,130

PEAK DISCHARGE (BASE, 400 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-13	1600	2.89	441	4-22	2130	3.27	564
1-21	0630	3.13	509	5-10	unknown	3.73	703

NOTE.--No gage-height record Mar. 15 to Apr. 22.

13-2640. Crane Creek Reservoir near Midvale, Idaho

LOCATION.--Lat 44°21'26", long 116°36'55", in SE¼SE¼ sec.19, T.12 N., R.2 W., Washington County, at gate-control structure near left end of dam on Crane Creek, 9.5 miles southeast of Midvale, and at mile 12.5.

DRAINAGE AREA.--242 sq mi.

PERIOD OF RECORD.--November 1923 to September 1969 (discontinued) (fragmentary).

GAGE.--Nonrecording gage. Altitude of gage is 3,190 ft (by barometer).

EXTREMES.--Current year: Maximum gage height observed, 50.6 ft Jan. 23; minimum observed, 31.0 ft Sept. 19.
Period of record: Maximum gage height observed, 56.3 ft Feb. 22, 1927; no usable contents Sept. 23, 1928, to Feb. 28, 1929, Sept. 25 to Dec. 1, 1929, Oct. 22 to Dec. 3, 1952, Sept. 3-30, 1966.

REMARKS.--Reservoir is formed by earth dam completed in 1911 and raised in 1920-21. Spillway crest is at gage height 54.9 ft, and bottom of outlet tunnel is at gage height 6.56 ft. Approximate contents is 51,700 acre-ft between gage height 8.0 ft and 55.0 ft based on capacity table computed by the Geological Survey in 1927 and extended above 43.0 ft by the Idaho Department of Reclamation in 1935. No usable contents below gage height 7.0 ft.

COOPERATION.--Gage readings furnished by Crane Creek Reservoir Administration Board and Water District 41.

REVISIONS.--WSP 833: Drainage area.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	-	-	-	-	-	-	-	-	47.30	-	-
2	-	-	-	-	47.00	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	47.70	-	-	-
4	-	-	37.00	-	-	-	-	48.00	-	-	42.00	-
5	33.60	-	-	-	-	-	-	-	-	-	-	-
6	-	33.50	-	-	44.50	-	-	-	-	-	-	-
7	-	-	-	-	-	-	47.90	-	-	-	-	-
8	-	-	37.40	41.30	-	43.80	-	-	-	-	-	-
9	-	-	37.40	-	-	-	47.10	-	-	-	-	32.60
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	47.80	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	45.20	-	-	47.60	-	-	-	39.50	-
15	-	-	37.70	-	42.30	-	-	-	47.60	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	47.00	-	-
18	33.50	-	-	-	-	-	-	-	-	-	-	-
19	-	35.00	-	-	-	-	48.00	-	-	-	-	31.00
20	-	-	-	47.30	42.30	46.50	-	-	47.30	-	-	-
21	-	-	-	49.30	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	48.00	47.90	-	-	-	-
23	-	-	-	50.60	-	48.50	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	36.90	-
25	-	-	-	-	-	-	-	47.80	-	-	-	-
26	-	-	-	49.70	-	48.90	-	-	-	44.10	-	-
27	-	-	-	-	-	-	48.00	-	-	-	-	-
28	-	-	-	49.70	-	-	-	-	-	-	-	-
29	-	-	39.30	49.30	-----	-	-	-	-	-	-	-
30	-	-	-	-	-----	49.30	-	-	-	-	-	-
31	-	-----	-	-	-----	-	-----	-	-----	-	-	-----

NOTE.--Gage readings obtained only on days listed above.

WEISER RIVER BASIN

13-2645. Crane Creek near Midvale, Idaho

LOCATION.--Lat 44°21'20", long 116°37'03", in SE¼ sec.19, T.12 N., R.2 W., Washington County, on left bank 400 ft downstream from Crane Creek Dam, 9.5 miles southeast of Midvale, and at mile 12.4.

DRAINAGE AREA.--242 sq mi.

PERIOD OF RECORD.--October 1910 to September 1911, January 1912 to September 1915, January to April 1916, May 1924 to October 1969 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,140 ft (by barometer). May 1, 1924, to Dec. 7, 1952, on right bank at datum 1.54 ft higher. Oct. 30, 1910, to May 8, 1916, nonrecording gage at site 100 ft upstream at different datum.

AVERAGE DISCHARGE.--48 years (1912-15, 1924-69), 73.7 cfs (53,400 acre-ft per year); 15-year base period (1952-67), 73.1 cfs.

EXTREMES.--Current year: Maximum discharge, 877 cfs Jan. 21-28 (gage height, 4.98 ft); no flow on several days in April.

Period of record: 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 observed since regulation began, 1,370 cfs Mar. 30, 31, Apr. 1, 1913 (gage height, 6.1 ft site and datum then in use); no flow at times in many years when gates in dam were closed.

REMARKS.--Records good. Flow regulated since 1911 by Crane Creek Reservoir 0.1 mile upstream (see sta 13-2640). No large diversion above station.

REVISIONS (WATER YEARS).--WSP 833: Drainage area. WSP 963: 1941(M). WSP 1347: 1925, 1927. WSP 1737: 1911(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.6	0.30	2.5	62	4.0	333
1.7	3.5	3.0	115	4.5	559
1.8	8.2	3.5	188	5.1	944
2.0	20				

DISCHARGE, IN CUBIC FEET PER SECOND, 1970

DAY	OCT	DAY	OCT	DAY	OCT
1	.85	5	.17	9	.56
2	.56	6	.30	10	.30
3	.30	7	.56	11	.17
4	.17	8	.56	12	.10
TOTAL.....					
MEAN.....					
MAX.....					
MIN.....					
AC-FT.....					

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	6.1	7.6	8.2	842	12	856	19	19	15	222	181
2	5.2	6.1	7.6	8.2	807	12	856	19	9.9	14	222	175
3	5.2	6.1	7.6	8.2	747	12	856	19	5.2	13	219	170
4	4.8	6.1	8.2	8.7	754	12	856	19	6.6	13	219	162
5	4.8	6.1	8.2	8.7	741	12	842	19	14	13	216	160
6	5.2	6.1	8.2	8.7	601	12	842	18	13	14	216	160
7	5.2	6.1	8.2	8.7	393	12	821	18	13	14	209	159
8	5.2	6.1	8.2	8.7	389	12	741	18	14	14	205	151
9	5.2	6.1	8.2	9.9	389	12	593	18	14	16	205	130
10	5.2	6.1	8.2	9.9	389	12	0	19	14	34	203	126
11	5.7	6.1	8.2	9.9	385	11	0	19	14	69	203	121
12	5.7	6.6	7.6	9.9	380	11	0	19	14	96	203	115
13	5.7	6.6	7.6	11	380	12	0	19	14	130	203	109
14	5.7	6.6	7.6	76	380	12	0	19	14	146	201	100
15	5.7	6.6	7.6	160	305	12	0	19	14	141	201	92
16	5.7	6.6	7.6	162	190	12	0	19	14	151	198	85
17	5.7	6.6	7.6	162	190	12	0	19	14	188	198	84
18	5.7	6.6	7.6	162	188	12	0	19	14	207	198	84
19	5.7	6.6	7.6	162	186	12	20	19	14	209	196	84
20	5.7	7.1	7.6	400	97	67	62	19	14	209	190	66
21	6.1	7.1	7.6	767	14	110	62	19	13	209	190	44
22	5.7	7.1	7.6	877	13	111	62	19	13	209	192	22
23	5.7	7.6	7.6	877	12	321	62	19	13	209	192	4.8
24	5.7	7.6	7.6	870	12	614	62	19	13	207	192	1.5
25	5.7	7.6	7.6	870	12	614	61	19	12	222	190	1.8
26	5.7	7.6	7.6	870	12	678	61	19	12	229	190	1.2
27	5.7	7.6	8.2	870	12	747	36	19	12	229	188	1.5
28	5.7	7.6	8.7	870	12	747	19	19	13	229	188	1.2
29	5.7	7.6	8.7	870	-----	747	19	19	14	226	186	1.2
30	5.7	7.6	8.7	863	-----	793	19	19	15	226	186	.56
31	6.1	-----	8.2	856	-----	835	-----	19	-----	226	184	-----
TOTAL	171.7	202.0	244.9	10,862.7	8,832	6,610	7,808	585	392.7	4,127	6,205	2,593.76
MEAN	5.54	6.73	7.90	350	315	213	260	18.9	13.1	133	200	86.5
MAX	6.1	7.6	8.7	877	842	835	856	19	19	229	222	181
MIN	4.8	6.1	7.6	8.2	12	11	0	18	5.2	13	184	.56
AC-FT	341	401	486	21,550	17,520	13,110	15,490	1,160	779	8,190	12,310	5,140

CAL YR 1968: TOTAL 14,658.66 MEAN 40.1 MAX 274 MIN 0 AC-FT 29,080
WTR YR 1969: TOTAL 48,634.76 MEAN 133 MAX 877 MIN 0 AC-FT 96,470

13-2655. Crane Creek at mouth, near Weiser, Idaho

LOCATION.--Lat 44°17'28", long 116°46'48", in SW¼NE¼ sec.14, T.11 N., R.4 W., Washington County, on right bank just downstream from highway bridge at Harris Ranch, at mile 0.2, and 10 miles northeast of Weiser.

DRAINAGE AREA.--288 sq mi.

PERIOD OF RECORD.--July to September 1920, February 1921 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 2,240 ft (by barometer).

AVERAGE DISCHARGE.--48 years (1921-69), 82.5 cfs (59,770 acre-ft per year); 15-year base period (1952-67), 82.5 cfs.

EXTREMES.--Current year: Maximum discharge, 1,450 cfs Jan. 21 (gage height, 5.17 ft); minimum, 1.0 cfs Apr. 17, 18 (gage height, 1.64 ft).

Period of record: Maximum discharge, 3,170 cfs Feb. 26, 1957 (gage height, 6.23 ft); no flow for part of May 1, 1956, Apr. 19-21, 1967, Apr. 21-22, 1968; minimum daily, 0.11 cfs Apr. 20, 1967.

A major flood occurred Dec. 3 or 4, 1910.

REMARKS.--Records good except those for flow under 30 cfs, which are fair. Flow regulated by Crane Creek Reservoir 12.3 miles upstream (see sta 13-2640). Several small ditch diversions for irrigation above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 19-22, Dec. 29 to Jan. 1)

1.6	0.4	2.0	10	3.5	245
1.7	1.9	2.3	28	4.0	446
1.8	3.5	2.7	67	4.5	771
1.9	6.0	3.0	116	5.0	1,250

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	10	16	15	882	26	1,110	22	14	4.8	217	176
2	3.2	10	14	16	838	26	1,060	21	13	4.0	211	173
3	3.2	12	14	14	763	27	1,000	22	4.3	3.5	211	170
4	3.2	11	13	14	755	31	974	21	2.4	3.2	211	163
5	2.9	11	24	15	748	37	945	20	2.4	3.2	211	160
6	2.7	11	19	16	664	36	1,000	19	4.5	2.7	211	155
7	2.4	11	15	24	378	35	964	16	4.0	2.5	223	158
8	2.4	13	14	28	378	33	821	12	4.3	2.5	211	153
9	2.1	20	14	22	378	29	779	9.6	8.0	2.5	208	135
10	2.5	13	13	19	378	28	50	8.4	5.5	7.2	211	129
11	3.2	14	14	18	378	26	22	8.0	4.5	39	214	122
12	4.0	44	14	20	395	25	18	6.8	4.3	75	211	118
13	5.3	20	14	220	390	25	16	8.4	4.3	101	211	112
14	6.8	16	13	369	378	27	13	8.4	3.5	124	208	101
15	7.2	15	13	230	340	30	11	16	3.0	124	203	96
16	7.2	14	13	178	197	40	8.0	11	4.3	129	200	82
17	6.8	13	13	165	192	44	2.7	10	5.0	165	200	82
18	8.0	25	13	158	192	135	1.2	9.6	4.5	200	200	86
19	8.4	39	13	165	189	110	2.5	13	3.3	206	200	86
20	8.8	20	13	432	146	118	49	18	3.2	203	192	81
21	8.8	19	17	1,250	30	200	62	20	2.7	197	189	45
22	8.0	16	21	1,130	27	245	61	14	2.2	192	181	40
23	8.8	16	27	909	26	395	64	11	4.5	192	178	12
24	8.8	16	29	936	26	732	64	11	9.6	203	178	7.2
25	9.2	19	23	918	28	763	61	13	6.4	208	178	5.3
26	8.8	22	22	1,040	28	855	63	12	5.0	217	178	4.8
27	9.2	18	19	983	27	927	56	11	5.5	220	178	4.8
28	9.2	17	19	936	26	945	23	12	9.6	223	181	5.0
29	9.2	16	18	909	-----	1,000	22	14	9.2	220	178	3.8
30	9.2	16	17	900	-----	1,080	22	13	6.4	220	176	4.0
31	8.0	-----	16	891	-----	1,160	-----	11	-----	220	178	-----
TOTAL	190.0	517	517	12,940	9,177	9,190	9,344.4	422.2	163.4	3,714.1	6,137	2,669.9
MEAN	6.13	17.2	16.7	417	328	296	311	13.6	5.45	120	198	89.0
MAX	9.2	44	29	1,250	882	1,160	1,110	22	14	223	223	176
MIN	2.1	10	13	14	26	25	1.2	6.8	2.2	2.5	176	3.8
AC-FT	377	1,030	1,030	25,670	18,200	18,230	18,530	837	324	7,370	12,170	5,300

CAL YR 1968: TOTAL 16,268.73 MEAN 44.5 MAX 417 MIN 1.4 AC-FT 32,270
WTR YR 1969: TOTAL 54,982.0 MEAN 151 MAX 1,250 MIN 1.2 AC-FT 109,100

13-2660. Weiser River near Weiser, Idaho

LOCATION.--Lat 44°16'23", long 116°46'23", in NE¼SE¼ sec.23, T.11 N., R.4 W., Washington County, on right bank 0.4 mile upstream from county road bridge, 1.8 miles downstream from Crane Creek, 10 miles east of Weiser, and at mile 15.1.

DRAINAGE AREA.--1,460 sq mi, approximately.

PERIOD OF RECORD.--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 current year. Published as "at Weiser" prior to 1900.

GAGE.--Water-stage recorder. Altitude of gage is 2,220 ft (by barometer). Prior to October 1952, nonrecording gages at several sites downstream within 1.5 miles of present site at various datums.

AVERAGE DISCHARGE.--26 years (1895-96, 1898-99, 1900-4, 1911-14, 1952-69), 1,128 cfs (817,200 acre-ft per year); 15-year base period 1952-67, 1,030 cfs.

EXTREMES.--Current year: Maximum discharge, 8,810 cfs Mar. 31 (gage height, 7.81 ft); minimum, 96 cfs Oct. 3 (gage height, 1.55 ft).

Period of record: Maximum discharge observed, 19,900 cfs Dec. 23, 1955 (gage height, 11.06 ft); maximum gage height, 12.83 ft Jan. 31, 1961 (ice jam); minimum observed, 14 cfs Aug. 7, 1911 (gage height, 2.80 ft, site and datum then in use).

Flood of Mar. 19, 1932, reached a discharge of about 17,500 cfs.

REMARKS.--Records excellent except those for Dec. 11 to Jan. 9, which are fair. Flow slightly regulated since 1911 by Crane Creek Reservoir 14.3 miles upstream (see sta 13-2640) and other small reservoirs. Diversions for irrigation of about 22,000 acres (1948 determination) above station. Records of chemical analyses for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.5	94	4.0	1,530
2.0	220	6.0	4,660
2.5	420	8.0	9,490
3.0	690		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	190	460	400	1,750	602	7,960	2,140	1,900	608	283	253
2	113	182	418	430	1,650	599	7,630	2,010	1,760	541	283	246
3	105	179	390	420	1,570	630	7,170	1,830	1,710	495	279	246
4	100	207	393	420	1,430	670	6,350	1,750	1,730	461	275	233
5	103	205	496	440	1,420	890	6,320	1,900	1,750	434	279	233
6	105	185	526	600	1,400	901	7,230	2,140	1,820	385	283	240
7	105	170	419	800	1,070	890	6,730	2,530	1,670	353	283	240
8	108	179	400	860	1,010	903	5,150	3,080	1,600	325	264	240
9	114	257	407	800	1,000	858	4,580	3,420	1,720	297	260	219
10	122	400	386	734	1,000	859	3,880	3,660	1,550	273	260	217
11	130	306	470	671	990	767	3,750	3,840	1,390	273	260	209
12	145	632	430	680	1,090	745	3,690	3,850	1,220	288	268	211
13	290	825	420	1,050	1,340	780	3,850	3,710	1,090	278	260	216
14	297	514	410	5,310	1,220	795	3,850	3,950	982	303	264	203
15	236	409	390	3,390	1,190	816	3,480	4,130	894	286	260	193
16	221	389	370	2,150	996	943	3,210	3,610	790	273	260	182
17	198	355	440	1,730	952	950	3,160	3,230	734	283	260	183
18	185	372	400	1,420	925	1,480	3,470	3,180	669	318	264	193
19	181	626	320	1,330	878	1,800	3,530	3,420	615	310	260	199
20	181	519	220	1,620	806	2,020	3,160	3,540	633	294	272	235
21	185	498	170	3,910	667	2,400	2,830	3,070	673	279	240	255
22	196	484	240	4,910	677	2,840	3,080	2,770	574	272	230	241
23	188	576	280	3,180	660	3,520	3,860	2,750	536	286	223	191
24	184	506	340	2,830	651	3,680	4,430	2,790	1,140	260	227	181
25	182	520	440	2,830	654	3,990	3,800	2,730	1,240	268	230	186
26	182	578	440	3,010	640	4,470	3,120	2,660	885	290	230	179
27	179	488	400	3,040	606	5,110	2,670	2,570	801	290	237	170
28	176	455	400	2,420	598	4,670	2,460	2,240	807	298	237	161
29	174	418	360	2,070	-----	6,000	2,410	2,020	757	294	237	153
30	178	428	300	1,970	-----	6,880	2,280	2,080	682	286	243	146
31	186	-----	280	1,850	-----	7,850	-----	2,200	-----	283	250	-----
TOTAL	5,168	12,052	11,815	57,275	28,840	70,308	129,090	88,800	34,322	10,184	7,961	6,254
MEAN	167	402	381	1,848	1,030	2,268	4,303	2,865	1,144	329	257	208
MAX	297	825	526	5,310	1,750	7,850	7,960	4,130	1,900	608	283	255
MIN	100	170	170	400	598	599	2,280	1,750	536	260	223	146
AC-FT	10,250	23,900	23,430	113,600	57,200	139,500	256,000	176,100	68,080	20,200	15,790	12,400
CAL YR 1968: TOTAL	272,996			MEAN	746	MAX	10,300	MIN	91	AC-FT	541,500	
WTR YR 1969: TOTAL	462,069			MEAN	1,266	MAX	7,960	MIN	100	AC-FT	916,500	

WEISER RIVER BASIN

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13-2665. Galloway Canal near Weiser, Idaho

LOCATION.--Lat 44°14'34", long 116°49'48", in NE¼SE¼ sec.32, T.11 N., R.4 W., Washington County, on left bank 3.2 miles downstream from headworks of canal and 7 miles east of Weiser.

PERIOD OF RECORD.--April 1920 to October 1969 (discontinued). 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.--Period of record: Maximum daily discharge, 223 cfs June 24, 1957; no flow at times when gates were closed.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Canal diverts water from right bank of Weiser River in sec.35, T.11 N., R.4 W., for irrigation of about 11,700 acres (1953 determination), including about 1,200 acres irrigated from five diversions above station in projects of Weiser and Weiser Bench Irrigation Districts.

DISCHARGE, IN CUBIC FEET PER SECOND, 1970

DAY	OCT	DAY	OCT	DAY	OCT
1	104	6	107	10	100
2	108	7	104	11	99
3	109	8	100	12	99
4	109	9	100	13	97
5	108				
TOTAL.....					
MEAN.....					
MAX.....					
MIN.....					
AC-FT.....					

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	.05	.05	.10	.30	.10	.40	180	191	196	206	170
2	87	.05	.05	.10	.30	.10	.40	183	189	197	207	167
3	82	.05	.05	.10	.30	.10	.40	183	187	198	201	169
4	78	.05	.05	.10	.30	.10	50	187	196	198	201	164
5	80	.05	.05	.10	.30	.10	36	190	201	199	203	164
6	82	.05	.05	.10	.30	.10	37	190	201	198	201	162
7	82	.05	.05	.10	.20	.10	36	192	201	196	198	162
8	83	.05	.05	.10	.20	.10	33	193	205	190	194	163
9	84	.05	.05	.10	.20	.10	72	190	206	199	197	157
10	87	.05	.05	.10	.20	.10	121	187	203	194	202	151
11	90	.05	.05	.10	.20	.10	125	189	202	193	199	147
12	94	.05	.05	.10	.20	.10	127	191	201	201	198	140
13	111	.05	.05	.15	.20	.10	128	185	202	198	196	140
14	110	.05	.05	.20	.20	.10	130	194	203	208	196	138
15	64	.05	.05	.30	.20	.10	137	196	205	205	199	135
16	15	.05	.05	.40	.20	.10	142	196	204	199	198	127
17	7.8	.05	.05	.40	.15	.15	147	197	203	197	198	127
18	.15	.05	.05	.40	.15	.15	152	198	200	199	196	130
19	.10	.05	.05	.40	.15	.15	153	198	197	201	192	130
20	.05	.05	.05	.40	.15	.15	152	197	205	205	191	129
21	.05	.05	.05	.40	.15	.20	158	193	204	204	186	129
22	.05	.05	.05	.40	.10	.25	161	193	201	200	181	127
23	.05	.05	.05	.40	.10	.30	164	191	200	201	179	119
24	.05	.05	.05	.40	.10	.35	170	190	208	198	178	116
25	.05	.05	.05	.40	.10	.40	168	190	205	199	180	117
26	.05	.05	.10	.40	.10	.40	165	190	198	200	180	116
27	.05	.05	.10	.40	.10	.40	163	190	197	204	179	112
28	.05	.05	.10	.40	.10	.40	170	190	199	202	180	109
29	.05	.05	.10	.40	-----	.40	178	190	198	200	179	107
30	.05	.05	.10	.35	-----	.40	180	191	197	204	180	106
31	.05	-----	.10	.30	-----	.40	-----	192	-----	205	178	-----
TOTAL	1,325.65	1.50	1.85	8.10	5.25	6.10	3,456.20	5,916	6,009	6,188	5,953	4,130
MEAN	42.8	.050	.060	.26	.19	.20	115	191	200	200	192	138
MAX	111	.05	.10	.40	.30	.40	180	198	208	208	207	170
MIN	.05	.05	.05	.10	.10	.10	.40	180	187	190	178	106
AC-FT	2,630	3.0	3.7	16	10	12	6,860	11,730	11,920	12,270	11,810	8,190
CAL YR 1968: TOTAL 30,674.80 MEAN 83.8 MAX 195 MIN .05 AC-FT 60,840												
WTR YR 1969: TOTAL 33,000.65 MEAN 90.4 MAX 208 MIN .05 AC-FT 65,460												

NOTE.--No gage-height record Oct. 18 to Apr. 3.

WEISER RIVER BASIN

13-2669. Mann Creek Reservoir, near Weiser, Idaho

LOCATION.--Lat 44°23'31", long 116°53'38", in SE¼NE¼ sec.11, T.12 N., R.5 W., Washington County, in slide gate control house at downstream toe of dam, 10.5 miles northeast of Weiser, and at mile 11.4.

DRAINAGE AREA.--56 sq mi, approximately.

PERIOD OF RECORD.--March 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map). Prior to May 6, 1969, non-recording gage at same site and datum.

EXTREMES.--March to September 1967: Maximum contents observed, 11,200 acre-ft June 17-19 (elevation, 2,889.2 ft); minimum observed, 51 acre-ft Apr. 10 (elevation, 2,825.6 ft, during initial fill).

Water year 1968: Maximum contents observed, 11,200 acre-ft Apr. 1-6, 9-12, 15 (elevation, 2,889.2 ft); minimum observed, 2,940 acre-ft Sept. 30 (elevation, 2,850.7 ft).

Water year 1969: Maximum contents, 11,300 acre-ft May 9 (elevation, 2,889.55 ft); minimum observed, 2,740 acre-ft Oct. 10-14 (elevation, 2,849.3 ft).

REMARKS.--Reservoir is formed by earth-fill dam with rock face. Construction of dam began in 1965; completed in 1967; closure of dam was made Mar. 27, 1967. Usable contents, 13,510 acre-ft between elevations 2,825 and 2,897.1 ft (top of spillway outlet tower). Top of dam, 2,903.0 ft. Dead storage below 2,822 ft is 1,610 acre-ft. Water is used for irrigation and for conservation. Figures given herein represent usable contents.

COOPERATION.--Gage-height record Mar. 27, 1967, to May 5, 1968, furnished by U.S. Bureau of Reclamation. Record collected in cooperation with U.S.B.R. May 6, 1969, to Sept. 30, 1969. Capacity table furnished by U.S.B.R.

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

2,825.6	51		
2,825.6	51	2,860.0	4,440
2,830.0	452	2,870.0	6,390
2,840.0	1,530	2,880.0	8,690
2,850.0	2,840	2,890.0	11,400

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							-	2,840	9,620	-	7,330	4,330
2							-	2,980	9,760	-	7,260	-
3							-	3,040	9,860	-	7,170	-
4							-	3,150	9,940	-	7,080	-
5							-	3,270	10,000	10,500	-	-
6							-	3,450	10,100	10,300	-	-
7							-	3,680	10,300	10,200	6,840	-
8							-	3,940	10,400	-	6,750	-
9							-	4,230	10,500	-	6,660	-
10							51	4,670	10,600	-	6,580	-
11							264	5,010	10,700	-	6,520	-
12							482	5,260	10,800	-	-	-
13							671	5,430	10,800	-	-	-
14							901	5,610	11,000	-	6,260	-
15							-	5,730	11,100	-	6,200	3,420
16							1,410	5,910	11,100	-	6,080	-
17							-	6,010	11,200	-	5,930	-
18							1,560	6,470	11,200	-	5,830	-
19							1,680	6,800	11,200	-	-	-
20							1,810	7,150	11,100	-	-	-
21							1,920	7,470	11,100	-	5,430	-
22							-	7,790	11,100	-	5,300	-
23							-	8,130	11,100	-	-	-
24							2,150	8,470	-	-	-	-
25							2,270	8,690	-	-	-	-
26							2,380	8,870	11,100	-	-	2,970
27							2,460	9,020	11,100	-	-	-
28							2,580	9,130	11,000	-	-	-
29							-	9,270	10,900	-	-	2,860
30							2,750	9,390	10,800	-	-	2,810
31								9,490		7,420	4,400	
(†)	-	-	-	-	-	-	-	83.1	88.1	74.7	59.8	-
(‡)	-	-	-	-	-	-	*+2,750	+6,740	+1,310	-3,380	-3,020	-1,590
MAX	-	-	-	-	-	-	-	9,490	10,800	-	-	-
MIN	-	-	-	-	-	-	-	7,940	9,620	-	-	-

CAL YR 1966..... ‡ -

WTR YR 1967..... ‡ -

* Does not include dead storage during initial fill.

(†) Elevation, in feet, at end of month.

(‡) Change in contents, in acre-feet.

WEISER RIVER BASIN

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13-2669. Mann Creek Reservoir, near Weiser, Idaho--Continued

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-	2,680	-	3,360	3,710	8,350	11,200	11,100	11,000	8,950	5,610	-
2	2,790	2,680	-	3,380	3,720	8,570	11,200	11,100	11,000	8,870	5,510	3,840
3	2,760	2,680	-	3,380	3,740	-	11,200	11,100	11,000	8,740	5,390	3,820
4	2,750	-	-	3,380	3,770	9,020	11,200	11,100	11,000	8,620	5,280	3,790
5	2,740	-	-	3,390	3,770	9,260	11,200	11,100	11,000	8,440	5,200	3,760
6	2,710	2,690	-	3,390	3,790	9,490	11,200	11,100	11,000	8,300	5,080	3,720
7	-	2,710	3,000	3,390	3,820	9,650	11,100	11,100	10,900	8,150	4,990	3,680
8	-	2,710	3,010	3,410	3,860	9,840	11,100	11,100	10,900	8,010	4,840	3,630
9	2,640	2,720	3,010	3,440	3,890	9,890	11,200	11,100	10,900	7,840	4,750	3,600
10	2,610	2,740	3,040	3,450	3,920	-	11,200	11,100	10,900	7,680	4,670	3,520
11	2,610	-	-	3,470	3,990	10,000	11,200	11,100	10,800	7,560	4,570	3,480
12	2,610	-	3,040	3,470	-	10,000	11,200	11,100	10,800	7,420	4,460	3,440
13	2,610	2,760	3,060	3,480	4,040	10,100	-	11,100	10,800	7,280	4,350	3,390
14	-	2,780	3,060	3,520	4,080	10,200	-	11,100	10,800	7,190	4,250	3,340
15	-	2,790	3,070	3,520	4,090	10,300	11,200	11,100	10,800	7,100	4,180	3,310
16	2,620	2,810	3,070	3,530	4,130	10,400	11,100	11,100	10,700	6,990	4,110	3,270
17	2,620	2,820	-	3,550	4,160	-	11,100	11,100	10,700	6,880	4,040	3,240
18	2,620	-	3,100	3,550	4,320	10,600	11,100	11,100	10,600	6,820	3,940	3,160
19	2,620	-	3,120	3,560	-	10,700	11,100	11,100	10,500	6,730	3,940	3,180
20	2,620	2,840	3,130	3,580	4,800	10,800	11,100	11,100	10,400	6,620	3,940	3,130
21	-	2,840	3,130	-	5,260	10,800	11,100	11,000	10,300	6,540	3,960	3,100
22	-	2,850	3,160	3,600	5,890	10,900	-	11,000	10,100	6,430	3,960	3,070
23	2,640	-	3,180	3,610	6,220	11,000	11,100	11,000	10,000	6,320	3,960	3,040
24	2,640	-	-	3,610	6,800	-	11,100	10,900	9,840	6,240	3,960	3,010
25	2,640	-	-	3,630	7,220	11,100	11,100	10,900	9,730	6,180	3,960	3,010
26	2,640	-	3,210	3,630	7,420	11,100	11,100	10,900	9,570	6,120	3,940	3,010
27	2,640	2,900	3,220	3,640	7,650	11,100	11,100	10,900	9,410	6,050	3,920	3,000
28	-	2,910	3,270	-	7,890	11,100	-	11,000	9,360	5,990	3,920	2,980
29	-	2,910	-	3,680	8,130	11,100	11,100	11,000	9,130	5,910	3,920	2,980
30	2,660	2,920	3,310	3,680	-----	11,100	11,100	11,000	9,020	5,810	3,910	2,940
31	2,680	-----	3,340	3,690	-----	11,100	-----	11,000	-----	5,690	3,890	-----
(†)	48.9	50.6	53.4	55.6	77.7	89.17	89.1	88.6	81.3	66.6	56.8	50.7
(‡)	-130	+240	+420	+350	+4,440	+2,970	0	-100	-1,980	-3,330	-1,800	-950
MAX	2,790	2,920	3,340	3,690	8,130	11,100	11,200	11,100	11,000	8,950	5,610	-
MIN	-	-	-	3,360	3,710	8,350	11,100	10,900	9,020	5,690	3,890	2,940

CAL YR 1967..... † -

WTR YR 1968..... ‡ +130

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

WEISER RIVER BASIN

13-2669. Mann Creek Reservoir, near Weiser, Idaho--Continued

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,910	2,810	3,270	3,810	5,240	5,100	6,690	11,200	11,100	10,200	7,840	4,760
2	2,900	2,820	3,280	3,810	5,240	5,080	6,660	11,200	11,100	10,100	7,760	4,680
3	2,880	2,820	3,300	3,820	5,240	5,080	6,800	11,200	11,100	10,100	7,680	4,600
4	2,850	2,840	3,330	3,860	5,240	5,100	6,880	11,200	11,100	10,000	7,600	4,520
5	2,820	2,840	3,340	3,870	5,220	5,100	7,330	11,200	11,100	9,970	7,500	4,460
6	2,790	2,840	3,380	3,890	5,220	5,120	7,820	11,200	11,100	9,910	7,410	4,390
7	2,780	2,850	3,390	3,910	5,200	5,140	7,790	11,200	11,100	9,860	7,320	4,330
8	2,760	2,850	3,410	3,920	5,180	5,160	8,080	11,300	11,100	9,790	7,210	4,280
9	2,750	2,880	3,420	3,940	5,160	5,180	8,420	11,300	11,100	9,720	7,100	4,220
10	2,740	2,880	3,440	3,960	5,160	5,200	8,800	11,300	11,100	9,650	6,990	4,160
11	2,740	2,910	3,450	3,990	5,140	5,200	9,150	11,200	11,100	9,570	6,860	4,110
12	2,740	2,940	3,470	4,010	5,140	5,220	9,620	11,200	11,100	9,480	6,730	4,060
13	2,740	2,950	3,480	4,040	5,140	5,240	10,000	11,200	11,000	9,380	6,600	4,010
14	2,740	2,970	3,480	4,200	5,140	5,260	10,400	11,200	11,000	9,280	6,480	3,960
15	2,750	2,980	3,500	4,330	5,140	5,300	10,600	11,200	11,000	9,170	6,360	3,930
16	2,750	3,000	3,520	4,400	5,140	5,330	10,900	11,200	10,900	9,070	6,230	3,900
17	2,750	3,000	3,530	4,460	5,140	5,370	11,100	11,200	10,900	8,930	6,110	3,880
18	2,750	3,010	3,550	4,490	5,140	5,470	11,300	11,200	10,800	8,830	5,990	3,860
19	2,750	3,030	3,560	4,530	5,140	5,510	11,200	11,200	10,700	8,720	5,890	3,840
20	2,750	3,040	3,580	4,620	5,140	5,530	11,200	11,200	10,600	8,620	5,800	3,820
21	2,760	3,060	3,600	4,690	5,140	5,590	11,200	11,200	10,500	8,540	5,710	3,800
22	2,760	3,090	3,600	4,780	5,140	5,790	11,300	11,200	10,500	8,460	5,620	3,790
23	2,760	3,120	3,610	4,840	5,140	5,790	11,300	11,200	10,400	8,400	5,530	3,770
24	2,780	3,130	3,640	4,880	5,140	5,790	11,300	11,200	10,400	8,340	5,430	3,760
25	2,790	3,150	3,680	4,900	5,140	5,810	11,300	11,200	10,400	8,280	5,340	3,740
26	2,790	3,180	3,710	4,970	5,120	5,890	11,200	11,200	10,300	8,230	5,260	3,720
27	2,790	3,190	3,720	5,030	5,100	6,050	11,200	11,200	10,300	8,180	5,180	3,700
28	2,790	3,220	3,740	5,080	5,100	6,140	11,200	11,100	10,300	8,120	5,100	3,680
29	2,790	3,240	3,760	5,120	-----	6,300	11,200	11,100	10,200	8,050	5,010	3,660
30	2,790	3,250	3,770	5,160	-----	6,520	11,200	11,100	10,200	7,980	4,930	3,630
31	2,810	-----	3,790	5,200	-----	6,640	-----	11,100	-----	7,900	4,850	-----
(†)	49.8	52.8	56.2	64.1	63.6	71.2	89.4	89.09	85.77	76.77	62.23	55.22
(‡)	-130	+440	+540	+1,410	-100	+154	+4,560	-100	-900	-2,300	-3,050	-1,220
MAX	2,910	3,250	3,790	5,200	5,240	6,640	11,300	11,300	11,100	10,200	7,840	4,760
MIN	2,740	2,810	3,270	3,810	5,100	5,080	6,660	11,100	10,200	7,900	4,850	3,630

CAL YR 1968..... ‡ +450

WTR YR 1969..... ‡ +690

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

13-2670.5 Mann Creek below Mann Creek Dam, near Weiser, Idaho

LOCATION.--Lat 44°23'26", long 116°53'21", in SW¼NW¼ sec.12, T.12 N., R.5 W., Washington County, on left bank 800 ft downstream from spillway of Mann Creek Dam, 10.5 miles northeast of Weiser, and at mile 11.2.

DRAINAGE AREA.--56 sq mi, approximately. Mean altitude, 4,860 ft.

PERIOD OF RECORD.--April 1967 to current year. March 1911 to September 1913, July to November 1920, and April 1937 to September 1961, published as Mann Creek near Weiser, records are not equivalent due to diversions.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,750.49 ft above mean sea level (levels by Bureau of Reclamation).

EXTREMES.--Current year: Maximum daily discharge, 273 cfs Apr. 1; maximum gage height, 2.47 ft Apr. 7; minimum daily discharge, 0.13 cfs Dec. 13.

Period of record: Maximum daily discharge, 273 cfs Apr. 1, 1969; no flow May 5, 6, 1967.

REMARKS.--Records good except those below 2 cfs, which are poor. Mann Creek and Joslyn ditches divert from Mann Creek Reservoir for irrigation of land downstream from gage. Figures of daily discharge do not include water diverted by these canals.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 7					Mar. 8 to Sept. 30			
0.1	0.09	0.5	4.5		0.6	7.5	1.5	104
.2	.52	.6	7.5		.8	16	2.0	206
.3	1.2	.8	17		1.0	30	2.3	282
.4	2.5	1.0	33		1.2	51		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	.88	.22	.18	13	23	273	127	19	24	22	21
2	6.0	.73	.22	.18	21	23	226	119	18	18	22	20
3	6.0	.48	.22	.18	21	23	199	106	16	19	22	19
4	5.7	.48	.22	.18	21	23	125	97	14	21	25	19
5	5.7	.52	.22	.18	21	23	108	93	13	22	30	19
6	5.7	.78	.18	.22	21	23	200	114	14	22	28	19
7	4.3	.73	.18	.26	21	24	160	133	11	23	27	19
8	3.9	.73	.18	.26	21	25	51	149	12	22	30	19
9	3.1	.95	.18	.26	21	24	51	149	19	22	32	18
10	2.7	.88	.18	.26	21	24	50	143	23	22	31	15
11	2.7	.73	.18	.26	20	24	58	141	18	22	31	16
12	2.2	.59	.18	.26	19	23	61	125	29	25	34	14
13	1.9	.35	.13	.35	19	23	74	114	29	28	34	11
14	1.9	.39	.18	.35	19	23	98	115	25	25	33	10
15	1.7	.35	.18	.30	19	22	98	100	25	24	32	10
16	1.7	.26	.18	.26	19	22	98	84	25	20	32	9.5
17	1.7	.22	.18	.26	19	23	125	73	25	15	32	7.9
18	1.6	.71	.22	.26	20	29	221	68	25	15	30	7.9
19	1.2	.95	.18	.30	20	32	208	77	27	18	26	7.9
20	1.2	.35	.18	.35	20	32	182	77	28	18	23	7.9
21	.68	.22	.18	.43	20	39	174	63	27	17	21	7.9
22	.59	.81	.18	.35	20	47	204	56	25	16	21	7.9
23	.52	.52	.22	.30	20	58	261	47	26	17	21	7.9
24	.48	.26	.22	.30	20	73	252	44	26	18	21	7.9
25	.95	.22	.26	.30	21	68	204	40	27	18	19	7.5
26	.48	.22	.22	.30	23	68	174	37	27	18	17	7.9
27	.26	.22	.22	.30	23	68	155	34	27	19	16	7.9
28	.30	.26	.22	.30	23	80	149	29	27	22	21	7.9
29	.35	.30	.22	.30	-----	114	145	26	27	27	25	7.5
30	.22	.26	.22	.30	-----	157	133	27	27	29	22	7.5
31	.69	-----	.18	.35	-----	238	-----	22	-----	25	21	-----
TOTAL	73.32	15.35	6.13	8.64	566	1,498	4,517	2,629	681	651	801	367.9
MEAN	2.37	.51	.20	.28	20.2	48.3	151	84.8	22.7	21.0	25.8	12.3
MAX	6.9	.95	.26	.43	23	238	273	149	29	29	34	21
MIN	.22	.22	.13	.18	13	22	50	22	11	15	16	7.5
AC-FT	145	30	12	17	1,120	2,970	8,960	5,210	1,350	1,290	1,590	730

ADJUSTED FOR DIVERSIONS UPSTREAM FROM STATION TO MANN CREEK AND JOSLYN DITCHES

MEAN	5.22	1.67	.85	.93	20.9	48.9	152	105	37.6	42.9	49.4	21.8
AC-FT	321	99	52	57	1,160	3,010	9,070	6,430	2,240	2,640	3,040	1,300
OBSERVED												
CAL YR 1968: TOTAL	5,953.48	MEAN 16.3		MAX 78	MIN .13		AC-FT 11,810	MEAN 24.0	AC-FT 17,390			
WTR YR 1969: TOTAL	11,814.34	MEAN 32.4		MAX 273	MIN .13		AC-FT 23,430	MEAN 40.6	AC-FT 29,410			
ADJUSTED												

SNAKE RIVER MAIN STEM

13-2690. Snake River at Weiser, Idaho

LOCATION.--Lat 44°14'44", long 116°58'48", in NW¼SE¼ sec.31, T.11 N., R.5 W., Washington County, on right bank at upstream side of U.S. Highway 30N bridge at Weiser, 0.7 mile downstream from Weiser River, and at mile 351.3.

DRAINAGE AREA.--69,200 sq mi, approximately. Mean altitude, 5,400 ft.

PERIOD OF RECORD.--October 1910 to current year. 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. Prior to Oct. 1, 1914, nonrecording gage 0.2 mile downstream at different datum. Oct. 1, 1914, to Oct. 11, 1933, nonrecording gage, and Oct. 12, 1933, to Apr. 13, 1964, water-stage recorder, at site 0.3 mile upstream at same datum.

AVERAGE DISCHARGE.--59 years, 17,650 cfs (12,790,000 acre-ft per year); 15-year base period (1952-67), 16,720 cfs.

EXTREMES.--Current year: Maximum discharge, 49,300 cfs Apr. 7 (gage height, 9.53 ft); minimum, 9,490 cfs July 17 (gage height, 2.43 ft).

Period of record: Maximum discharge, 84,500 cfs Apr. 29, 1952 (gage height, 14.67 ft, site and datum then in use); minimum observed, 5,100 cfs Aug. 5, 1924 (gage height, 1.35 ft, site and datum then in use).

Flood of Mar. 3, 1910, reached a stage of 17.1 ft at site and datum 0.3 mile upstream, from reading on old U.S. Weather Bureau gage (discharge, 120,000 cfs). Flood in June 1894 was considerably higher.

REMARKS.--Records excellent. 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. Records of water temperatures for the water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1317: 1918. WSP 1567: 1910(M).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

2.5	9,650	6.0	26,900
3.0	11,700	8.0	39,000
4.0	16,400	10.0	52,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13,400	15,300	15,700	17,000	24,000	26,600	42,700	33,000	21,700	16,000	10,400	12,000
2	12,700	15,200	14,000	17,500	22,300	26,700	44,700	36,700	21,000	14,000	10,600	11,900
3	12,800	15,800	14,300	16,500	22,300	26,100	44,100	31,400	20,000	13,400	10,500	12,600
4	12,900	16,200	14,400	17,400	22,600	26,700	41,200	30,000	19,600	12,500	10,600	12,100
5	13,300	16,100	15,100	18,600	22,900	27,400	41,700	30,400	20,100	11,900	10,200	12,300
6	13,300	15,900	15,900	19,500	23,500	27,200	45,600	31,700	21,100	11,800	9,920	12,100
7	13,400	15,300	15,900	19,100	23,200	26,800	47,500	30,700	21,100	11,500	10,400	12,900
8	13,500	15,700	15,700	21,500	21,600	26,900	46,900	31,700	21,900	10,600	10,800	12,600
9	13,600	15,600	15,900	18,000	23,900	27,200	43,000	31,800	22,100	9,960	10,500	12,500
10	13,500	17,500	15,100	19,500	24,900	26,700	38,100	30,600	22,600	10,700	10,400	12,500
11	13,800	16,300	15,300	19,500	23,200	26,400	38,900	28,600	23,600	10,700	10,900	12,500
12	14,000	16,800	15,500	18,900	26,200	25,900	39,400	30,500	23,700	10,600	10,500	12,700
13	14,500	17,300	15,800	20,000	27,500	26,000	39,100	28,700	23,900	9,690	11,400	12,900
14	15,300	17,900	15,900	28,600	26,600	26,700	41,500	31,200	22,600	10,100	11,100	12,700
15	15,000	16,700	16,400	27,300	27,000	25,900	39,200	31,200	21,100	9,810	10,500	12,900
16	14,500	16,800	16,400	26,700	27,200	26,400	39,000	31,200	19,400	9,650	10,400	12,700
17	14,300	16,100	16,400	24,400	28,100	27,500	37,100	29,400	17,300	9,650	10,200	13,300
18	14,100	16,300	16,000	22,800	26,500	27,700	33,600	28,800	16,000	9,810	10,500	13,200
19	14,400	16,700	16,500	22,400	27,400	29,400	32,400	29,000	13,700	10,200	10,600	13,400
20	14,400	15,000	16,800	25,900	27,000	28,500	31,600	28,700	13,500	9,880	10,300	14,000
21	15,200	15,600	15,600	32,300	27,000	29,000	31,100	28,300	13,400	10,400	10,400	14,200
22	15,700	15,700	15,400	39,100	26,600	30,900	31,200	26,700	13,300	9,810	10,600	14,400
23	15,800	15,000	16,100	35,900	26,800	32,400	34,300	26,100	13,300	9,690	10,600	14,800
24	15,900	15,000	16,900	32,400	27,200	32,500	40,300	25,100	15,000	10,100	10,900	14,900
25	15,500	15,700	18,100	27,200	26,800	31,500	44,300	24,900	18,200	10,200	10,800	14,900
26	15,400	15,800	17,300	26,500	26,000	34,100	43,900	25,500	18,100	9,920	10,600	14,900
27	14,600	14,500	18,400	29,100	26,300	35,900	38,900	25,000	18,000	10,100	10,600	14,700
28	14,500	14,700	17,900	28,100	26,300	36,000	36,400	24,300	19,200	10,200	10,800	14,400
29	14,800	15,100	17,400	27,400	-----	39,500	37,600	22,500	18,400	10,600	10,700	14,100
30	15,000	14,700	17,000	24,900	-----	42,000	37,500	21,200	16,900	10,400	10,900	13,100
31	15,000	-----	16,400	24,900	-----	41,000	-----	21,600	-----	10,100	11,400	-----
TOTAL	444,100	476,300	499,500	748,900	712,600	923,500	1,182,8M	891,500	569,800	333,970	329,120	398,200
MEAN	14,330	15,880	16,110	24,160	25,450	29,790	39,430	28,760	18,990	10,770	10,620	13,270
MAX	15,900	17,900	18,400	39,100	28,100	42,000	47,500	38,000	23,900	16,000	11,400	14,900
MIN	12,700	14,500	14,000	16,500	21,600	25,900	31,100	21,200	13,300	9,650	9,920	11,900
AC-FT	880,900	944,700	990,700	1,485M	1,413M	1,832M	2,346M	1,768M	1,130M	662,400	652,800	789,800

CAL YR 1968 : TOTAL 4,990,250 MEAN 13,630 MAX 31,500 MIN 8,580 AC-FT 9,898,000
 WTR YR 1969 : TOTAL 7,510,290 MEAN 20,580 MAX 47,500 MIN 9,650 AC-FT 14,900,000

13-2897. Brownlee Reservoir at Brownlee Dam, Idaho-Oregon State line

LOCATION.--Lat 44°50'08", long 116°53'58", in SE¼SE¼ sec.2, T.17 N., R.5 W., Washington County, at Brownlee Dam on Snake River near Idaho end of dam, 1.1 miles upstream from Wildhorse River, 3.5 miles downstream from Brownlee Creek, 10.5 miles east of Halfway, Oreg., and at mile 285.0.

DRAINAGE AREA.--72,590 sq mi, approximately.

PERIOD OF RECORD.--May 1958 to current year. Published as "at Idaho-Oregon State line" 1958-59.

GAGE.--Remote registering water-stage recorder. Datum of gage is mean sea level, Idaho Power Co. datum. Prior to Feb. 2, 1959, nonrecording gage or levels to water surface at present site and datum.

EXTREMES.--Current year: Maximum contents, 1,443,000 acre-ft July 29 (elevation, 2,078.17 ft); minimum, 608,700 acre-ft Apr. 22 (elevation, 1,998.65 ft).

Period of record: Maximum contents, 1,453,500 acre-ft Aug. 6, 1962 (elevation, 2,078.91 ft); minimum since full capacity was attained June 23, 1959, 446,300 acre-ft May 11, 1965 (elevation, 1,975.98 ft).

REMARKS.--Reservoir is formed by earth-fill dam. Storage began May 5, 1958. Dam was completed in fall of 1958. Normal pool elevation, 2,077 ft. Water is used for power generation.

COOPERATION.--Water-stage recorder graph and capacity table furnished by Idaho Power Co.

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

1,998.0	603,900	2,040.0	977,100
2,000.0	618,700	2,060.0	1,198,000
2,020.0	786,400	2,080.0	1,469,000

CONTENTS, IN THOUSANDS OF ACRE-FT, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,425	1,425	1,423	1,209	1,205	940.9	689.5	852.1	1,251	1,432	1,429	1,427
2	1,424	1,424	1,419	1,198	1,200	926.9	684.8	877.5	1,266	1,428	1,429	1,418
3	1,424	1,423	1,414	1,176	1,185	901.0	688.9	912.9	1,279	1,428	1,435	1,413
4	1,422	1,428	1,408	1,160	1,177	894.2	686.1	948.8	1,293	1,431	1,436	1,407
5	1,421	1,429	1,404	1,155	1,174	897.5	684.9	969.3	1,311	1,427	1,434	1,406
6	1,421	1,431	1,401	1,152	1,174	868.8	684.5	973.8	1,335	1,432	1,427	1,406
7	1,421	1,428	1,398	1,143	1,170	854.7	702.9	962.7	1,367	1,432	1,422	1,415
8	1,421	1,422	1,396	1,141	1,169	852.3	695.8	953.8	1,397	1,429	1,422	1,413
9	1,421	1,421	1,398	1,131	1,164	840.2	693.4	942.6	1,417	1,427	1,423	1,408
10	1,419	1,425	1,397	1,122	1,165	833.6	689.5	937.2	1,423	1,423	1,427	1,405
11	1,418	1,422	1,394	1,106	1,164	817.0	677.3	927.2	1,423	1,417	1,427	1,405
12	1,420	1,422	1,391	1,092	1,169	785.4	665.1	915.6	1,426	1,420	1,428	1,404
13	1,426	1,423	1,389	1,075	1,174	759.6	648.9	922.0	1,421	1,425	1,426	1,407
14	1,430	1,426	1,389	1,088	1,177	735.4	636.9	939.7	1,417	1,424	1,419	1,419
15	1,430	1,427	1,397	1,102	1,181	706.0	628.5	945.1	1,410	1,423	1,415	1,419
16	1,431	1,426	1,399	1,109	1,187	682.1	619.4	957.2	1,401	1,422	1,410	1,417
17	1,430	1,426	1,398	1,126	1,178	661.9	618.4	962.6	1,396	1,420	1,414	1,416
18	1,428	1,420	1,396	1,139	1,154	639.2	613.5	967.5	1,390	1,421	1,409	1,415
19	1,426	1,417	1,387	1,156	1,125	640.7	617.1	975.7	1,392	1,421	1,403	1,413
20	1,426	1,413	1,378	1,170	1,093	648.0	613.0	984.2	1,397	1,421	1,398	1,415
21	1,425	1,413	1,357	1,183	1,076	652.4	610.6	989.5	1,407	1,423	1,395	1,424
22	1,424	1,412	1,334	1,193	1,065	653.2	608.9	1,008	1,418	1,422	1,390	1,427
23	1,423	1,416	1,309	1,208	1,045	657.7	614.2	1,030	1,422	1,421	1,387	1,427
24	1,424	1,419	1,304	1,221	1,024	655.9	633.5	1,050	1,428	1,425	1,393	1,427
25	1,423	1,422	1,307	1,220	999.5	645.6	658.0	1,071	1,428	1,425	1,394	1,424
26	1,423	1,421	1,301	1,218	983.3	654.9	702.9	1,094	1,427	1,434	1,392	1,420
27	1,421	1,421	1,288	1,226	968.9	674.7	737.7	1,121	1,428	1,439	1,394	1,417
28	1,420	1,428	1,279	1,227	948.9	691.8	762.3	1,148	1,429	1,439	1,400	1,421
29	1,418	1,419	1,264	1,230	-----	693.0	790.6	1,171	1,430	1,439	1,404	1,415
30	1,420	1,420	1,246	1,223	-----	694.2	822.5	1,199	1,427	1,436	1,413	1,415
31	1,423	-----	1,227	1,212	-----	690.5	-----	1,226	-----	1,434	1,428	-----
{+}	2,076.74	2,076.49	2,062.26	2,061.11	2,037.10	2,009.11	2,023.86	2,062.18	2,077.05	2,077.49	2,077.07	2,076.16
{-}	-3.3	-3	-193	-15	-263.1	-258.4	+132.0	+403.5	+201	+7	-6	-13
MAX	1,431	1,431	1,423	1,230	1,205	940.9	822.5	1,226	1,430	1,439	1,436	1,427
MIN	1,418	1,412	1,227	1,075	948.9	639.2	608.9	852.1	1,251	1,417	1,387	1,404

CAL YR 1968..... † -79

WTR YR 1969..... † -11

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

SNAKE RIVER MAIN STEM

13-2900. Snake River at Oxbow, Oreg.

LOCATION.--Lat 44°58'00", long 116°50'44", in SW¼SE¼ sec.9, T.7 S., R.48 E., Adams County, just upstream from intakes to Oxbow powerplant, 0.8 mile southeast of Oxbow, and at mile 273.5.

DRAINAGE AREA.--72,800 sq mi, approximately.

PERIOD OF RECORD.--May 1923 to March 1958, October 1967 to current year.

GAGE.--Foxboro Flow Meter with accumulating integrator on each of four penstocks, dial gage on each of three spillway gates, and water-stage recorder on Oxbow Reservoir. Prior to Dec. 20, 1923, nonrecording gage at site 0.6 mile upstream at different datum. Dec. 20, 1923, to Mar. 8, 1958, water-stage recorder at site 0.6 mile upstream at different datum.

AVERAGE DISCHARGE.--36 years (1923-57, 1967-69), 17,750 cfs (12,860,000 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 52,500 cfs Apr. 4; minimum daily, 5,400 cfs July 26.

Period of record: 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 daily discharge, 3,250 cfs May 26, 1968.

REMARKS.--Flow regulated by many reservoirs above station, the most effective of which is Brownlee Reservoir 11.5 miles upstream (see sta 13-2897). Oxbow Dam and powerplant started operation in 1958. Diversions for irrigation of about 2,609,000 acres (1958 determination) above station. Records of water temperatures for water year 1969 at site 0.6 mile downstream from tailrace of powerplant are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13,600	14,300	15,400	25,800	24,700	28,300	43,000	23,900	13,100	15,900	11,000	14,900
2	13,000	17,300	17,300	26,000	28,600	41,700	50,600	25,100	13,900	13,800	9,740	16,500
3	14,400	14,700	17,800	25,000	31,100	36,700	49,000	15,800	13,800	14,100	8,280	16,500
4	13,200	14,300	18,000	26,200	25,000	32,800	52,500	14,100	13,100	12,100	10,200	13,400
5	13,000	16,400	18,100	19,500	26,100	28,100	50,900	20,300	11,700	14,600	11,500	12,700
6	13,300	16,800	16,900	24,700	28,300	41,400	45,900	30,800	11,600	8,330	13,600	10,900
7	14,000	16,700	18,200	20,800	25,300	30,500	44,900	37,100	8,700	10,400	12,500	8,370
8	13,100	20,000	16,400	24,400	20,000	27,400	51,000	37,900	7,980	10,600	9,960	17,600
9	14,300	17,100	14,700	25,200	27,100	35,100	48,200	39,200	18,200	14,800	9,160	15,100
10	14,400	14,600	16,700	26,000	22,600	33,400	45,900	17,700	24,400	14,600	10,000	12,900
11	13,900	17,200	17,400	27,100	24,800	36,300	44,900	37,700	24,300	10,600	11,700	13,100
12	11,800	15,900	16,900	27,600	24,500	41,300	49,300	37,100	23,800	8,900	9,120	13,200
13	12,300	17,300	17,600	27,400	26,600	38,400	50,300	27,500	22,200	7,640	13,800	7,300
14	14,500	15,300	14,100	20,200	25,600	38,800	48,900	28,400	29,400	7,190	13,600	11,300
15	13,700	18,700	13,600	23,400	24,400	39,100	47,000	28,200	27,300	12,800	13,100	12,800
16	15,400	18,600	17,200	24,600	26,600	37,700	44,900	29,400	28,100	10,200	12,800	14,500
17	13,900	17,500	17,400	15,500	35,000	38,200	39,400	27,600	20,500	9,620	8,660	13,900
18	17,500	17,800	19,600	15,700	37,200	37,700	36,200	26,700	15,100	9,630	12,600	14,300
19	13,600	19,900	21,600	17,000	40,100	34,700	31,900	28,900	11,400	10,700	13,300	13,600
20	17,100	16,600	22,900	20,400	42,300	23,900	36,000	28,100	10,800	8,160	13,700	11,400
21	16,000	16,100	27,400	27,900	35,100	25,300	34,100	28,800	11,500	10,200	11,500	10,200
22	15,900	13,700	27,900	34,200	33,100	32,000	33,300	16,000	9,370	10,200	12,600	14,800
23	16,300	15,500	25,700	27,200	37,000	32,800	33,700	19,400	12,900	10,200	11,200	15,200
24	16,500	12,900	19,400	29,400	42,300	35,600	32,100	18,500	15,600	8,400	7,750	14,800
25	13,700	17,100	20,900	27,600	41,300	37,200	30,300	14,000	19,100	8,540	10,600	17,200
26	15,500	14,800	20,200	28,900	36,800	30,600	23,000	14,800	18,700	5,400	11,100	17,600
27	15,000	15,800	25,200	27,200	36,800	25,800	25,300	14,200	18,800	10,600	8,510	16,100
28	14,800	14,300	21,400	28,400	36,700	25,900	26,300	14,400	19,200	9,220	8,010	13,700
29	15,700	17,000	25,400	28,600	-----	42,800	24,000	13,000	20,300	10,900	9,800	14,400
30	13,400	14,800	27,600	30,000	-----	42,600	23,500	8,470	15,300	9,750	7,730	14,400
31	13,100	-----	26,700	25,100	-----	48,800	-----	11,800	-----	12,700	6,440	-----
TOTAL	445,900	489,000	615,600	777,000	865,000	1,080,900	1,196,300	734,870	510,150	330,780	333,560	412,670
MEAN	14,380	16,300	19,860	25,060	30,890	34,870	39,880	23,710	17,010	10,670	10,760	13,760
MAX	17,500	20,000	27,900	34,200	42,300	48,800	52,500	39,200	29,400	15,900	13,800	17,600
MIN	11,800	12,900	13,600	15,500	20,000	23,900	23,000	8,470	7,980	5,400	6,440	7,300
AC-FT	884,400	969,900	1,221,000	1,541,000	1,716,000	2,144,000	2,373,000	1,458,000	1,012,000	656,100	661,600	818,500

CAL YR 1968: TOTAL 5,224,560 MEAN 14,270 MAX 35,200 MIN 3,250 AC-FT 10,360,000
 WTR YR 1969: TOTAL 7,791,730 MEAN 21,350 MAX 52,500 MIN 5,400 AC-FT 15,450,000

M Expressed in thousands.

PINE CREEK BASIN

245

13-2901.9 Pine Creek near Oxbow, Oreg.

LOCATION.--Lat 44°57'13", long 116°52'21", in NE¼SW¼ sec.17, T.7 S., R.48 E., Baker County, 1.8 miles south of Oxbow, and at mile 1.9.

DRAINAGE AREA.--230 sq mi, approximately.

PERIOD OF RECORD.--November 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,850.48 ft above mean sea level (levels by Idaho Power Co.). Prior to Aug. 24, 1967, nonrecording gage at site 1.7 miles downstream at different datum.

EXTREMES.--Current year: Maximum discharge, 2,180 cfs June 9 (gage height, 7.28 ft); minimum, 26 cfs Aug. 25 (gage height, 3.19 ft).
Period of record: Maximum discharge, 7,110 cfs Feb. 21, 1968 (gage height, 9.82 ft); minimum, 26 cfs Aug. 25, 1969 (gage height, 3.19 ft).

REMARKS.--Records good. Diversions for irrigation of about 19,000 acres above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 21-22, 30, Jan. 24-26)

3.1	23	4.5	267
3.3	38	5.0	440
3.5	61	6.0	980
4.0	137	7.0	1,880

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	86	162	160	225	216	1,180	660	1,040	309	35	29
2	44	85	151	164	210	222	1,110	580	980	279	34	28
3	43	105	153	149	200	228	1,100	515	994	267	34	27
4	44	100	153	145	182	246	1,010	505	1,050	240	34	29
5	42	93	182	164	192	288	1,090	595	1,150	225	32	32
6	43	89	162	243	190	282	1,420	702	1,570	192	32	31
7	43	87	157	282	182	273	1,180	920	1,410	172	32	31
8	43	102	162	285	174	267	926	1,180	1,500	153	33	34
9	44	288	153	261	180	252	881	1,310	1,720	120	32	33
10	43	172	155	246	177	249	946	1,470	1,320	97	32	34
11	44	177	162	234	194	243	926	1,570	1,100	90	34	34
12	113	315	155	234	285	249	980	1,540	907	79	35	34
13	116	243	139	384	330	252	1,060	1,540	808	66	32	35
14	90	192	151	796	303	264	933	1,400	702	65	32	34
15	86	184	149	565	297	270	849	1,280	615	62	32	33
16	85	177	151	400	282	291	843	1,160	570	59	32	33
17	81	162	135	358	276	309	894	1,160	520	53	32	33
18	78	177	141	315	276	452	933	1,330	476	51	33	34
19	76	197	133	306	264	480	855	1,620	436	50	31	37
20	79	177	97	294	249	520	757	1,580	448	47	32	42
21	81	172	87	297	240	570	757	1,320	400	42	31	45
22	76	231	118	270	240	660	973	1,250	352	38	32	42
23	75	225	128	216	240	768	1,430	1,490	381	37	32	47
24	75	213	149	150	234	670	1,430	1,480	530	40	27	62
25	76	222	197	180	234	670	1,060	1,470	432	42	27	55
26	76	200	184	315	225	740	855	1,550	396	41	29	52
27	75	184	174	318	216	814	774	1,360	381	40	28	51
28	78	170	167	285	219	843	774	1,130	404	38	28	47
29	79	164	160	246	-----	913	779	1,020	381	38	29	46
30	102	170	116	243	-----	987	713	1,140	358	37	29	46
31	95	-----	124	234	-----	1,150	-----	1,160	-----	36	29	-----
TOTAL	2,175	5,159	4,607	8,739	6,516	14,638	29,418	36,987	23,331	3,105	976	1,150
MEAN	70.2	172	149	282	233	472	981	1,193	778	100	31.5	38.3
MAX	116	315	197	796	330	1,150	1,430	1,620	1,720	309	35	62
MIN	42	85	87	145	174	216	713	505	352	36	27	27
AC-FT	4,310	10,230	9,140	17,330	12,920	29,030	58,350	73,360	46,280	6,160	1,940	2,280

CAL YR 1968: TOTAL 108,128

MEAN 295

MAX 4,060

MIN 32

AC-FT 214,500

WTR YR 1969: TOTAL 136,801

MEAN 375

MAX 1,720

MIN 27

AC-FT 271,300

PEAK DISCHARGE (BASE, 1,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-6	2000	6.79	1,650	5-19	2400	6.99	1,840
4-23	2030	6.85	1,700	6-9	0500	7.28	2,180
5-12	0130	6.92	1,770				

SNAKE RIVER MAIN STEM

13-2904.5 Snake River at Hells Canyon Dam, Idaho-Oregon State line

LOCATION.--Lat 45°15'05", long 116°41'50", in SE¼SE¼ sec.33, T.3 S., R.49 E. (Willamette meridian, unsurveyed), Wallowa County, Wallowa National Forest, on left bank 0.2 mile upstream from Hells Canyon Creek, 0.4 mile downstream from Deep Creek, 0.6 mile downstream from Hells Canyon Dam, 15.5 miles northeast of Homestead, Oreg., and at mile 247.0.

DRAINAGE AREA.--73,300 sq mi, approximately.

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,400 ft above mean sea level (levels by Idaho Power Co.).

EXTREMES.--Current year: Maximum discharge, 55,600 cfs Apr. 10 (gage height, 77.16 ft); minimum, 9,020 cfs Aug. 27 (gage height, 64.66 ft); minimum daily discharge, 9,570 cfs Aug. 28, 29.

Period of record: Maximum discharge, 55,600 cfs Apr. 10, 1969 (gage height, 77.16 ft); minimum, 1,580 cfs Mar. 19, 1967 (gage height, 59.9 ft); minimum daily, 4,950 cfs May 26, 1968.

REMARKS.--Records excellent. Flow regulated by many reservoirs above station with a total usable capacity of more than 10,000,000 acre-feet, the most effective of which is Brownlee Reservoir 38 miles upstream (see sta 13-2897). Diurnal fluctuations caused by Hells Canyon powerplant. Diversions for irrigation of about 2,628,000 acres (1958 determination) above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

64.9	9,520	72.0	31,700
66.0	12,000	75.0	44,600
68.0	17,500	77.0	54,700
70.0	24,200		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14,400	14,500	14,600	27,500	30,100	38,400	52,700	28,600	13,800	17,700	11,200	9,800
2	14,400	14,500	21,500	28,100	31,000	38,200	52,100	25,800	16,000	17,700	11,600	13,000
3	14,200	15,900	21,000	27,900	30,900	38,400	50,400	18,800	15,800	15,900	11,000	14,600
4	14,200	17,800	19,900	26,700	29,500	37,900	50,400	18,800	15,700	13,900	10,300	15,000
5	13,900	17,200	18,500	19,900	27,400	26,800	50,600	21,100	15,700	13,300	10,800	15,000
6	12,200	19,200	18,900	26,000	27,600	44,200	50,400	35,800	14,700	11,900	11,200	13,300
7	15,300	20,100	16,300	26,200	27,800	39,100	50,000	42,600	12,800	12,000	12,900	11,200
8	14,100	23,100	12,900	25,500	27,500	33,100	50,500	42,900	12,900	12,000	14,600	14,000
9	13,200	19,400	19,800	27,700	27,000	33,100	50,600	43,100	18,700	12,000	11,500	14,400
10	15,200	11,800	17,100	28,600	26,600	33,300	52,500	43,000	22,500	12,200	10,000	14,600
11	15,600	18,400	19,100	28,600	28,400	38,600	53,700	43,000	26,900	12,000	11,300	14,500
12	13,500	20,000	17,700	28,100	28,000	43,200	54,100	39,400	31,100	12,100	10,700	14,400
13	11,200	13,100	17,400	29,600	28,200	43,200	54,000	33,600	31,000	11,400	11,100	11,500
14	14,700	13,600	14,100	30,300	29,500	43,200	54,400	32,500	31,100	10,500	14,800	10,600
15	14,700	15,500	13,300	23,000	28,200	42,900	54,600	32,600	30,900	10,000	14,700	11,200
16	14,500	18,800	17,900	27,100	28,300	42,800	53,900	32,800	28,400	10,200	12,000	12,700
17	16,500	19,300	20,400	22,000	36,200	42,700	46,600	32,900	23,700	10,100	10,200	14,700
18	17,100	21,500	21,600	16,400	42,100	43,000	39,300	32,900	18,900	10,000	13,600	14,400
19	15,600	22,200	23,900	16,800	46,400	42,500	39,500	32,900	14,000	9,990	13,200	13,200
20	13,600	19,400	22,800	23,600	45,200	28,300	39,500	32,800	12,400	9,980	14,300	11,500
21	20,600	17,200	25,400	27,800	35,400	32,000	39,300	30,900	12,700	10,100	14,600	10,700
22	17,200	15,600	24,600	36,500	37,700	35,500	39,000	23,800	12,800	10,000	13,200	15,100
23	19,600	12,800	29,300	30,900	40,900	35,900	38,700	22,700	13,400	10,100	10,800	16,400
24	19,800	14,200	21,100	30,900	40,700	39,600	38,600	22,600	15,800	9,950	9,960	16,200
25	18,600	18,700	21,000	31,100	40,000	41,500	34,700	19,400	19,700	10,000	11,100	16,600
26	11,600	17,300	21,400	31,000	38,400	32,200	28,900	17,700	21,300	10,100	10,800	17,200
27	10,600	19,200	25,800	31,000	38,400	28,200	28,600	17,600	20,500	10,000	9,910	16,900
28	13,000	12,800	23,800	31,000	38,400	36,700	28,500	17,400	21,300	10,000	9,570	13,500
29	13,900	13,600	24,800	30,900	-----	47,600	28,600	15,300	21,900	10,000	9,570	16,700
30	14,900	16,000	27,900	31,000	-----	48,200	28,600	13,800	20,400	10,100	9,710	17,800
31	15,500	-----	29,500	31,100	-----	50,700	-----	13,800	-----	10,400	9,610	-----
TOTAL	463,400	512,700	643,300	852,800	935,800	1,191,000	1,333,300	880,900	586,800	355,620	359,830	420,700
MEAN	14,950	17,090	20,750	27,510	33,420	38,420	44,440	28,420	19,560	11,470	11,610	14,020
MAX	20,600	23,100	29,500	36,500	46,400	50,700	54,600	43,100	31,100	17,700	14,800	17,800
MIN	10,600	11,800	12,900	16,400	26,600	26,800	28,500	13,800	12,400	9,950	9,570	9,800
AC-FT	919,100	1,017M	1,276M	1,692M	1,856M	2,362M	2,645M	1,747M	1,164M	705,400	713,700	834,400

CAL YR 1968: TOTAL 5,548,460 MEAN 15,160 MAX 35,200 MIN 4,950 AC-FT 11,010,000
WTR YR 1969: TOTAL 8,536,150 MEAN 23,390 MAX 54,600 MIN 9,570 AC-FT 16,930,000

M Expressed in thousands.

SNAKE RIVER MAIN STEM

247

13-2905. Snake River near Joseph, Idaho

LOCATION.--Lat 45°49'02", long 116°45'12", in NE¼NE¼ sec.24, T.4 N., R.48 E. (Willamette meridian, unsurveyed), Wallowa County, Wallowa National Forest, on left bank at China Gulch, 0.5 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 192.3.

DRAINAGE AREA.--73,800 sq mi, approximately.

PERIOD OF RECORD.--April 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 940.54 ft above mean sea level.

AVERAGE DISCHARGE.--14 years, 18,550 cfs (13,440,000 acre-ft per year).

EXTREMES.--Current year: Maximum daily discharge, 56,000 cfs Apr. 15; minimum, 9,540 cfs Aug. 29 (gage height, 1.05 ft).

Period of record: Maximum discharge, 80,800 cfs Dec. 26, 1964 (gage height, 20.16 ft); minimum daily, 1,050 cfs Sept. 1, 1958.

REMARKS.--Records good. Flow regulated by many reservoirs above station, the most effective of which is Brownlee Reservoir 92.7 miles upstream (see sta 13-2897). Diurnal fluctuation caused by Hells Canyon powerplant 54.7 miles upstream. Diversions for irrigation of about 2,628,000 acres (1948 determination) above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 31 to June 25)

1.0	9,430	10.0	33,500
5.0	18,800	16.0	58,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14,600	14,800	15,200	26,300	28,800	37,700	54,000	27,000	14,200	18,000	11,300	9,680
2	13,700	15,000	22,000	27,100	29,600	37,400	53,600	26,500	14,900	17,800	11,600	11,800
3	14,400	16,000	21,200	26,000	29,600	37,500	51,800	18,500	16,000	16,500	11,800	14,300
4	13,900	18,000	20,200	25,500	28,900	37,500	51,400	18,300	15,600	14,800	10,300	14,800
5	13,900	17,700	19,000	20,500	25,900	23,900	51,800	18,200	15,500	14,000	10,900	14,900
6	12,600	19,200	19,200	23,200	26,200	42,900	52,100	30,400	15,400	12,400	11,100	13,700
7	13,600	19,800	17,000	25,800	26,200	41,200	52,600	40,600	13,000	12,300	11,600	11,700
8	14,800	22,400	13,500	25,100	26,200	32,000	52,800	41,200	13,200	12,300	14,700	12,900
9	13,000	20,100	20,000	26,600	25,600	31,900	53,000	41,400	15,500	12,200	12,700	14,200
10	13,800	14,400	17,800	27,500	24,900	32,100	54,000	41,700	21,200	12,200	10,700	14,400
11	15,400	14,900	19,300	27,200	26,900	35,200	54,800	41,800	22,900	12,200	11,500	14,500
12	14,900	18,800	18,000	26,700	26,600	42,700	55,200	41,000	29,200	12,200	11,000	14,400
13	12,700	16,300	17,500	28,700	26,500	42,500	55,500	32,500	29,400	12,000	11,500	12,200
14	13,400	13,000	16,000	29,900	28,000	42,500	55,800	31,600	29,500	11,300	13,300	11,000
15	14,600	14,200	12,800	22,400	27,200	42,100	56,000	31,400	29,400	10,300	15,700	10,800
16	14,300	19,400	16,900	27,700	26,700	42,000	54,500	31,600	27,900	10,300	13,300	12,000
17	15,900	19,100	19,100	22,700	31,400	41,900	49,000	31,600	23,300	10,300	10,400	14,300
18	16,500	19,300	20,800	16,800	41,900	42,300	37,400	31,500	20,100	10,300	12,700	14,200
19	15,500	22,200	22,900	17,200	46,000	34,600	37,700	31,800	15,300	10,200	13,200	13,800
20	13,600	20,200	22,400	20,000	46,900	26,800	37,800	32,400	12,800	10,300	13,900	11,800
21	20,500	17,700	24,400	23,900	35,900	28,900	37,600	31,200	13,300	10,300	14,500	10,900
22	18,000	15,900	23,300	36,700	35,500	34,500	37,200	25,100	13,300	10,200	13,700	13,000
23	19,900	13,800	29,500	29,700	40,400	34,700	37,100	22,100	13,700	10,200	11,400	16,000
24	20,000	13,800	21,500	29,700	40,000	37,700	37,100	21,900	15,200	10,200	10,200	15,800
25	19,000	19,000	22,300	29,800	39,800	41,000	35,400	20,500	18,200	10,100	10,500	15,900
26	12,500	18,000	19,100	30,000	37,800	33,500	27,200	17,500	21,100	10,300	11,000	16,600
27	11,000	19,500	24,600	30,000	37,700	27,000	27,100	17,700	20,200	10,200	10,300	16,300
28	13,500	13,500	23,300	29,900	37,700	31,600	27,000	17,400	20,500	10,100	9,720	14,400
29	14,200	14,000	23,700	29,700	-----	48,200	27,000	16,500	21,300	10,200	9,600	14,800
30	15,000	16,200	26,500	29,700	-----	48,800	27,000	14,100	20,700	10,300	9,830	17,300
31	15,800	-----	28,300	29,700	-----	50,800	-----	14,200	-----	10,200	9,660	-----
TOTAL	464,500	516,200	637,300	821,700	904,800	1,163,4M	1,340.5M	859,200	571,800	364,200	363,610	412,380
MEAN	14,980	17,210	20,560	26,510	32,310	37,530	44,680	27,720	19,060	11,750	11,730	13,750
MAX	20,500	22,400	29,500	36,700	46,900	50,800	56,000	41,800	29,500	18,000	15,700	17,300
MIN	11,000	13,000	12,800	16,800	24,900	23,900	27,000	14,100	12,800	10,100	9,600	9,680
AC-FT	921,300	1,024M	1,264M	1,630M	1,795M	2,308M	2,659M	1,704M	1,134M	722,400	721,200	818,000

CAL YR 1968: TOTAL 5,532,410 MEAN 15,120 MAX 34,100 MIN 5,330 AC-FT 10,970,000
WTR YR 1969: TOTAL 8,419,590 MEAN 23,070 MAX 56,000 MIN 9,600 AC-FT 16,700,000

SALMON RIVER BASIN

13-2950. Valley Creek at Stanley, Idaho

LOCATION.--Lat 44°13'21", long 114°55'49", in SE¼NW¼SW¼ sec.3, T.10 N., R.13 E., Custer County, on left bank at mile 0.2, 0.5 mile northeast of Stanley, and 0.8 mile southwest of Lower Stanley.

DRAINAGE AREA.--147 sq mi. Mean altitude, 7,400 ft.

PERIOD OF RECORD.--December 1910 to April 1911 (gage heights only), May 1911 to October 1913, May 1921 to current year. 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. Prior to May 28, 1911, nonrecording gage at site 0.2 mile upstream and May 28, 1911, to Oct. 31, 1913, at site 0.8 mile upstream, at different datums. May 2, 1921, to Apr. 30, 1949, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--50 years (1911-13, 1921-69), 198 cfs (18.29 inches per year, 143,500 acre-ft per year); 15-year base period (1952-67), 210 cfs.

EXTREMES.--Current year: Maximum discharge, 1,180 cfs May 14 (gage height, 2.99 ft); minimum, 54 cfs Mar. 24 (gage height, 0.75 ft).

Period of record: 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.--Records good except those for winter period, which are fair. Diversions for irrigation of about 590 acres (1948 determination) above station.

REVISIONS (WATER YEARS).--WSP 362: 1911-12. WSP 1567: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 18 to Jan. 23, Feb. 2 to Mar. 10)

0.8	60	2.0	493
1.0	94	2.5	804
1.2	140	3.0	1,170
1.5	242		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	103	96	74	89	85	107	344	875	286	129	77
2	96	100	98	87	90	84	119	342	823	271	128	74
3	95	105	100	80	93	88	133	332	813	261	123	72
4	95	107	105	83	88	87	141	347	837	255	118	72
5	94	92	102	89	92	87	165	401	913	249	113	75
6	93	84	96	103	91	87	214	454	957	314	109	76
7	94	90	91	112	90	88	215	509	952	431	105	76
8	91	92	103	108	85	87	203	575	901	324	101	75
9	90	135	98	105	87	86	217	656	882	285	101	74
10	93	108	99	111	91	85	238	725	837	268	99	78
11	93	112	102	108	90	82	245	784	807	260	98	83
12	149	180	95	104	92	84	265	822	811	259	101	88
13	190	140	66	106	90	81	290	843	749	253	98	92
14	157	101	85	102	84	81	280	1,070	672	246	95	86
15	145	113	86	97	90	80	270	1,060	633	238	94	83
16	136	109	87	92	88	81	275	968	589	226	91	83
17	120	112	82	94	86	82	308	916	532	216	89	82
18	121	114	82	96	84	82	380	949	503	206	90	82
19	112	114	82	96	82	80	374	1,020	500	198	89	91
20	114	113	72	97	81	78	391	968	499	191	87	115
21	115	109	68	105	86	77	423	866	483	187	85	117
22	114	121	72	101	84	78	524	822	460	181	85	102
23	111	115	76	86	84	78	597	838	446	173	83	100
24	111	105	82	76	87	74	551	909	523	161	81	109
25	108	118	89	82	87	77	433	982	472	162	79	99
26	108	106	85	110	84	79	392	1,050	413	156	75	96
27	103	113	81	101	80	82	384	1,050	372	152	76	94
28	102	106	74	92	82	82	404	967	348	156	76	92
29	104	95	70	88	-----	85	424	872	333	147	76	91
30	109	110	66	88	-----	91	369	905	322	141	76	93
31	107	-----	68	88	-----	99	-----	946	-----	135	77	-----
TOTAL	3,468	3,322	2,658	2,961	2,437	2,577	9,331	24,292	19,257	6,988	2,927	2,627
MEAN	112	111	85.7	95.5	87.0	83.1	311	784	642	225	94.4	87.6
MAX	190	180	105	112	93	99	597	1,070	957	431	129	117
MIN	90	84	66	74	80	74	107	332	322	135	75	72
CFSM	.76	.75	.58	.65	.59	.57	2.12	5.33	4.37	1.53	.64	.60
IN.	.88	.84	.67	.75	.62	.65	2.36	6.15	4.87	1.77	.74	.66
AC-FT	6,880	6,590	5,270	5,870	4,830	5,110	18,510	48,180	38,200	13,860	5,810	5,210
CAL YR 1968: TOTAL	59,271											
WTR YR 1969: TOTAL	82,845											
MEAN	162											
MAX	719											
MIN	52											
CFSM	1.10											
IN	15.00											
AC-FT	117,600											
CFSM	1.54											
IN	20.96											
AC-FT	164,300											

PEAK DISCHARGE (BASE, 600 CFS).--Apr. 23 (2000) 804 cfs (2.50 ft); May 14 (1000) 1,180 cfs (2.99 ft).

13-2965. Salmon River below Yankee Fork, near Clayton, Idaho

LOCATION.--Lat 44°16'06", long 114°43'55", in sec.20, T.11 N., R.15 E. (unsurveyed), Custer County, Challis National Forest, on left bank 700 ft downstream from Yankee Fork, 18 miles upstream from Clayton, and at mile 366.9.

DRAINAGE AREA.--802 sq mi. Mean altitude, 7,790 ft.

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1317.

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft (by barometer). Sept. 3, 1927, to Nov. 5, 1934, at site 200 ft downstream at approximately present datum. Prior to Oct. 3, 1926, nonrecording gage at site 200 ft downstream at datum approximately 1.5 ft higher and Oct. 3, 1926, to Sept. 2, 1927, at site 200 ft downstream at approximately present datum.

AVERAGE DISCHARGE.--48 years, 987 cfs (16.71 inches per year, 715,100 acre-ft per year); 15-year base period (1952-67), 1,069 cfs.

EXTREMES.--Current year: Maximum discharge, 5,820 cfs May 27 (gage height, 8.68 ft); minimum, 327 cfs Mar. 24 (gage height, 1.82 ft).

Period of record: Maximum discharge, 10,300 cfs May 24, 1956 (gage height, 11.60 ft); minimum, 160 cfs (estimated) Nov. 25-30, 1929.

REMARKS.--Records excellent. Diversions above station for irrigation of about 6,000 acres (1948 determination).

REVISIONS (WATER YEARS).--WSP 1347: 1931. WSP 1567: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 20 to June 7; stage-discharge relation affected by ice
Dec. 30 to Jan. 5, Jan. 9-10, 17, Feb. 1-2, 15-16, Mar. 1, 3, 6, 8-9)

1.9	354	6.0	2,910
2.5	584	8.0	4,880
3.0	818	8.7	5,700
4.0	1,380		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	567	573	490	450	475	400	615	1,750	4,520	1,500	738	456
2	556	559	482	445	475	397	653	1,680	4,240	1,390	729	447
3	548	572	500	430	476	395	743	1,640	4,190	1,340	707	446
4	543	606	512	445	455	393	770	1,630	4,340	1,330	682	443
5	538	536	525	460	458	399	871	1,850	4,680	1,310	657	448
6	534	493	497	501	457	395	1,040	2,200	4,860	1,450	637	444
7	532	522	452	522	453	391	1,070	2,620	4,830	1,800	617	444
8	525	530	491	479	438	390	957	3,100	4,590	1,570	602	442
9	524	664	475	450	444	385	1,030	3,540	4,510	1,440	594	447
10	531	610	499	460	449	378	1,170	3,930	4,230	1,380	585	454
11	524	638	508	470	444	380	1,250	4,230	4,070	1,340	582	480
12	679	809	493	493	442	385	1,310	4,430	3,830	1,300	578	524
13	793	690	408	513	437	384	1,410	4,560	3,560	1,290	572	532
14	730	547	440	511	410	384	1,350	5,170	3,300	1,270	553	521
15	707	583	470	505	415	390	1,290	5,320	3,140	1,250	537	511
16	684	594	490	469	420	391	1,240	4,910	2,970	1,190	523	513
17	637	575	460	465	416	400	1,360	4,750	2,760	1,140	517	508
18	646	596	461	468	401	411	1,570	4,900	2,610	1,090	518	507
19	612	601	467	481	406	406	1,580	5,110	2,550	1,050	507	540
20	616	583	440	496	408	391	1,580	4,940	2,470	1,010	503	607
21	610	564	409	565	415	391	1,710	4,470	2,420	974	492	626
22	609	602	422	554	419	397	2,160	4,270	2,350	931	492	576
23	606	581	473	473	415	412	2,670	4,400	2,230	903	485	586
24	599	522	476	462	416	382	2,670	4,770	2,450	874	479	608
25	590	565	472	481	418	398	2,220	5,180	2,350	871	484	584
26	592	488	470	512	408	410	1,980	5,570	2,110	843	485	573
27	574	538	463	505	400	430	1,860	5,640	1,930	819	466	562
28	578	522	442	503	400	440	1,870	5,180	1,810	832	457	550
29	575	449	434	487	-----	462	1,960	4,690	1,700	801	457	543
30	594	525	420	470	-----	506	1,830	4,700	1,620	783	455	549
31	592	-----	425	475	-----	569	-----	4,810	-----	760	458	-----
TOTAL	18,545	17,237	14,466	15,000	12,070	12,642	43,789	125,940	97,220	35,831	17,148	15,471
MEAN	598	575	467	484	431	408	1,460	4,063	3,241	1,156	553	516
MAX	793	809	525	565	476	569	2,670	5,640	4,860	1,800	738	626
MIN	524	449	408	430	400	378	615	1,630	1,620	760	455	442
CFSM	.75	.72	.58	.60	.54	.51	1.82	5.07	4.04	1.44	.69	.64
IN.	.86	.80	.67	.70	.56	.59	2.03	5.84	4.51	1.66	.80	.72
AC-FT	36,780	34,190	28,690	29,750	23,940	25,080	86,850	249,800	192,800	71,070	34,010	30,690

CAL YR 1968: TOTAL 311,544 MEAN 851 MAX 3,510 MIN 280 CFSM 1.06 IN 14.45 AC-FT 617,900
WTR YR 1969: TOTAL 425,359 MEAN 1,165 MAX 5,640 MIN 378 CFSM 1.45 IN 19.72 AC-FT 843,700

PEAK DISCHARGE (BASE, 2,350 CFS).--Apr. 23 (2300) 3,080 cfs (6.18 ft); May 27 (0100) 5,820 cfs (8.68 ft).

SALMON RIVER BASIN

13-2985. Salmon River near Challis, Idaho

LOCATION.--Lat 44°22'43", long 114°15'18", in SE¼SE¼ sec.7, T.12 N., R.19 E., Custer County, on left bank 250 ft downstream from Bayhorse Creek, 9 miles south of Challis, and at mile 334.8.

DRAINAGE AREA.--1,800 sq mi, approximately. Mean altitude, 7,820 ft.

PERIOD OF RECORD.--October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,163.92 ft above mean sea level.

AVERAGE DISCHARGE.--41 years, 1,466 cfs (11.06 inches per year, 1,062,000 acre-ft per year); 15-year base period (1952-67), 1,585 cfs.

EXTREMES.--Current year: Maximum discharge, 8,340 cfs May 27 (gage height, 7.89 ft); minimum, 324 cfs Dec. 21 (gage height, 1.28 ft), result of freezeup.

Period of record: Maximum discharge, 15,400 cfs May 25, 1956 (gage height, 10.95 ft); minimum, 160 cfs Dec. 14, 1940 (gage height, 0.95 ft).

REMARKS.--Records excellent except those for January to February, which are good. No regulation. Diversions for irrigation of about 10,000 acres (1948 determination) above station.

REVISIONS.--WSP 1043: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 21-30; stage-discharge relation affected by ice Dec. 14, 23, 24, Dec. 30 to Jan. 6, Jan. 10-12, 17, 19, Jan. 31 to Feb. 3, Feb. 6, 7, 9-13, 16, 21-24, Mar. 1-3, 6, 9)

1.5	388	4.0	2,100
2.0	583	6.0	4,890
3.0	1,160	8.0	8,360

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	913	861	720	560	600	580	1,040	2,470	6,610	2,410	1,290	783
2	895	838	689	620	620	580	1,050	2,370	6,270	2,310	1,270	772
3	884	849	730	580	640	600	1,150	2,290	6,190	2,250	1,230	762
4	889	895	767	580	635	616	1,150	2,260	6,370	2,210	1,180	756
5	872	832	767	660	621	616	1,240	2,470	6,920	2,190	1,130	762
6	861	751	741	720	660	620	1,450	2,930	7,210	2,270	1,090	767
7	855	751	640	805	660	611	1,530	3,510	7,190	2,900	1,060	767
8	844	783	704	684	650	561	1,370	4,160	6,780	2,690	1,030	756
9	832	866	704	611	660	550	1,420	4,920	6,720	2,500	1,010	756
10	849	943	730	610	660	531	1,590	5,490	6,410	2,400	993	772
11	838	889	751	640	660	522	1,710	5,880	6,100	2,350	981	805
12	913	1,030	720	720	660	561	1,770	6,190	5,690	2,340	987	866
13	1,140	1,000	579	778	670	588	1,900	6,390	5,390	2,320	974	889
14	1,090	827	550	778	625	621	1,860	7,010	5,020	2,250	949	878
15	1,050	788	669	756	602	645	1,770	7,230	4,790	2,200	925	844
16	1,010	861	746	635	620	650	1,660	6,810	4,540	2,130	913	838
17	961	822	669	620	645	710	1,760	6,630	4,200	2,010	901	861
18	961	855	654	621	579	694	1,970	6,940	3,990	1,920	901	810
19	925	861	689	690	510	679	2,040	7,120	3,940	1,850	889	832
20	913	849	616	756	539	659	2,040	6,900	3,880	1,790	878	901
21	913	827	489	961	560	635	2,120	6,240	3,820	1,720	855	1,010
22	907	844	473	844	580	645	2,700	6,000	3,700	1,660	838	937
23	901	849	580	592	600	640	3,500	6,290	3,480	1,600	822	925
24	895	794	700	497	620	588	3,720	6,900	3,720	1,560	816	943
25	884	805	772	535	650	621	3,150	7,480	3,760	1,540	810	943
26	884	746	741	689	616	699	2,800	8,050	3,380	1,520	822	919
27	361	767	694	715	583	810	2,610	8,140	3,100	1,450	810	907
28	866	778	639	664	565	805	2,600	7,570	2,910	1,450	805	889
29	861	669	611	625	-----	849	2,710	6,900	2,710	1,450	783	872
30	872	751	470	561	-----	949	2,570	6,900	2,600	1,390	794	872
31	884	-----	410	580	-----	1,050	-----	7,120	-----	1,340	800	-----
TOTAL	28,223	24,981	20,469	20,687	17,295	20,485	59,950	177,560	147,390	61,970	29,536	25,394
MEAN	910	833	660	667	618	661	1,998	5,728	4,913	1,999	953	846
MAX	1,140	1,030	772	961	670	1,050	3,720	8,140	7,210	2,900	1,290	1,010
MIN	832	669	410	497	510	522	1,040	2,260	2,600	1,340	783	756
CFSM	.51	.46	.37	.37	.34	.37	1.11	3.18	2.73	1.11	.53	.47
IN.	.58	.52	.42	.43	.36	.42	1.24	3.67	3.05	1.28	.61	.52
AC-FT	55,980	49,550	40,600	41,030	34,300	40,630	118,900	352,200	292,300	122,900	58,580	50,370

CAL YR 1968: TOTAL	468,466	MEAN	1,280	MAX	5,260	MIN	410	CFSM	.71	IN	9.68	AC-FT	929,200
WTR YR 1969: TOTAL	633,940	MEAN	1,737	MAX	8,140	MIN	410	CFSM	.96	IN	13.10	AC-FT	1,257,000

13-2992, Challis Creek below Jeffs Creek, near Challis, Idaho

LOCATION.--Lat 44°33'43", long 114°16'40", in NW¼NE¼ sec.12, T.14 N., R.18 E., Custer County, 0.2 mile upstream from Mill Creek, 1.5 miles downstream from Jeffs Creek, 4.5 miles northwest of Challis, and at mile 4.9.

DRAINAGE AREA.--91.2 sq mi.

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,210 ft (from topographic map).

AVERAGE DISCHARGE.--6 years, 50.7 cfs (36,730 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 333 cfs May 26 (gage height, 4.60 ft); minimum daily, 6.6 cfs Jan. 15-16.

Period of record: Maximum discharge, 918 cfs June 12, 1965 (gage height, 5.55 ft); minimum, 0.88 cfs Dec. 6, 1966 (gage height, 2.46 ft); minimum gage height, 1.92 ft Mar. 16, 1964.

REMARKS.--Records good except those for December to March, which are poor. Flow is partly regulated by Mesquite Flat Reservoir (capacity, 1,050 acre-ft).

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 25 to May 27; stage-discharge relation affected by ice
Nov. 14-18, 24, Nov. 26 to Mar. 18)

Oct. 1 to May 27				May 28 to Sept. 30			
2.6	6.6	3.0	47	2.7	19	3.5	107
2.7	14	3.5	129	2.8	26	4.0	189
2.8	23	4.1	274	3.0	44	4.3	243

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	20	11	14	11	17	84	60	187	71	49	32
2	29	19	11	12	10	16	80	57	187	70	48	32
3	29	21	11	11	9.0	18	82	54	175	66	47	29
4	29	22	12	10	9.0	23	74	54	169	62	48	27
5	29	20	13	12	9.0	29	70	56	170	61	47	27
6	27	17	13	14	10	26	74	66	175	67	44	25
7	25	17	12	12	11	25	72	80	170	75	44	27
8	26	19	12	11	12	23	63	96	160	68	43	25
9	27	24	12	9.0	12	23	60	101	162	64	41	23
10	29	22	13	8.0	12	23	62	120	150	60	39	24
11	26	21	15	11	12	24	63	137	140	58	38	24
12	29	21	14	11	12	24	63	149	133	56	38	25
13	31	19	13	12	12	27	66	160	127	55	40	23
14	31	16	14	10	11	30	64	181	120	52	39	23
15	30	12	15	6.6	11	32	60	198	118	48	38	23
16	29	11	15	6.6	11	33	54	185	112	47	36	23
17	27	11	15	6.8	11	35	56	188	106	48	36	23
18	31	12	15	8.0	10	40	60	208	99	46	38	22
19	31	12	14	10	10	37	57	274	96	43	36	23
20	31	11	12	13	10	39	57	268	96	43	35	25
21	27	11	8.0	14	11	43	57	266	90	46	33	24
22	29	12	8.0	12	12	41	70	243	85	45	33	21
23	29	12	8.4	9.0	13	32	86	218	89	44	33	20
24	24	12	8.6	7.0	15	32	98	228	93	46	33	20
25	22	11	9.0	7.0	17	35	89	252	92	50	33	20
26	23	11	9.0	8.0	16	42	78	271	88	50	33	19
27	20	11	10	10	15	47	72	254	85	50	32	19
28	20	11	11	11	16	55	67	241	83	51	32	19
29	19	10	9.0	10	-----	58	63	223	80	49	31	19
30	20	11	8.0	9.0	-----	77	60	223	75	48	32	19
31	20	-----	7.0	10	-----	100	-----	214	-----	49	31	-----
TOTAL	829	459	358.0	315.0	330.0	1,106	2,061	5,325	3,712	1,688	1,180	705
MEAN	26.7	15.3	11.5	10.2	11.8	35.7	68.7	172	124	54.5	38.1	23.5
MAX	31	24	15	14	17	100	98	274	187	75	49	32
MIN	19	10	7.0	6.6	9.0	16	54	54	75	43	31	19
AC-FT	1,640	910	710	625	655	2,190	4,090	10,560	7,360	3,350	2,340	1,400

CAL YR 1968: TOTAL 15,648.0 MEAN 42.8 MAX 295 MIN 7.0 AC-FT 31,040
WTR YR 1969: TOTAL 18,068.0 MEAN 49.5 MAX 274 MIN 6.6 AC-FT 35,840

NOTE.--No gage-height record Feb. 1 to Mar. 15.

SALMON RIVER BASIN

13-3025. Salmon River at Salmon, Idaho

LOCATION.--Lat 45°11'00", long 113°53'40", in NE¼NE¼ sec.6, T.21 N., R.22 E., Lemhi County, on left bank 1,000 ft downstream from island, 0.4 mile upstream from Lemhi River, 0.5 mile downstream from highway bridge at Salmon, and at mile 258.9.

DRAINAGE AREA.--3,760 sq mi, approximately. Mean altitude, 7,380 ft.

PERIOD OF RECORD.--April 1912 to September 1916, July 1919 to current year. 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 (levels by Corps of Engineers). Prior to Oct. 21, 1929, nonrecording gage at site 700 ft upstream at different datum.

AVERAGE DISCHARGE.--54 years, 1,932 cfs (1,400,000 acre-ft per year); 15-year base period (1952-67), 2,061 cfs.

EXTREMES.--Current year: Maximum discharge, 9,720 cfs May 27 (gage height, 6.44 ft); minimum daily, 766 cfs Sept 4; minimum gage height, 0.66 ft Sept. 9.
Period of record: Maximum discharge, 16,500 cfs May 25, 1956 (gage height, 8.25 ft); maximum gage height, 9.62 ft Jan. 8, 1942 (ice jam); minimum discharge, 242 cfs Jan. 8, 1937 (gage height, 1.50 ft).

REMARKS.--Records excellent except those for February, which are good. Diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1043: Drainage area. WSP 1317: 1916.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 5-20, Sept. 7-30; stage-discharge relation affected by ice Dec. 28 Jan. 5, Jan. 18, Feb. 1-4, 7, 10, 17-21, Mar. 10)

1.6	733	5.0	5,590
2.0	1,020	6.0	8,290
3.0	2,020	6.4	9,580
4.0	3,530		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,600	1,430	1,350	930	1,050	1,020	2,540	3,210	7,710	3,130	1,440	814
2	1,580	1,420	1,280	1,190	1,020	1,080	2,250	3,080	7,110	2,950	1,390	807
3	1,550	1,410	1,260	1,100	1,030	1,070	2,400	2,950	6,790	2,820	1,370	780
4	1,540	1,480	1,340	1,100	1,050	1,080	2,330	2,890	6,810	2,750	1,310	766
5	1,530	1,490	1,390	1,200	1,080	1,070	2,350	2,900	7,280	2,660	1,250	787
6	1,520	1,390	1,360	1,310	1,110	1,090	2,680	3,210	7,860	2,720	1,200	821
7	1,490	1,300	1,280	1,480	1,180	1,110	2,950	3,730	7,920	3,340	1,170	821
8	1,470	1,300	1,210	1,360	1,160	1,070	2,640	4,320	7,560	3,580	1,100	800
9	1,460	1,390	1,290	1,150	1,130	1,000	2,470	4,980	7,280	3,280	1,090	840
10	1,460	1,510	1,270	1,110	1,150	970	2,630	5,690	7,140	3,160	1,070	906
11	1,480	1,470	1,360	1,190	1,180	957	2,860	6,200	6,740	2,930	1,060	935
12	1,450	1,480	1,330	1,230	1,190	964	2,900	6,660	6,370	2,810	1,060	964
13	1,490	1,660	1,260	1,370	1,210	1,020	3,000	7,000	6,000	2,720	1,050	1,060
14	1,890	1,530	1,100	1,420	1,170	1,060	3,080	7,480	5,570	2,630	1,030	1,080
15	1,830	1,350	1,120	1,400	1,100	1,090	2,930	8,290	5,270	2,540	1,020	1,050
16	1,760	1,380	1,260	1,290	1,100	1,150	2,810	8,070	5,000	2,440	980	1,050
17	1,720	1,410	1,310	1,140	1,100	1,320	2,750	7,620	4,690	2,370	972	1,070
18	1,650	1,410	1,220	1,100	1,050	1,550	2,900	7,680	4,360	2,290	964	1,040
19	1,650	1,440	1,230	1,160	1,020	1,320	3,110	8,260	4,200	2,160	972	1,030
20	1,590	1,470	1,200	1,380	960	1,300	3,080	8,320	4,220	2,020	957	1,130
21	1,590	1,460	1,040	2,260	980	1,280	3,080	7,680	4,200	1,960	920	1,290
22	1,550	1,440	957	2,720	1,080	1,260	3,310	7,110	4,100	1,880	899	1,350
23	1,540	1,460	980	1,520	1,150	1,250	4,080	7,110	3,980	1,790	884	1,240
24	1,550	1,450	1,170	1,100	1,110	1,170	4,730	7,620	4,120	1,750	863	1,200
25	1,520	1,400	1,320	1,000	1,110	1,110	4,480	8,350	4,540	1,680	849	1,240
26	1,490	1,400	1,320	1,090	1,100	1,230	3,980	8,950	4,200	1,640	807	1,270
27	1,470	1,310	1,250	1,280	1,070	1,580	3,660	9,420	3,930	1,590	807	1,290
28	1,430	1,370	1,180	1,240	1,030	1,960	3,480	9,150	3,670	1,580	800	1,250
29	1,420	1,310	1,070	1,160	-----	2,010	3,430	8,290	3,510	1,580	787	1,220
30	1,430	-----	940	1,100	-----	2,120	3,390	7,680	3,310	1,510	800	1,220
31	1,420	-----	800	1,070	-----	2,530	-----	7,980	-----	1,450	835	-----
TOTAL	48,120	42,560	37,447	40,150	30,670	39,791	92,280	201,880	165,440	73,710	31,706	31,121
MEAN	1,552	1,419	1,208	1,295	1,095	1,284	3,076	6,512	5,515	2,378	1,023	1,037
MAX	1,890	1,660	1,390	2,720	1,210	2,530	4,730	9,420	7,920	3,580	1,440	1,350
MIN	1,420	1,240	800	930	960	957	2,250	2,890	3,310	1,450	787	766
AC-FT	95,450	84,420	74,280	79,640	60,830	78,930	183,000	400,400	328,200	146,200	62,890	61,730
CAL YR 1968 : TOTAL	638,283			MEAN 1,744	MAX 6,370	MIN 800	AC-FT 1,266,000					
WTR YR 1969 : TOTAL	834,875			MEAN 2,287	MAX 9,420	MIN 766	AC-FT 1,656,000					

13-3050. Lemhi River near Lemhi, Idaho

LOCATION.--Lat 44°56'24", long 113°38'16", in NW¼NE¼ sec.32, T.19 N., R.24 E., Lemhi County, on right bank 35 ft upstream from bridge on State Highway 28, 1.4 miles south of Tendoy, 1.8 miles upstream from Agency Creek, 6.2 miles north of Lemhi, and at mile 28.3.

DRAINAGE AREA.--895 sq mi, approximately.

PERIOD OF RECORD.--November 1938 to August 1939, April 1955 to September 1963, water years 1964-67 (annual maximum), August 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,960 ft (from topographic map). Prior to Aug. 27, 1967, at site 1.5 miles upstream at different datum. November 1938 to August 1939, nonrecording gage, Apr. 29, 1955, to Sept. 30, 1963, nonrecording gage and supplemental crest-stage gage, Oct. 1, 1963, to Aug. 26, 1967, crest-stage gage only.

AVERAGE DISCHARGE.--10 years (1955-63, 1967-69), 262 cfs (189,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 1,280 cfs Mar. 30 (gage height, 5.11 ft); minimum, 67 cfs Aug. 29 (gage height, 2.60 ft).

Period of record: Maximum discharge, 1,840 cfs probably June 7, 1957 (gage height, 4.48 ft, site and datum then in use, from crest-stage gage); minimum, 63 cfs Aug. 25, 1967 (gage height, 2.56 ft).

REMARKS.--Records fair except those for April to September, which are poor. State Fish Hatchery on Hayden Creek several miles upstream since fall of 1966 may affect maximums and minimums. Many diversions for irrigation above station.

REVISIONS (WATER YEARS).--WSP 1397: 1939.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 2, May 18 to June 12, July 9 to Aug. 22; stage-discharge relation affected by ice Dec. 14-15, 19-24, Dec. 29 to Jan. 2, Jan. 9-11, 17, Jan. 23 to Feb. 6, Feb. 8-9, 20, 22, Mar. 9, 12-13)

2.5	66	3.6	260
2.7	83	4.0	433
3.0	116	4.4	662
3.3	169	4.7	892

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	348	306	275	230	220	222	705	344	418	275	122	74
2	327	298	268	250	230	219	630	327	375	242	110	75
3	302	302	271	236	210	222	649	306	362	216	104	75
4	302	339	275	236	210	222	586	314	384	210	104	76
5	306	344	275	239	210	222	569	318	428	204	104	76
6	310	331	268	253	220	228	598	323	449	216	106	76
7	318	323	250	264	225	225	569	335	454	314	101	76
8	323	323	268	236	215	210	454	344	423	302	99	74
9	327	352	260	230	220	210	438	352	423	271	98	75
10	323	348	264	298	219	204	459	344	423	264	91	79
11	314	348	271	220	219	201	464	348	399	239	89	90
12	310	357	264	253	219	205	464	344	348	219	90	97
13	306	344	232	253	219	210	475	348	352	210	92	103
14	318	294	245	264	213	213	469	357	339	192	90	111
15	323	287	250	256	216	219	413	380	335	174	88	115
16	314	294	260	228	222	225	389	352	327	167	85	115
17	306	268	253	240	219	279	389	348	283	161	82	116
18	318	283	253	242	213	268	408	399	253	143	83	119
19	314	294	220	246	216	239	404	469	236	130	84	120
20	314	294	210	253	215	246	389	449	236	117	83	137
21	323	294	200	298	216	256	399	380	253	115	76	174
22	323	302	200	306	220	264	418	339	250	107	70	172
23	318	310	210	220	219	268	469	352	239	103	70	169
24	314	302	298	200	219	250	534	399	314	95	72	169
25	310	306	246	200	225	256	480	459	344	98	73	163
26	310	290	242	210	222	310	433	507	335	103	71	152
27	314	302	239	220	216	449	408	529	344	107	70	143
28	314	287	239	225	222	557	384	449	335	112	69	141
29	310	253	230	210	-----	636	375	389	323	117	68	144
30	314	279	220	200	-----	835	357	449	302	122	68	141
31	310	-----	220	200	-----	876	-----	469	-----	126	70	-----
TOTAL	9,783	9,254	7,676	7,416	6,109	9,446	14,178	11,822	10,286	5,471	2,682	3,447
MEAN	316	308	248	239	218	305	473	381	343	176	86.5	115
MAX	348	357	298	306	230	876	705	529	454	314	122	174
MIN	302	253	200	200	210	201	357	306	236	95	68	74
AC-FT	19,400	18,360	15,230	14,710	12,120	18,740	28,120	23,450	20,400	10,850	5,320	6,840

CAL YR 1968: TOTAL 96,312
WTR YR 1969: TOTAL 97,570

MEAN 263
MEAN 267

MAX 953
MAX 876

MIN 102
MIN 68

AC-FT 191,000
AC-FT 193,500

SALMON RIVER BASIN

13-3065. Panther Creek near Shoup, Idaho

LOCATION.--Lat 45°18'22", long 114°23'31", in sec.19, T.23 N., R.18 E., Lemhi County, Salmon National Forest, on right bank 100 ft downstream from bridge on private road, at mile 1.0, and 7 miles southwest of Shoup.

DRAINAGE AREA.--529 sq mi. Mean altitude, 7,030 ft.

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,264.96 ft above mean sea level, unadjusted (planetable survey). Prior to Nov. 6, 1959, nonrecording gage 75 ft upstream at datum 0.94 ft higher.

AVERAGE DISCHARGE.--25 years, 248 cfs (179,700 acre-ft per year); 15-year base period (1952-67), 250 cfs.

EXTREMES.--Current year: Maximum discharge, 1,620 cfs May 20 (gage height, 4.30 ft); minimum daily, 60 cfs Dec. 13.

Period of record: Maximum discharge observed, 2,740 cfs May 25, 1956 (gage height, 5.24 ft, present datum); maximum gage height observed, 5.65 ft June 12, 1965; minimum discharge observed, 22 cfs Nov. 17, 1958 (gage height, 0.57 ft, present datum).

REMARKS.--Records good except those for December to February, which are poor. Diversions for irrigation of about 1,000 acres (1950 determination) above station.

REVISIONS (WATER YEARS).--WSP 1063: 1945.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 20-23; stage-discharge relation affected by ice Nov. 14-19, 25, Nov. 30 to Dec. 6, Dec. 8-12, 14-20, Dec. 22 to Jan. 20, Jan. 24 to Feb. 24, Feb. 27 to Mar. 4, 7-14)

Oct. 1 to Apr. 23				Apr. 24 to Sept. 30			
0.8	56	2.0	351	1.0	80	3.0	763
1.0	85	2.5	569	1.5	178	4.0	1,410
1.5	190			2.0	327	5.0	2,160

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	113	80	100	92	72	185	360	940	299	144	94
2	140	106	80	108	96	70	193	342	857	289	138	93
3	136	117	84	100	90	74	217	327	823	276	134	90
4	132	123	87	100	90	74	217	327	806	266	132	90
5	129	121	87	100	90	77	252	360	823	257	128	90
6	127	112	83	108	92	79	328	436	840	282	128	90
7	129	100	75	112	95	72	321	564	801	503	128	90
8	127	100	82	105	90	64	256	738	738	411	126	86
9	123	140	80	100	92	64	252	898	688	360	124	85
10	125	123	80	95	92	62	262	1,060	655	331	122	90
11	123	123	84	95	92	62	282	1,190	604	310	120	94
12	123	134	80	105	92	64	278	1,280	542	292	122	94
13	140	127	60	115	92	66	306	1,350	503	282	120	94
14	138	90	90	110	90	70	282	1,420	461	273	116	91
15	134	82	95	105	90	77	259	1,440	432	260	112	88
16	129	90	100	94	90	79	243	1,340	403	251	110	88
17	119	85	98	94	90	85	259	1,300	376	239	109	86
18	129	100	98	96	82	88	288	1,380	360	227	107	85
19	127	115	95	98	80	83	282	1,540	346	219	105	86
20	125	121	85	100	82	80	265	1,520	349	214	103	93
21	125	113	64	104	80	80	272	1,330	360	208	100	103
22	123	115	61	108	80	87	355	1,230	327	200	98	98
23	123	110	75	69	80	92	531	1,250	334	190	96	94
24	123	100	90	70	80	77	674	1,360	419	186	94	96
25	119	100	90	82	83	85	582	1,430	387	183	93	100
26	121	97	105	85	80	95	495	1,470	372	176	94	96
27	115	106	105	90	74	104	428	1,420	360	169	93	93
28	119	99	105	92	76	112	403	1,240	360	164	93	93
29	117	68	100	87	-----	115	407	1,100	338	160	93	91
30	117	82	95	85	-----	140	380	1,140	320	153	93	91
31	117	-----	90	85	-----	165	-----	1,080	-----	147	94	-----
TOTAL	3,916	3,212	2,683	2,997	2,432	2,614	9,754	33,222	15,924	7,777	3,469	2,752
MEAN	126	107	86.5	96.7	86.9	84.3	325	1,072	531	251	112	91.7
MAX	142	140	105	115	96	165	674	1,540	940	503	144	103
MIN	115	68	60	69	74	62	185	327	320	147	93	85
CFSM	.24	.20	.16	.18	.16	.16	.61	2.03	1.00	.47	.21	.17
IN.	.28	.23	.19	.21	.17	.18	.69	2.34	1.12	.55	.24	.19
AC-FT	7,770	6,370	5,320	5,940	4,820	5,180	19,350	65,900	31,590	15,430	6,880	5,460

CAL YR 1968: TOTAL 72,836 MEAN 199 MAX 1,170 MIN 50 CFSM .38 IN 5.12 AC-FT 144,500
WTR YR 1969: TOTAL 90,752 MEAN 249 MAX 1,540 MIN 60 CFSM .47 IN 6.38 AC-FT 180,000

PEAK DISCHARGE (BASE, 1,200 CFS).--May 20 (0300) 1,620 cfs (4.30 ft).

13-3070. Salmon River near Shoup, Idaho

LOCATION.--Lat 45°19'20", long 114°26'23", in NE¼SW¼ sec.14, T.23 N., R.17 E., Lemhi County, Salmon National Forest, on right bank 0.6 mile upstream from Owl Creek, 2.3 miles downstream from Panther Creek, 9 miles southwest of Shoup, and at mile 207.8.

DRAINAGE AREA.--6,270 sq mi, approximately. Mean altitude, 7,140 ft.

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,153.7 ft above mean sea level, unadjusted. Prior to Sept. 18, 1951, nonrecording gage at different sites approximately 1.3 miles upstream at different datums.

AVERAGE DISCHARGE.--25 years, 2,975 cfs (2,155,000 acre-ft per year); 15-year base period (1952-67), 2,941 cfs.

EXTREMES.--Current year: Maximum discharge, 13,300 cfs May 28 (gage height, 8.68 ft); minimum, 1,090 cfs Aug. 30, Sept. 4, 5 (gage height, 1.99 ft).

Period of record: Maximum discharge, 24,900 cfs May 26, 1956 (gage height, 13.00 ft); minimum, 710 cfs Aug. 20, 21, 1966.

REMARKS.--Records good except those for January and February, which are fair. Diversions for irrigation of about 88,000 acres (1948 determination) above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 31 to June 7; stage-discharge relation affected by ice Dec. 30 to Jan. 4, Jan. 9-12, 22-28, Jan. 31 to Feb. 8)

2.0	1,090	5.0	5,230
3.0	2,200	7.0	9,200
4.0	3,560	9.0	13,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,300	2,050	1,860	1,550	1,400	1,470	3,770	4,480	11,100	4,380	1,980	1,160
2	2,250	2,040	1,900	1,900	1,350	1,480	3,470	4,230	10,200	4,110	1,930	1,140
3	2,210	2,040	1,830	1,850	1,350	1,520	3,490	4,010	9,560	3,830	1,890	1,130
4	2,170	2,100	1,860	1,800	1,400	1,520	3,510	3,890	9,270	3,670	1,850	1,110
5	2,150	2,190	1,960	1,850	1,450	1,560	3,480	3,870	9,600	3,530	1,760	1,110
6	2,130	2,140	1,920	1,900	1,530	1,540	3,810	4,120	10,300	3,510	1,690	1,120
7	2,120	2,000	1,800	2,100	1,650	1,550	4,260	4,780	10,600	4,580	1,670	1,130
8	2,100	1,950	1,720	2,000	1,760	1,520	3,970	5,760	10,400	5,190	1,600	1,120
9	2,090	2,140	1,770	1,900	1,770	1,460	3,610	6,780	9,850	4,680	1,540	1,130
10	2,090	2,250	1,870	1,600	1,730	1,390	3,650	7,800	9,970	4,370	1,520	1,150
11	2,080	2,280	1,890	1,780	1,820	1,390	3,940	8,790	9,480	4,120	1,500	1,190
12	2,080	2,220	1,900	1,980	1,810	1,400	4,040	9,560	8,800	3,830	1,460	1,200
13	2,100	2,310	1,680	2,120	1,880	1,450	4,160	10,100	8,230	3,670	1,500	1,350
14	2,350	2,290	1,610	2,290	1,760	1,490	4,280	10,700	7,650	3,510	1,450	1,440
15	2,470	2,080	1,510	2,390	1,650	1,530	4,120	11,800	7,120	3,380	1,450	1,460
16	2,380	2,010	1,740	2,090	1,620	1,590	3,910	11,800	6,730	3,240	1,410	1,450
17	2,310	2,020	1,850	1,800	1,600	1,710	3,770	11,200	6,250	3,080	1,370	1,470
18	2,280	2,020	1,790	1,700	1,520	2,340	3,940	11,200	5,780	2,940	1,350	1,460
19	2,250	2,080	1,630	1,870	1,450	2,070	4,160	12,100	5,420	2,820	1,350	1,460
20	2,240	2,110	1,580	2,030	1,380	1,840	4,190	12,500	5,320	2,680	1,340	1,500
21	2,210	2,110	1,560	2,240	1,410	1,910	4,150	11,800	5,440	2,550	1,310	1,740
22	2,200	2,100	1,570	3,600	1,500	1,930	4,380	10,800	5,280	2,440	1,270	1,810
23	2,180	2,090	1,660	2,300	1,680	1,890	5,370	10,400	5,210	2,360	1,230	1,800
24	2,170	2,090	1,710	1,500	1,710	1,800	6,780	10,900	5,490	2,280	1,200	1,790
25	2,150	2,070	1,930	1,250	1,650	1,750	6,830	11,700	5,930	2,230	1,180	1,800
26	2,130	2,000	2,110	1,400	1,600	1,810	5,990	12,500	5,870	2,150	1,170	1,820
27	2,100	1,970	1,990	1,700	1,560	2,230	5,360	13,200	5,490	2,120	1,150	1,790
28	2,070	1,950	1,930	1,860	1,480	2,840	4,980	13,000	5,190	2,100	1,130	1,780
29	2,060	1,890	1,810	1,780	-----	2,990	4,810	12,000	4,930	2,120	1,120	1,740
30	2,050	1,870	1,650	1,560	-----	3,070	4,700	11,200	4,630	2,070	1,110	1,710
31	2,060	-----	1,450	1,400	-----	3,550	-----	11,300	-----	2,010	1,140	-----
TOTAL	67,530	62,460	55,040	59,090	44,470	57,590	130,880	288,270	225,090	99,550	44,640	43,140
MEAN	2,178	2,082	1,775	1,906	1,588	1,858	4,363	9,299	7,503	3,211	1,440	1,438
MAX	2,470	2,310	2,110	3,600	1,880	3,550	6,830	13,200	11,100	5,190	1,980	1,820
MIN	2,050	1,870	1,450	1,250	1,350	1,390	3,470	3,870	4,630	2,010	1,110	1,110
AC-FT	133,900	123,900	109,200	117,200	88,210	114,200	259,600	571,800	446,500	197,500	88,540	85,570
CAL YR 1968: TOTAL	939,030			MEAN 2,566	MAX 9,660	MIN 1,220	AC-FT 1,863,000					
WTR YR 1969: TOTAL	1,177,750			MEAN 3,227	MAX 13,200	MIN 1,110	AC-FT 2,336,000					

13-3085. Middle Fork Salmon River near Cape Horn, Idaho

LOCATION.--Lat 44°24'30", long 115°10'20", in NW¼ sec.3, T.12 N., R.11 E., Custer County, Challis National Forest, on left bank 1,100 ft downstream from Little Beaver Creek, 0.5 mile downstream from confluence of Marsh and Beaver Creeks, 2 miles northwest of Cape Horn, and at mile 110.3.

DRAINAGE AREA.--138 sq mi. Mean altitude, 7,370 ft.

PERIOD OF RECORD.--September 1928 to current year. 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.--41 years, 238 cfs (23.42 inches per year, 172,400 acre-ft per year); 15-year base period (1952-67), 250 cfs.

EXTREMES.--Current year: Maximum discharge, 1,950 cfs May 26 (gage height, 5.92 ft); minimum, 43 cfs Mar. 21 (gage height, 2.25 ft).

Period of record: Maximum discharge, 2,980 cfs May 24, 1956 (gage height, 6.96 ft); minimum recorded, 31 cfs Apr. 14, 1945 (gage height, 2.12 ft).

REMARKS.--Records good except those for December to March, which are poor. No diversion above station.

REVISIONS.--WSP 738: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Nov. 15-16, 25-27, Nov. 29 to Dec. 3, Dec. 6-24,
Dec. 31 to Jan. 3, Mar. 12-17)

2.3	48	4.0	560
2.5	80	5.0	1,140
3.0	190	6.0	1,940
3.5	350		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	106	94	86	84	69	82	390	1,400	358	150	96
2	104	102	94	94	83	66	85	382	1,340	346	147	96
3	102	110	99	82	84	68	93	386	1,360	332	145	96
4	102	112	98	86	80	66	94	410	1,440	321	140	96
5	100	94	94	92	84	66	104	494	1,530	325	136	98
6	98	87	91	105	83	65	122	620	1,520	394	136	96
7	93	93	88	120	82	64	131	760	1,450	430	133	96
8	96	93	98	102	80	64	129	940	1,340	358	129	94
9	96	152	96	102	82	64	145	1,120	1,320	321	127	98
10	98	110	98	107	80	61	164	1,270	1,200	304	125	122
11	100	116	95	103	80	62	177	1,380	1,120	290	125	133
12	177	169	87	100	80	62	196	1,470	1,010	277	125	118
13	185	131	65	110	80	62	212	1,510	928	267	122	118
14	150	103	97	108	74	62	212	1,650	850	264	120	110
15	142	125	97	100	79	62	210	1,650	778	254	114	106
16	133	120	96	95	78	62	215	1,540	715	245	112	106
17	120	114	91	96	75	63	236	1,540	665	236	110	104
18	122	110	91	97	72	63	274	1,620	625	227	110	104
19	114	110	89	97	71	62	274	1,690	600	221	108	116
20	114	106	71	96	70	66	274	1,570	595	215	106	133
21	114	104	70	103	73	63	304	1,410	560	210	104	125
22	114	112	77	97	71	63	374	1,410	510	207	104	112
23	114	104	85	80	71	65	474	1,480	515	196	102	112
24	114	96	93	74	73	62	494	1,620	570	193	100	125
25	112	105	92	84	74	63	442	1,750	520	190	98	114
26	110	100	97	105	70	66	410	1,850	478	182	98	108
27	106	105	84	92	68	68	390	1,790	453	177	96	106
28	106	94	77	86	67	66	402	1,570	438	174	98	104
29	106	90	72	83	-----	68	422	1,450	410	169	98	100
30	112	105	68	83	-----	75	406	1,530	386	164	96	100
31	110	-----	71	83	-----	80	-----	1,500	-----	157	96	-----
TOTAL	3,575	3,283	2,705	2,938	2,148	2,018	7,547	39,752	26,631	8,004	3,610	3,242
MEAN	115	109	87.3	94.8	76.7	65.1	252	1,282	888	258	116	108
MAX	185	169	99	120	84	80	494	1,850	1,530	430	150	133
MIN	96	87	65	74	67	61	82	382	386	157	96	94
CFSM	.84	.79	.63	.69	.56	.47	1.82	9.29	6.43	1.87	.84	.78
IN.	.96	.88	.73	.79	.58	.54	2.03	10.71	7.18	2.16	.97	.87
AC-FT	7,090	6,510	5,370	5,830	4,260	4,000	14,970	78,850	52,820	15,880	7,160	6,430

CAL YR 1968: TOTAL 74,043 MEAN 202 MAX 1,210 MIN 50 CFSM 1.47 IN 19.95 AC-FT 146,900
WTR YR 1969: TOTAL 105,453 MEAN 289 MAX 1,850 MIN 61 CFSM 2.09 IN 28.42 AC-FT 209,200

PEAK DISCHARGE (BASE, 930 CFS).--May 26 (2400) 1,950 cfs (5.92 ft).

NOTE.--No gage-height record Jan. 4 to Mar. 11.

13-3107. South Fork Salmon River near Krassel ranger station, Idaho

LOCATION.--Lat 44°59'30", long 115°43'30", in NE¼ sec.16, T.19 N., R.6 E., Valley County, Payette National Forest, on right bank 0.6 mile upstream from Fittum Creek, 1.4 miles downstream from Krassel ranger station, 2 miles upstream from mouth of East Fork of South Fork Salmon River, 20 miles east of McCall, and at mile 39.2.

DRAINAGE AREA.--330 sq mi, approximately.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,750 ft (from topographic map).

EXTREMES.--Current year: Maximum discharge, 3,740 cfs May 15 (gage height, 7.38 ft); minimum daily, 111 cfs Sept. 9; minimum gage height, 1.76 ft Dec. 21, Sept. 10.

Period of record: Maximum discharge, 3,840 cfs May 24, 1967 (gage height, 7.75 ft); minimum, 81 cfs Nov. 9, 1966 (gage height, 1.58 ft).

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 11-31, June 5, 6; stage-discharge relation affected by ice Dec. 1-2, 7-8, 13-14, 20-24, Dec. 30 to Jan. 1, Jan. 3, 8-9, Jan. 24 to Feb. 2, Feb. 4-5, 8, 14-15, 18-22, Mar. 10-16)

1.8	109	4.0	940
2.0	148	5.0	1,590
2.5	280	6.0	2,340
3.0	455	8.0	4,070

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	199	200	305	280	189	601	1,070	2,500	688	207	120
2	146	192	210	246	270	184	619	1,010	2,390	651	199	118
3	142	194	215	190	268	189	717	982	2,440	628	194	117
4	142	210	215	180	235	189	679	988	2,640	596	192	113
5	138	194	217	197	245	194	773	1,110	2,900	574	187	115
6	138	175	189	312	240	197	1,000	1,280	2,870	548	184	117
7	136	177	165	330	226	187	1,020	1,550	2,670	565	182	115
8	136	187	225	300	215	187	865	1,880	2,460	513	182	113
9	136	252	207	270	215	184	848	2,260	2,360	488	175	111
10	136	264	207	261	210	165	946	2,630	2,180	463	170	113
11	138	249	212	249	210	165	952	2,900	1,960	444	170	130
12	229	574	194	243	217	170	1,010	3,040	1,760	428	172	132
13	325	425	120	332	215	180	1,110	3,120	1,620	406	166	132
14	246	283	205	451	195	180	1,090	3,480	1,510	391	163	122
15	223	306	252	384	200	185	1,040	3,550	1,370	373	159	117
16	210	296	246	315	204	185	982	3,060	1,280	356	155	117
17	192	274	189	299	199	199	1,050	2,880	1,180	342	152	115
18	187	277	182	280	190	212	1,230	3,020	1,120	332	150	113
19	184	271	182	277	190	204	1,200	3,360	1,070	322	148	124
20	184	264	145	274	190	199	1,100	3,210	1,040	309	144	152
21	192	252	120	425	205	207	1,100	2,780	1,020	299	140	182
22	182	312	160	459	202	226	1,320	2,680	917	286	136	142
23	180	322	220	315	189	240	1,600	2,800	911	277	134	130
24	182	280	260	250	184	217	1,750	3,140	1,190	268	130	148
25	184	274	232	290	187	223	1,530	3,420	1,070	261	126	148
26	189	237	199	380	184	246	1,360	3,510	928	252	126	134
27	187	249	184	338	175	293	1,230	3,370	860	246	126	130
28	182	226	170	312	184	315	1,190	2,730	848	237	124	126
29	182	202	184	280	-----	359	1,230	2,520	794	226	124	122
30	220	240	170	270	-----	432	1,140	2,850	748	217	124	130
31	223	-----	200	280	-----	543	-----	2,810	-----	215	122	-----
TOTAL	5,621	7,857	6,076	9,344	5,924	7,045	32,282	79,040	48,606	12,201	4,863	3,798
MEAN	181	262	196	301	212	227	1,076	2,550	1,620	394	157	127
MAX	325	574	260	459	280	543	1,750	3,550	2,900	688	207	182
MIN	136	175	120	180	175	165	601	982	748	215	122	111
CFSM	.55	.74	.59	.91	.64	.69	3.26	7.73	4.91	1.19	.48	.38
IN.	.63	.89	.68	1.05	.67	.79	3.64	8.91	5.48	1.38	.55	.43
AC-FT	11,150	15,580	12,050	18,530	11,750	13,970	64,030	156,800	96,410	24,200	9,650	7,530

CAL YR 1968: TOTAL 158,497 MEAN 433 MAX 2,360 MIN 96 CFSM 1.31 IN 17.86 AC-FT 314,400
WTR YR 1969: TOTAL 222,657 MEAN 610 MAX 3,550 MIN 111 CFSM 1.85 IN 25.09 AC-FT 441,600

PEAK DISCHARGE (BASE, 1,500 CFS).--Apr. 24 (0530) 1,840 cfs (5.35 ft); May 15 (0030) 3,740 cfs (7.38 ft).

SALMON RIVER BASIN

13-3130. Johnson Creek at Yellow Pine, Idaho

LOCATION.--Lat 44°57'44", long 115°29'58", in NE¼ sec.29, T.19 N., R.8 E., Valley County, Payette National Forest, on right bank 700 ft upstream from mouth and 0.2 mile southwest of Yellow Pine.

DRAINAGE AREA.--213 sq mi. Mean altitude, 7,170 ft.

PERIOD OF RECORD.--August 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,657.70 ft above mean sea level.

AVERAGE DISCHARGE.--41 years, 343 cfs (21.87 inches per year, 248,500 acre-ft per year); 15-year base period (1952-67), 371 cfs.

EXTREMES.--Current year: Maximum discharge, 3,200 cfs May 25 (gage height, 6.06 ft); minimum, 46 cfs Dec. 13 (gage height, 0.98 ft).

Period of record: Maximum discharge, 5,440 cfs May 27, 1956 (gage height, 7.64 ft); minimum, 21 cfs Nov. 30, 1954 (gage height, 0.66 ft).

REMARKS.--Records good. Small diversion from Johnson Creek basin to Deadwood River basin (see REMARKS for sta 13-2360).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.1	60	3.0	671
1.5	131	4.0	1,290
2.0	261	5.0	2,120
2.5	441	6.0	3,070

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	128	101	100	103	94	141	513	2,020	496	134	83
2	92	122	102	98	102	91	149	486	1,970	450	130	79
3	90	125	111	92	105	92	169	488	2,040	430	127	76
4	89	131	113	98	100	91	174	505	2,200	412	124	77
5	87	111	110	106	105	91	204	615	2,310	387	120	80
6	86	93	99	138	106	91	243	782	2,240	385	117	81
7	87	109	92	149	105	90	249	1,000	2,080	407	116	81
8	86	114	111	129	102	90	252	1,270	1,900	355	113	80
9	85	141	103	127	104	90	271	1,540	1,920	335	111	78
10	87	135	109	129	102	84	310	1,790	1,760	316	108	90
11	87	151	107	127	101	87	321	2,000	1,510	294	106	102
12	132	205	99	125	103	89	345	2,090	1,350	280	108	101
13	194	174	68	138	102	89	381	2,160	1,240	265	104	89
14	151	121	106	134	94	89	364	2,610	1,130	252	102	85
15	137	138	106	125	102	89	351	2,630	1,040	245	101	81
16	129	133	108	113	101	89	341	2,290	970	230	97	79
17	116	130	98	116	98	92	374	2,300	885	220	94	78
18	125	137	98	117	92	94	437	2,520	835	212	94	78
19	113	133	96	118	91	91	435	2,800	792	205	94	83
20	120	128	76	117	90	89	411	2,430	770	197	91	104
21	111	126	73	130	97	90	430	2,130	744	190	90	120
22	116	142	90	121	94	93	555	2,210	672	182	89	97
23	112	129	101	94	94	92	685	2,410	684	177	88	90
24	117	116	105	82	96	89	739	2,670	834	172	87	108
25	122	126	104	100	96	90	647	2,870	748	169	84	103
26	131	110	100	133	95	94	584	2,910	647	164	81	91
27	123	121	97	115	90	99	537	2,680	607	159	82	86
28	123	112	92	108	92	102	535	2,190	618	155	83	83
29	124	96	85	102	-----	106	582	2,050	590	149	84	81
30	141	121	76	102	-----	118	551	2,500	546	144	82	86
31	141	-----	81	102	-----	133	-----	2,290	-----	139	82	-----
TOTAL	3,549	3,858	3,017	3,585	2,762	2,908	11,767	59,729	37,652	8,173	3,123	2,630
MEAN	114	129	97.3	116	98.6	93.8	392	1,927	1,255	264	101	87.7
MAX	194	205	113	149	106	133	739	2,910	2,310	496	134	120
MIN	85	93	68	82	90	84	141	486	546	139	81	76
CFSM	.54	.60	.46	.54	.46	.44	1.84	9.05	5.89	1.24	.47	.41
IN.	.62	.67	.53	.63	.48	.51	2.05	10.43	6.57	1.43	.55	.46
AC-FT	7,040	7,650	5,980	7,110	5,480	5,770	23,340	118,500	74,680	16,210	6,190	5,220
CAL YR 1968: TOTAL	96,732			MEAN 264		MAX 1,910	MIN 53	CFSM 1.24	IN 16.89	AC-FT 191,900		
WTR YR 1969: TOTAL	142,753			MEAN 391		MAX 2,910	MIN 68	CFSM 1.84	IN 24.92	AC-FT 283,100		

PEAK DISCHARGE (BASE, 1,800 CFS).--May 25 (2400) 3,200 cfs (6.06 ft).

13-3165. Little Salmon River at Riggins, Idaho

LOCATION.--Lat 45°24'47", long 116°19'29", SE¼SW¼ sec.15, T.24 N., R.1 E., Idaho County, on right bank 250 ft upstream from highway bridge, at mile 0.5, and 0.8 mile southwest of Riggins.

DRAINAGE AREA.--576 sq mi. Mean altitude, 5,430 ft.

PERIOD OF RECORD.--February 1951 to February 1955, September 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,760 ft (from topographic map). Prior to Feb. 25, 1966, at datum 5.00 ft higher.

AVERAGE DISCHARGE.--16 years (1951-54, 1956-69), 821 cfs (594,800 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 5,280 cfs May 25 (gage height, 9.88 ft); minimum, 159 cfs Sept. 2, 3 (gage height, 3.86 ft).

Period of record: Maximum discharge, 6,720 cfs May 20, 1958; maximum gage height, 12.39 ft (present datum) June 13, 1953; minimum discharge observed, 110 cfs Oct. 25, 1961 (gage height, 5.41 ft, present datum).

Flood about June 1, 1948, reached an undetermined stage (discharge, 9,200 cfs by slope-area measurement).

REMARKS.--Records good. Diversions for irrigation of about 13,600 acres (1948 determination) above station.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 17 to Mar. 12)

3.8	152	6.0	1,150
4.0	202	7.0	1,890
4.5	368	8.0	2,840
5.0	590	9.3	4,390

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	270	331	356	323	474	328	1,380	1,640	3,220	954	280	177
2	274	323	345	321	461	328	1,590	1,520	3,120	907	274	171
3	271	324	338	295	444	325	1,730	1,400	3,380	876	270	164
4	270	320	345	294	420	328	1,800	1,400	3,620	826	264	168
5	269	306	345	304	409	341	1,890	1,580	3,700	787	258	177
6	267	285	334	383	410	335	2,420	1,830	3,840	747	253	176
7	265	291	304	457	397	337	2,230	2,190	3,700	715	248	176
8	264	299	334	444	381	333	1,820	2,800	3,290	677	246	174
9	260	405	319	421	385	323	1,740	3,230	3,230	646	241	171
10	259	435	330	404	372	312	1,790	3,580	2,810	622	235	167
11	263	395	455	394	369	321	1,750	3,820	2,560	596	230	168
12	638	829	456	376	398	324	1,740	3,910	2,200	573	231	184
13	644	717	301	538	406	333	1,830	3,900	2,030	553	226	192
14	490	548	321	821	378	343	1,840	4,090	1,890	523	222	186
15	448	492	347	754	385	339	1,760	3,870	1,730	498	215	182
16	424	458	439	664	386	341	1,690	3,500	1,610	471	209	180
17	380	429	409	599	367	350	1,760	3,530	1,480	449	210	175
18	364	426	367	556	347	373	2,010	3,800	1,390	428	212	176
19	335	417	333	525	344	378	2,070	4,010	1,340	410	204	195
20	333	413	291	505	353	380	1,870	3,760	1,480	390	200	229
21	333	430	261	526	350	392	1,750	3,370	1,400	373	196	251
22	329	541	287	556	353	424	1,970	3,400	1,190	358	191	232
23	318	544	309	488	341	459	2,500	3,620	1,290	342	194	219
24	320	462	332	437	333	455	2,670	4,000	1,840	323	189	236
25	325	453	342	472	338	468	2,330	4,220	1,540	319	188	230
26	339	411	345	605	338	505	1,990	4,380	1,270	314	185	217
27	325	404	334	628	320	577	1,810	3,900	1,210	310	177	209
28	316	389	310	610	314	652	1,760	3,190	1,270	302	178	205
29	324	370	289	566	-----	748	1,780	3,040	1,160	296	177	202
30	360	371	239	532	-----	867	1,740	3,790	1,030	287	174	202
31	359	-----	264	502	-----	1,080	-----	3,650	-----	285	178	-----
TOTAL	10,636	12,818	10,381	15,300	10,573	13,399	57,010	99,920	64,820	16,157	6,755	5,791
MEAN	343	427	335	494	378	432	1,900	3,223	2,161	521	218	193
MAX	644	829	456	821	474	1,080	2,670	4,380	3,840	954	280	251
MIN	259	285	239	294	314	312	1,380	1,400	1,030	285	174	164
AC-FT	21,100	25,420	20,590	30,350	20,970	26,580	113,100	198,200	128,600	32,050	13,400	11,490
CAL YR 1968: TOTAL	249,419			MEAN 681	MAX 3,640	MIN 169	AC-FT 494,700					
WTR YR 1969: TOTAL	323,560			MEAN 886	MAX 4,380	MIN 164	AC-FT 641,800					

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
4-6	1245	7.80	2,610	5-25	2300	9.88	5,280
4-23	2245	7.93	2,780				

SALMON RIVER BASIN

13-3168. North Fork Skookumchuck Creek near White Bird, Idaho

LOCATION.--Lat 45°43'34", long 116°12'16", in NE¼NE¼ sec.33, T.28 N., R.2 E., Idaho County, Nez Perce National Forest, on right bank 22 ft upstream from 8-foot corrugated metal pipe culvert, 2.7 miles upstream from confluence with South Fork Skookumchuck Creek, and 5.2 miles southeast of White Bird.

DRAINAGE AREA.--15.3 sq mi. Mean altitude, 5,000 ft.

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,240 ft (revised) (from topographic map). Prior to Nov. 19, 1965, at site 118 ft downstream at different datum.

AVERAGE DISCHARGE.--10 years, 17.0 cfs (12,320 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 133 cfs Apr. 23 (gage height, 4.90 ft); minimum, 1.2 cfs Sept. 9, 10 (gage height, 2.23 ft).
Period of record: Maximum discharge, 471 cfs June 8, 1964 (gage height, 4.46 ft, site and datum then in use), from rating curve extended above 160 cfs on basis of contracted-opening measurement of peak flow; minimum daily, 0.2 cfs several days in 1960, 1961, and 1964.

REMARKS.--Records good except those for January, which are poor. Ditch bypassing station diverts from left bank 0.2 mile upstream from station. Results of measurements or field estimates, in cubic feet per second, of ditch bypassing station, made October 1968 to September 1969, are given below.

Oct. 6, 1968.....	0.05	Feb. 22.....	0.53	June 13.....	0.30
26.....	.59	Mar. 28.....	1.45	July 27.....	.20
Nov. 19.....	.75	Apr. 5.....	2.36	Aug. 11.....	.10
Jan. 17, 1969.....	.93	May 10.....	.67	Sept. 20.....	.57

REVISIONS.--WRD Idaho 1967: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 15 to Aug. 6, Aug. 23 to Sept. 30; stage-discharge relation affected by ice Jan. 24, 25, Feb. 1-5, 28)

2.1	1.2	3.5	41
2.3	2.9	4.0	70
2.5	6.0	4.5	103
3.0	20	4.8	125

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	17	7.0	9.6	7.4	81	60	37	19	3.3	1.4
2	11	15	16	7.3	9.2	7.6	76	52	33	18	3.3	1.4
3	10	14	15	6.7	9.0	8.5	78	46	30	17	3.2	1.4
4	9.7	13	14	6.6	8.8	8.7	63	41	28	15	3.2	1.4
5	8.7	13	13	7.6	8.5	8.7	62	40	26	14	3.2	1.4
6	7.6	12	12	10	8.2	8.5	82	46	23	13	3.0	1.4
7	6.6	11	12	14	8.0	8.0	70	60	21	11	3.2	1.4
8	6.2	11	11	14	7.6	7.4	56	77	19	10	3.0	1.4
9	5.9	20	11	13	7.4	7.2	49	90	18	9.4	3.0	1.3
10	5.5	25	12	13	7.0	6.8	56	103	17	8.7	3.0	1.3
11	5.7	26	17	12	6.8	6.6	60	111	15	8.0	3.0	1.4
12	8.2	32	20	12	7.2	6.8	60	111	14	7.6	2.9	1.5
13	23	33	18	23	7.2	7.0	65	110	12	7.2	2.9	1.7
14	26	30	16	48	7.0	7.6	61	104	11	7.0	2.8	1.7
15	22	27	15	35	7.2	8.2	53	103	9.7	6.4	2.7	1.6
16	18	24	14	24	7.2	8.7	45	88	9.0	6.0	2.6	1.5
17	15	22	13	21	7.4	9.9	44	77	8.2	5.9	2.5	1.4
18	14	20	12	19	7.4	14	62	76	7.8	5.4	2.5	1.4
19	13	20	11	18	7.8	15	64	81	7.4	5.2	2.2	1.4
20	13	20	9.2	17	8.0	15	59	83	7.6	5.0	1.8	1.6
21	14	20	7.6	16	8.0	16	56	71	7.2	4.9	1.8	1.7
22	14	23	7.2	13	7.7	19	72	64	6.8	4.5	1.8	1.9
23	14	25	7.8	11	7.4	19	113	62	9.4	4.4	1.7	1.8
24	14	26	8.7	9.0	7.2	17	123	62	22	4.4	1.7	1.7
25	14	25	9.0	8.6	7.2	16	92	60	20	4.2	1.6	2.2
26	16	23	8.2	11	7.2	18	72	56	18	3.9	1.5	2.2
27	15	21	7.6	12	7.0	23	60	52	19	3.8	1.5	1.8
28	15	20	7.0	12	7.2	27	55	43	22	3.6	1.5	1.7
29	15	19	6.6	11	-----	32	69	37	22	3.6	1.5	1.6
30	18	18	5.2	11	-----	40	68	48	20	3.5	1.5	1.7
31	17	-----	5.4	10	-----	63	-----	43	-----	3.3	1.5	-----
TOTAL	407.1	624	358.5	452.8	215.4	467.6	2,026	2,157	520.1	242.9	74.9	47.3
MEAN	13.1	20.8	11.6	14.6	7.69	15.1	67.5	69.6	17.3	7.84	2.42	1.58
MAX	26	33	20	48	9.6	63	123	111	37	19	3.3	2.2
MIN	5.5	11	5.2	6.6	6.8	6.6	44	37	6.8	3.3	1.5	1.3
AC-FT	807	1,240	711	898	427	927	4,020	4,280	1,030	482	149	94

CAL YR 1968: TOTAL 6,669.9	MEAN 18.2	MAX 92	MIN 1.4	AC-FT 13,230
WTR YR 1969: TOTAL 7,593.6	MEAN 20.8	MAX 123	MIN 1.3	AC-FT 15,060

13-3170. Salmon River at White Bird, Idaho

LOCATION.--Lat 45°45'01", long 116°19'23", in NE¼NW¼ sec.22, T.28 N., R.1 E., Idaho County, on left bank 0.1 mile upstream from White Bird Creek, 0.6 mile downstream from Canfield-Joseph highway bridge, 1 mile south-west of White Bird, and at mile 53.7. 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.

PERIOD OF RECORD.--August 1910 to September 1917, October 1919 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,412.65 ft above mean sea level. Aug. 18, 1910, to Sept. 30, 1917, and Oct. 1, 1919, to Sept. 13, 1920, nonrecording gages at site 600 ft downstream at different datum. Sept. 14, 1920, to Jan. 2, 1931, nonrecording gage on highway bridge 200 ft upstream at datum 10 ft higher.

AVERAGE DISCHARGE.--57 years, 11,030 cfs (11.05 inches per year, 7,991,000 acre-ft per year); 15-year base period (1952-67), 11,880 cfs.

EXTREMES.--Current year: Maximum discharge, 67,300 cfs May 27 (gage height, 27.67 ft); minimum, 3,510 cfs Sept. 4 (gage height, 12.23 ft).

Period of record: Maximum discharge, 106,000 cfs May 24, 1956 (gage height, 33.05 ft); minimum, 1,580 cfs Dec. 11, 1932 (gage height, 10.23 ft), from rating curve extended below 2,200 cfs.

Maximum stage known, about 37.5 ft, June 1894, present datum (discharge, 120,000 cfs).

REMARKS.--Records excellent. Amount of water diverted above station for irrigation is a negligible percentage of total flow. Records of water temperatures and chemical analysis for the water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 753: 1932. WSP 1043: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 30 to Jan. 1, Jan. 4-6, 26)

12.1	3,420	14.0	6,760	20.0	25,400
12.5	4,020	16.0	11,400	24.0	44,600
13.0	4,840	18.0	17,600	28.0	69,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,410	6,310	5,660	4,200	4,930	4,670	12,400	20,500	52,900	16,700	6,310	3,570
2	6,310	6,130	5,680	4,420	5,090	4,700	13,600	19,400	49,200	15,600	6,170	3,600
3	6,150	6,010	5,610	4,810	5,220	4,760	14,000	18,400	47,500	14,800	6,050	3,570
4	5,990	6,030	5,590	5,360	5,150	4,790	14,600	17,700	48,800	14,200	5,890	3,540
5	5,990	6,090	5,720	5,270	5,040	4,890	14,800	18,100	51,200	13,600	5,800	3,560
6	5,760	6,090	5,800	7,010	5,060	4,930	16,600	19,900	52,900	13,000	5,630	3,580
7	5,680	5,860	5,590	8,160	5,110	4,970	18,100	23,900	52,100	12,900	5,490	3,640
8	5,660	5,630	5,240	9,410	5,270	4,880	17,800	30,000	49,400	14,500	5,420	3,680
9	5,590	6,190	5,090	7,870	5,310	4,760	16,300	37,200	47,700	14,500	5,330	3,680
10	5,530	7,120	5,310	6,950	5,270	4,580	16,000	43,900	46,500	13,400	5,180	3,680
11	5,550	7,050	5,650	6,330	5,150	4,450	16,700	49,600	42,600	12,600	5,130	3,750
12	6,590	7,720	5,970	6,150	5,290	4,360	17,300	54,300	37,600	12,000	5,070	4,050
13	7,610	8,730	5,510	6,390	5,330	4,420	18,000	57,000	34,200	11,500	5,060	4,160
14	7,610	8,230	4,970	7,240	5,400	4,580	18,600	59,900	31,700	11,100	5,020	4,160
15	7,410	7,390	4,580	7,630	5,200	4,650	19,200	63,400	29,000	10,600	4,970	4,150
16	7,260	6,740	4,910	7,350	4,970	4,770	17,100	61,700	27,000	10,300	4,820	4,120
17	6,860	6,590	5,220	6,700	5,110	4,390	16,600	58,000	25,300	9,910	4,700	4,080
18	6,550	6,470	5,340	6,190	5,090	5,200	17,600	58,300	23,500	9,570	4,600	4,050
19	6,410	6,490	5,160	6,010	4,970	5,950	18,900	62,400	22,200	9,170	4,520	4,120
20	6,290	6,610	4,860	5,990	4,740	5,970	18,700	65,000	21,600	8,910	4,470	4,370
21	6,330	6,570	4,290	6,270	4,620	5,610	18,000	59,500	21,600	8,590	4,440	4,790
22	6,250	6,680	3,940	6,720	4,620	5,660	19,000	54,900	20,500	8,230	4,340	5,060
23	6,170	6,950	3,820	8,290	4,760	5,890	23,800	54,200	19,500	7,940	4,240	4,910
24	6,110	6,820	4,240	6,610	4,980	5,990	29,700	57,400	21,500	7,700	4,160	4,860
25	6,170	6,630	4,790	4,970	5,090	5,840	31,200	62,200	22,400	7,520	4,020	4,950
26	6,270	6,430	5,310	4,800	5,060	5,720	27,800	66,000	21,400	7,370	3,870	4,880
27	6,270	6,210	5,380	5,630	4,910	5,970	24,500	66,600	20,400	7,140	3,780	4,650
28	6,150	6,090	5,200	6,050	4,770	6,910	22,300	61,100	19,900	6,990	3,690	4,520
29	6,070	5,950	4,980	6,050	-----	8,250	21,900	55,100	19,100	6,800	3,640	4,400
30	6,150	5,700	4,400	5,680	-----	9,140	21,500	54,100	17,900	6,660	3,620	4,390
31	6,370	-----	3,900	5,310	-----	10,400	-----	57,300	-----	6,490	3,580	-----
TOTAL	195,420	197,510	157,710	194,820	141,510	172,550	571,600	1,487,000	997,100	330,290	149,010	124,520
MEAN	6,304	6,584	5,087	6,285	5,054	5,566	19,050	47,970	33,240	10,650	4,807	4,151
MAX	7,610	8,730	5,970	8,410	5,400	10,400	31,200	66,600	52,900	16,700	6,310	5,060
MIN	5,530	5,630	3,820	4,200	4,620	4,360	12,400	17,700	17,900	6,490	3,580	3,540
CFSM	.47	.49	.38	.46	.37	.41	1.41	3.54	2.45	.79	.35	.31
IN.	.54	.54	.43	.53	.39	.47	1.57	4.08	2.74	.91	.41	.34
AC-FT	387,600	391,800	312,800	386,400	280,700	342,200	1,134M	2,949M	1,978M	655,100	295,600	247,000

CAL YR 1968: TOTAL 3,851,860 MEAN 10,520 MAX 52,000 MIN 3,540 CFSM .78 IN 10.57 AC-FT 7,640,000
WTR YR 1969: TOTAL 4,719,040 MEAN 12,930 MAX 66,600 MIN 3,540 CFSM .95 IN 12.95 AC-FT 9,360,000

SNAKE RIVER MAIN STEM

13-3343. Snake River near Anatone, Wash.

LOCATION (revised).--Lat 46°05'50", long 116°58'36", in SE¼NE¼ sec.12, T.7 N., R.46 E., Asotin County, on left bank 1.2 miles downstream from Grande Ronde River, 7.8 miles east of Anatone, 22 miles south of Clarkston, and at mile 167.2.

DRAINAGE AREA.--92,960 sq mi, approximately.

PERIOD OF RECORD.--July 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 806.78 ft above mean sea level (revised).

AVERAGE DISCHARGE.--11 years, 32,740 cfs (23,720,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 110,000 cfs May 20 (gage height, 16.32 ft); minimum, 14,100 cfs Aug. 29 (gage height, 3.67 ft).

Period of record: Maximum discharge, 128,000 cfs May 1, 1965 (gage height, 18.09 ft); minimum, 6,010 cfs Sept. 2, 1958 (gage height, 1.29 ft).

REMARKS.--Records excellent. Flow regulated by many reservoirs above station with a total usable capacity of more than 10,000,000 acre-feet, the most effective of which is Brownlee Reservoir 106.3 miles upstream (see sta 13-2897). Diurnal fluctuations caused by Hells Canyon powerplant.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.7	14,200	10.0	54,000
4.0	15,500	12.0	70,800
6.0	25,600	16.0	107,000
8.0	38,500	16.3	110,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21,500	22,800	24,200	31,600	36,300	45,200	79,300	59,300	77,000	39,100	18,100	14,200
2	21,100	21,000	24,300	32,000	37,400	45,000	79,600	57,800	73,000	37,400	18,200	15,400
3	21,500	23,000	29,700	31,800	37,500	45,200	78,700	47,700	72,000	35,600	18,800	18,400
4	21,000	22,700	28,200	32,800	37,400	45,500	77,300	45,100	72,000	33,200	16,900	19,000
5	20,600	25,200	27,200	29,000	33,600	34,500	77,300	44,400	73,800	31,400	17,200	19,100
6	19,600	24,300	26,300	35,400	33,600	47,800	80,300	54,600	76,300	29,000	17,300	18,200
7	19,600	26,800	26,000	50,200	33,600	50,900	81,900	71,600	74,800	28,100	17,500	16,500
8	21,800	28,700	22,500	47,100	33,900	40,900	80,700	78,800	72,600	28,700	20,400	16,600
9	19,600	29,100	22,900	44,600	33,100	40,200	79,200	87,600	72,200	29,600	19,000	18,600
10	20,200	26,400	26,200	43,000	32,400	40,100	78,800	95,600	78,800	29,000	16,800	18,600
11	21,800	23,400	25,500	40,500	34,400	41,600	80,100	102,000	76,100	27,800	16,000	18,800
12	22,600	29,700	27,600	39,000	34,500	49,800	80,500	108,000	76,600	27,100	17,300	18,800
13	22,700	29,300	25,700	40,300	35,400	49,600	81,300	103,000	72,600	26,100	16,100	17,600
14	21,900	24,600	24,600	43,800	36,500	49,900	81,600	104,000	69,500	24,800	17,800	16,200
15	23,700	24,600	20,400	36,900	36,300	49,800	80,800	106,000	66,300	23,700	20,800	15,400
16	23,500	28,500	23,000	41,400	34,900	49,900	78,500	106,000	63,000	22,600	19,000	16,600
17	24,000	28,100	25,700	35,800	37,800	50,300	75,700	102,000	56,000	22,100	16,100	18,800
18	24,700	27,000	28,400	27,800	50,000	51,900	66,000	100,000	50,300	21,600	17,200	18,800
19	24,200	31,900	30,000	27,200	52,700	48,300	67,400	104,000	43,400	21,000	18,200	18,800
20	22,000	29,700	30,200	28,500	54,400	38,900	67,400	109,000	39,100	20,500	18,600	17,000
21	25,400	27,300	29,700	33,800	45,600	39,300	65,800	105,000	39,300	20,200	19,400	16,400
22	25,800	26,100	29,100	46,200	42,600	46,900	66,100	93,300	38,600	19,700	18,900	17,900
23	24,800	25,500	34,200	40,900	48,000	48,300	71,400	87,000	37,400	19,200	16,500	22,200
24	26,600	24,200	27,900	40,400	47,900	50,200	79,000	88,800	39,700	18,900	15,300	21,700
25	27,300	27,000	29,100	37,900	48,000	53,600	80,800	92,500	45,300	18,600	15,000	22,100
26	22,400	27,900	25,300	37,900	45,900	49,900	69,200	93,400	47,800	18,600	15,800	22,500
27	19,000	28,100	31,200	38,900	45,400	42,300	64,400	95,200	45,900	24,600	15,000	22,500
28	19,400	24,900	31,500	39,000	45,300	46,200	60,900	90,600	45,300	18,000	14,400	20,900
29	20,100	21,600	29,900	38,800	-----	66,200	60,900	81,600	45,500	17,800	14,200	19,400
30	21,600	22,100	31,700	38,500	-----	69,100	60,500	75,500	43,700	17,700	14,300	22,900
31	23,000	-----	33,100	38,200	-----	73,000	-----	81,100	-----	17,400	14,200	-----
TOTAL	693,000	781,500	851,300	1,169.2M	1,124.9M	1,500.8M	2,231.4M	2,670.5M	1,783.9M	762,700	530,300	559,900
MEAN	22,350	26,050	27,460	37,720	40,180	48,410	74,380	86,150	59,460	24,600	17,110	18,660
MAX	27,300	31,900	34,200	50,200	54,400	73,000	81,900	109,000	78,800	39,100	20,800	22,900
MIN	19,000	21,000	20,400	27,200	32,400	34,500	60,500	44,400	37,400	17,400	14,200	14,200
AC-FT	1,375M	1,550M	1,689M	2,319M	2,231M	2,977M	4,426M	5,297M	3,538M	1,513M	1,052M	1,111M

CAL YR 1968: TOTAL 10,519,300 MEAN 28,740 MAX 71,300 MIN 14,600 AC-FT 20,860,000
WTR YR 1969: TOTAL 14,659,400 MEAN 40,160 MAX 109,000 MIN 14,200 AC-FT 29,080,000

M Expressed in thousands.

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LOCATION.--Lat 46°19'29", long 117°09'03", in SW¼SE¼ sec.22, T.10 N., R.45 E., Asotin County, on left bank 0.3 mile downstream from Kearney Gulch, 2.2 miles upstream from George Creek, 5.0 miles west of Asotin, and at mile 5.3.

PERIOD OF RECORD.--October 1959 to current year.

AVERAGE DISCHARGE.--10 years, 71.3 cfs (51,660 acre-ft per year).

Period of record: Maximum discharge, 2,720 cfs Dec. 23, 1964 (gage height, 7.95 ft, from rating curve extended above 250 cfs on basis of slope-area measurement of peak flow; minimum, 13 cfs Jan. 11, 1963 (gage height, 1.41 ft), result of freezeup.

REMARKS.--Records fair. No regulation. Several diversions for irrigation. Prior to Nov. 20, 1959, at a point 3.3 miles upstream, the city of Clarkston diverted about 30 cfs for municipal use and irrigation. Natural low flows nearly equivalent to those of former station 3.3 miles upstream.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	38	51	41	82	61	280	166	142	51	47	31
2	35	38	51	43	73	61	250	157	133	49	48	31
3	35	39	51	46	70	62	220	148	126	49	45	31
4	35	39	51	70	69	62	210	141	125	48	39	32
5	35	38	50	150	69	72	220	134	120	48	38	31
6	35	38	47	550	66	67	230	136	114	46	35	30
7	34	37	46	320	64	66	210	148	107	45	38	31
8	34	40	47	240	65	64	180	174	100	44	35	31
9	34	61	47	200	66	63	170	204	97	42	35	31
10	34	60	51	173	63	62	170	228	93	41	34	33
11	37	54	75	153	63	62	170	258	86	40	33	32
12	54	62	69	134	70	62	170	268	80	42	34	32
13	46	62	66	151	80	62	170	273	75	45	34	33
14	42	58	63	169	90	64	170	265	71	45	33	31
15	43	54	60	162	88	68	160	253	67	44	33	31
16	43	51	58	148	85	75	150	220	64	44	33	31
17	42	48	55	136	83	100	152	214	62	44	33	31
18	41	48	53	123	80	140	166	222	60	44	32	31
19	40	47	52	117	79	140	166	243	60	46	42	34
20	42	47	48	111	76	140	159	255	61	47	45	40
21	45	48	47	105	74	140	154	235	60	43	46	37
22	42	61	47	95	71	140	170	216	58	41	46	35
23	41	71	47	76	70	140	218	212	64	39	46	34
24	42	69	47	96	68	140	248	218	63	39	42	34
25	41	65	47	144	65	140	220	218	58	39	31	34
26	40	60	46	137	64	150	192	204	57	39	31	33
27	40	57	46	107	62	160	172	181	69	39	31	33
28	39	54	44	94	62	180	165	160	61	38	32	33
29	39	52	42	90	-----	210	182	144	56	37	32	33
30	41	52	40	104	-----	270	176	164	53	39	31	36
31	39	-----	40	97	-----	320	-----	158	-----	44	31	-----
TOTAL	1,225	1,548	1,584	4,382	2,017	3,543	5,670	6,217	2,442	1,341	1,145	980
MEAN	39.5	51.6	51.1	141	72.0	114	189	201	81.4	43.3	36.9	32.7
MAX	54	71	75	550	90	320	280	273	142	51	48	40
MIN	34	37	40	41	62	61	150	134	53	37	31	30
AC-FT	2,430	3,070	3,140	8,690	4,000	7,030	11,250	12,330	4,840	2,660	2,270	1,940
CAL YR 1968 : TOTAL	21,869			MEAN 59.8	MAX 187	MIN 31	AC-FT 43,380					
WTR YR 1969 : TOTAL	32,094			MEAN 87.9	MAX 550	MIN 30	AC-FT 63,660					

CLEARWATER RIVER BASIN

13-3361. Meadow Creek near Lowell, Idaho

LOCATION.--Lat 46°01'51", long 115°17'23", in NE¼ sec.14, T.31 N., R.9 E. (unsurveyed), Idaho County, Nezperce National Forest, attached to bridge pier on right bank, at mile 1.1, and 16.5 miles southeast of Lowell.

DRAINAGE AREA.--241 sq mi. Mean altitude, 5,400 ft.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,770 ft (from river profile map).

AVERAGE DISCHARGE.--6 years, 437 cfs (24.62 inches per year, 316,600 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 2,860 cfs May 13 (gage height, 5.14 ft); minimum, 83 cfs Sept. 18 (gage height, 1.50 ft).

Period of record: Maximum discharge, 5,650 cfs June 8, 1964 (gage height, 7.26 ft); minimum daily, 32 cfs Dec. 17, 1965.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station. Records of water temperatures for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

1.5	83	3.0	525
1.7	100	3.5	905
2.0	149	4.0	1,460
2.5	294	5.0	2,680

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	236	273	273	170	228	177	688	947	1,720	486	137	89
2	224	266	287	200	220	180	759	896	1,620	465	133	87
3	212	270	284	198	215	190	848	848	1,580	450	129	86
4	202	266	280	200	210	204	820	858	1,590	420	127	89
5	189	249	276	515	205	204	867	905	1,550	397	124	90
6	180	233	256	740	205	201	1,000	1,040	1,310	370	124	89
7	180	217	240	790	205	188	876	1,280	1,220	361	123	87
8	180	215	256	730	200	175	802	1,680	1,080	340	119	86
9	172	353	240	600	200	163	810	1,900	1,040	324	115	85
10	170	374	256	520	195	165	858	2,050	978	309	112	85
11	170	328	305	480	190	163	810	2,300	810	290	113	94
12	266	415	284	440	200	163	820	2,550	734	280	113	98
13	298	400	230	405	200	163	848	2,650	702	270	110	89
14	256	360	240	380	190	165	802	2,680	630	262	108	87
15	243	330	250	365	177	175	776	2,590	555	249	104	86
16	240	318	240	345	190	177	750	2,360	514	240	103	86
17	212	290	230	330	185	190	802	2,330	492	230	101	84
18	227	317	215	320	177	212	886	2,380	470	221	101	84
19	207	340	208	310	180	221	838	2,520	440	210	100	92
20	227	340	172	308	182	218	820	2,520	435	201	99	108
21	240	340	147	290	182	227	838	2,240	420	193	97	119
22	230	455	198	280	193	249	1,110	2,050	383	188	95	98
23	230	425	208	240	188	256	1,580	2,080	415	182	93	94
24	240	388	210	187	188	237	1,710	2,250	585	177	92	135
25	246	383	220	225	185	233	1,540	2,360	579	185	90	105
26	284	345	200	280	182	249	1,250	2,260	592	170	90	93
27	266	340	185	300	175	305	1,140	2,020	549	163	90	90
28	270	317	175	265	177	361	1,100	1,800	579	158	90	89
29	276	298	136	230	-----	411	1,120	1,700	579	151	91	.87
30	298	313	100	215	-----	492	1,020	2,080	503	147	90	118
31	294	-----	113	225	-----	598	-----	1,850	-----	143	89	-----
TOTAL	7,165	9,758	6,914	11,083	5,424	7,312	28,888	59,974	24,654	8,232	3,302	2,809
MEAN	231	325	223	358	194	236	963	1,935	822	266	107	93.6
MAX	298	455	305	790	228	598	1,710	2,680	1,720	486	137	135
MIN	170	215	100	170	175	163	688	848	383	143	89	84
CFSM	.96	1.35	.93	1.48	.80	.98	4.00	8.03	3.41	1.10	.44	.39
IN.	1.11	1.51	1.07	1.71	.84	1.13	4.46	9.25	3.80	1.27	.51	.43
AC-FT	14,210	19,350	13,710	21,980	10,760	14,500	57,300	119,000	48,900	16,330	6,550	5,570

CAL YR 1968: TOTAL 173,442 MEAN 474 MAX 2,480 MIN 95 CFSM 1.97 IN 26.76 AC-FT 344,000
WTR YR 1969: TOTAL 175,515 MEAN 481 MAX 2,680 MIN 84 CFSM 2.00 IN 27.08 AC-FT 348,100

PEAK DISCHARGE (BASE, 2,200 CFS).--May 13 (2200) 2,860 cfs (5.14 ft).

NOTE.--No gage-height record Dec. 13 to Feb. 15.

13-3365. Selway River near Lowell, Idaho

LOCATION.--Lat 46°05'12", long 115°30'46", in SE¼NE¼ sec.25, T.32 N., R.7 E., Idaho County, Nezperce National Forest, on right bank 0.2 mile upstream from O'Hara Creek, 7 miles upstream from Lowell, 7.6 miles upstream from confluence with Lochsa River, and 150.2 miles upstream from mouth of Clearwater River.

DRAINAGE AREA.--1,910 sq mi, approximately. Mean altitude, 5,640 ft.

PERIOD OF RECORD.--April 1911 to September 1912 (gage heights or fragmentary discharge records only), October 1929 to current year. 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, nonrecording gage at site 2 miles downstream at different datum. Feb. 7 to Sept. 22, 1912, and Oct. 14, 1929, to Nov. 19, 1930, nonrecording gages at nearby sites at different datum.

AVERAGE DISCHARGE.--40 years (1929-69), 3,722 cfs (26.46 inches per year, 2,697,000 acre-ft per year); 15-year base period (1952-67), 3,914 cfs.

EXTREMES.--Current year: Maximum discharge, 25,500 cfs May 30 (gage height, 10.82 ft); minimum, 482 cfs Sept. 10 (gage height, 2.73 ft).

Period of record: Maximum discharge, 48,900 cfs May 29, 1948 (gage height, 16.04 ft); minimum, probably less than 100 cfs Jan. 8, 1937, during period of ice effect.

REMARKS.--Records good. Small diversions from headwaters.

REVISIONS.--WSP 1043: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 30 to Jan. 3)

2.7	458	2.0	3,410
3.0	650	6.0	5,630
3.5	1,070	8.0	12,000
4.0	1,660	10.1	21,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,180	2,400	2,340	1,200	1,890	1,490	5,870	7,690	14,500	4,450	1,000	527
2	2,030	2,300	2,350	1,540	1,850	1,530	6,330	7,420	13,500	4,210	967	515
3	1,910	2,270	2,300	1,600	1,770	1,640	7,040	6,950	13,800	4,210	937	503
4	1,810	2,260	2,330	1,680	1,730	1,780	6,930	6,830	14,900	3,980	908	509
5	1,750	2,180	2,280	4,120	1,720	1,850	7,230	7,270	15,500	3,660	875	526
6	1,660	2,080	2,150	6,150	1,730	1,820	8,440	8,270	14,300	3,430	856	526
7	1,640	1,980	1,950	6,620	1,690	1,710	8,300	10,300	13,700	3,310	844	514
8	1,630	1,960	2,040	6,000	1,620	1,580	7,380	12,800	13,000	3,180	824	503
9	1,560	3,220	1,980	4,890	1,620	1,480	7,250	14,700	12,100	2,970	799	491
10	1,520	3,430	1,960	4,280	1,590	1,400	7,800	16,800	11,600	2,810	777	485
11	1,560	2,960	2,130	3,900	1,570	1,420	7,440	19,100	9,380	2,690	766	508
12	2,230	3,780	2,160	3,560	1,600	1,460	7,300	20,800	8,120	2,550	774	561
13	2,650	3,710	1,840	3,330	1,610	1,480	7,680	21,500	7,290	2,420	750	564
14	2,310	3,350	1,870	3,280	1,510	1,500	7,340	21,500	6,450	2,260	728	522
15	2,180	3,060	2,010	3,060	1,420	1,580	6,970	20,600	5,900	2,130	705	511
16	2,260	3,000	1,970	2,830	1,530	1,630	6,740	18,300	5,550	2,010	680	503
17	2,060	2,690	1,860	2,710	1,510	1,730	7,060	18,000	5,240	1,900	665	497
18	2,010	2,710	1,790	2,640	1,460	2,000	7,900	18,900	4,950	1,800	655	491
19	1,920	2,700	1,740	2,630	1,420	2,180	7,620	19,900	4,770	1,720	649	556
20	1,940	2,710	1,400	2,520	1,440	2,180	7,360	21,600	4,580	1,640	637	651
21	2,090	2,640	1,200	2,480	1,420	2,220	7,040	18,000	4,440	1,570	622	727
22	1,980	3,650	1,530	2,320	1,480	2,380	8,520	16,400	4,100	1,500	604	652
23	1,970	3,830	1,680	1,950	1,540	2,540	12,200	16,700	4,040	1,440	589	606
24	2,080	3,410	1,770	1,600	1,540	2,370	14,800	18,800	5,430	1,370	572	872
25	2,150	3,260	1,790	1,840	1,540	2,280	12,600	20,400	5,860	1,360	551	883
26	2,380	2,970	1,620	2,580	1,520	2,340	10,700	20,500	5,500	1,310	543	698
27	2,370	2,890	1,530	2,460	1,470	2,730	9,390	19,200	5,150	1,240	547	618
28	2,270	2,760	1,500	2,110	1,450	3,310	8,910	15,300	5,310	1,180	545	590
29	2,300	2,450	1,270	1,930	-----	3,730	9,280	13,900	5,350	1,120	544	572
30	2,480	2,630	840	1,760	-----	4,310	8,350	20,300	4,820	1,090	543	691
31	2,620	-----	880	1,780	-----	5,160	-----	18,000	-----	1,040	534	-----
TOTAL	63,500	85,240	56,060	91,350	44,240	66,810	247,770	496,730	249,130	71,550	21,990	17,372
MEAN	2,048	2,841	1,808	2,947	1,580	2,155	8,259	16,020	8,304	2,308	709	579
MAX	2,650	3,830	2,350	6,620	1,890	5,160	14,800	21,600	15,500	4,450	1,000	883
MIN	1,520	1,960	840	1,200	1,420	1,400	5,870	6,830	4,040	1,040	534	485
CFSM	1.07	1.49	.95	1.54	.83	1.13	4.32	8.39	4.35	1.21	.37	.30
IN.	1.24	1.66	1.09	1.78	.86	1.30	4.82	9.67	4.85	1.39	.43	.34
AC-FT	126,000	169,100	111,200	181,200	87,750	132,500	491,400	985,200	494,100	141,900	43,620	34,460

CAL YR 1968: TOTAL 1,492,851 MEAN 4,079 MAX 21,700 MIN 756 CFSM 2.14 IN 29.07 AC-FT 2,961,000

WTR YR 1969: TOTAL 1,511,742 MEAN 4,142 MAX 21,600 MIN 485 CFSM 2.17 IN 29.44 AC-FT 2,998,000

PEAK DISCHARGE (BASE, 18,000 CFS).--May 14 (0430) 23,100 cfs (10.41 ft); May 30 (1730) 25,500 cfs (10.82 ft).

CLEARWATER RIVER BASIN

13-3370. Lochsa River near Lowell, Idaho

LOCATION.--Lat 46°09'02", long 115°35'11", in SW¼SE¼ sec.33, T.33 N., R.7 E., Idaho County, Nezperce National Forest, on right bank 0.7 mile upstream from Lowell, 0.9 mile upstream from confluence with Selway River, 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.

PERIOD OF RECORD.--October 1910 to September 1912, October 1929 to current year. 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, nonrecording gages at site 1 mile upstream at different datums.

AVERAGE DISCHARGE.--42 years, 2,848 cfs (32.78 inches per year, 2,063,000 acre-ft per year); 15-year base period (1952-67), 3,047 cfs.

EXTREMES.--Current year: Maximum discharge, 17,800 cfs May 20 (gage height, 9.55 ft); minimum, 341 cfs Sept. 10 (gage height, 1.79 ft).

Period of record: Maximum discharge, 35,100 cfs June 8, 1964 (gage height, 13.50 ft), from rating curve extended above 17,000 cfs; minimum, probably less than 100 cfs Jan. 8, 1937, during period of ice effect.

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 30 to Jan. 4, Jan. 24-25)

1.7	300	4.0	2,920
2.0	486	6.0	7,190
2.5	886	8.0	12,700
3.0	1,420	9.3	17,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,490	2,060	2,020	1,030	1,530	1,160	3,930	6,610	10,800	4,170	840	384
2	1,400	1,950	2,000	1,290	1,510	1,190	5,000	6,330	9,990	3,870	810	374
3	1,320	1,950	1,960	1,310	1,470	1,250	6,200	5,930	10,000	4,090	780	363
4	1,280	1,930	2,030	1,380	1,420	1,310	6,100	5,860	10,500	3,870	750	368
5	1,290	1,850	1,940	3,650	1,380	1,330	6,500	6,230	10,600	3,410	720	386
6	1,230	1,780	1,810	4,810	1,390	1,310	7,500	7,000	9,760	3,140	700	388
7	1,260	1,700	1,670	5,430	1,380	1,220	6,900	8,490	9,440	2,940	680	375
8	1,230	1,670	1,710	4,710	1,310	1,140	6,400	10,200	8,880	2,870	660	364
9	1,170	2,840	1,710	3,900	1,340	1,050	6,300	11,300	8,310	2,650	640	353
10	1,170	2,680	1,700	3,420	1,310	1,040	6,700	12,800	8,620	2,480	620	343
11	1,310	2,380	1,990	3,090	1,290	1,050	6,300	14,500	7,050	2,360	600	358
12	2,600	3,150	1,870	2,810	1,310	1,070	6,200	15,600	6,020	2,230	610	398
13	2,920	3,140	1,590	2,710	1,310	1,080	6,600	15,900	5,520	2,130	580	447
14	2,330	2,780	1,590	2,930	1,220	1,100	6,400	16,000	4,840	1,980	560	414
15	2,190	2,550	1,670	2,680	1,180	1,150	6,050	15,700	4,380	1,850	550	380
16	2,230	2,470	1,650	2,480	1,220	1,170	5,900	14,400	4,070	1,750	535	365
17	1,980	2,210	1,570	2,400	1,200	1,220	6,200	14,600	3,810	1,650	525	358
18	1,900	2,200	1,520	2,290	1,170	1,460	7,000	14,800	3,600	1,560	518	353
19	1,810	2,260	1,470	2,250	1,130	1,580	6,700	15,100	3,410	1,490	512	441
20	1,870	2,240	1,210	2,160	1,150	1,540	6,500	16,900	3,300	1,430	500	563
21	2,050	2,170	1,130	2,120	1,130	1,560	6,200	14,300	3,230	1,350	486	595
22	1,920	3,460	1,310	1,960	1,150	1,650	7,600	12,700	2,990	1,280	469	513
23	1,910	3,340	1,380	1,720	1,180	1,750	10,000	12,700	2,990	1,220	454	471
24	1,970	2,960	1,430	1,370	1,190	1,620	11,500	13,800	4,230	1,190	439	701
25	1,990	2,800	1,470	1,510	1,190	1,560	9,300	14,400	4,860	1,170	421	785
26	2,090	2,570	1,330	1,900	1,190	1,630	8,200	14,500	4,710	1,090	411	590
27	2,050	2,500	1,260	1,870	1,150	1,920	7,440	13,600	4,420	1,030	408	502
28	1,960	2,370	1,250	1,730	1,130	2,390	7,290	11,100	5,010	970	403	470
29	1,950	2,140	1,030	1,610	-----	2,700	8,120	10,000	5,100	930	401	453
30	2,140	2,210	730	1,510	-----	3,100	7,240	14,400	4,570	900	399	625
31	2,260	-----	840	1,510	-----	3,660	-----	13,600	-----	870	391	-----
TOTAL	56,270	72,310	47,840	75,540	35,530	47,960	208,270	379,350	185,010	63,920	17,372	13,480
MEAN	1,815	2,410	1,543	2,437	1,269	1,547	6,942	12,240	6,167	2,062	560	449
MAX	2,920	3,460	2,030	5,430	1,530	3,660	11,500	16,900	10,800	4,170	840	785
MIN	1,170	1,670	730	1,030	1,130	1,040	3,930	5,860	2,990	870	391	343
CFSM	1.54	2.04	1.31	2.07	1.08	1.31	5.88	10.4	5.23	1.75	.47	.38
IN.	1.77	2.28	1.51	2.38	1.12	1.51	6.56	11.96	5.83	2.01	.55	.42
AC-FT	111,600	143,400	94,890	149,800	70,470	95,130	413,100	752,400	367,000	126,800	34,460	26,740

CAL YR 1968: TOTAL 1,115,366 MEAN 3,047 MAX 13,800 MIN 585 CFSM 2.58 IN 35.15 AC-FT 2,212,000
WTR YR 1969: TOTAL 1,202,852 MEAN 3,295 MAX 16,900 MIN 343 CFSM 2.79 IN 37.91 AC-FT 2,386,000

PEAK DISCHARGE (BASE, 12,000 CFS).--May 20 (1045) 17,800 cfs (9.55 ft); May 30 (1600) 17,400 cfs (9.42 ft).

13-3375. South Fork Clearwater River near Elk City, Idaho

LOCATION.--Lat 45°49'29", long 115°31'36", in SE¼NE¼ sec.25, T.29 N., R.7 E. (unsurveyed), Idaho County, Nezperce National Forest, on right bank just upstream from bridge on road to Orogrande, 0.2 mile upstream from Crooked River, 4.5 miles west of Elk City, and at mile 58.6.

DRAINAGE AREA.--261 sq mi. Mean altitude, 5,150 ft.

PERIOD OF RECORD.--September 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,816.27 ft above mean sea level. Prior to June 23, 1949, non-recording gage at site 24 ft downstream at datum 6.14 ft lower.

AVERAGE DISCHARGE.--25 years, 267 cfs (13.89 inches per year, 193,400 acre-ft per year); 15-year base period (1952-67), 260 cfs.

EXTREMES.--Current year: Maximum discharge, 2,200 cfs Apr. 24 (gage height, 5.42 ft); minimum, 34 cfs Aug. 25, Sept. 2-4, 9; minimum gage height, 1.47 ft Sept. 2-4, 9.
Period of record: Maximum discharge, 4,040 cfs June 8, 1964 (gage height, 7.48 ft); minimum daily, 10 cfs Nov. 28, 29, 1952.

REMARKS.--Records excellent except those for December to March, which are poor. No regulation or diversion above station except for mining operations.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 23 to Mar. 23)

1.4	31	3.0	394
1.6	48	3.5	649
2.0	104	4.0	1,000
2.5	220	5.3	2,110

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	176	165	330	207	121	742	1,060	552	305	71	36
2	99	164	205	390	202	125	888	1,050	492	281	69	35
3	94	164	200	289	198	133	1,030	944	447	270	66	35
4	91	172	204	749	186	138	986	916	414	251	64	35
5	88	162	200	1,410	180	140	1,080	948	392	245	61	38
6	86	150	183	1,020	177	137	1,180	1,010	381	229	61	38
7	86	143	167	721	175	126	1,070	1,140	379	224	60	37
8	94	147	193	608	160	114	1,000	1,280	331	210	58	36
9	93	515	177	566	163	106	1,090	1,380	355	197	57	35
10	90	358	182	522	165	105	1,170	1,440	415	184	53	36
11	90	293	225	464	167	105	1,090	1,490	319	171	54	44
12	176	364	201	464	170	105	1,150	1,510	290	164	55	48
13	271	321	136	425	174	106	1,270	1,520	272	158	54	45
14	234	279	197	352	162	110	1,150	1,610	253	150	55	41
15	199	259	188	290	140	115	1,090	1,600	239	143	52	40
16	194	253	192	340	150	120	1,050	1,390	224	136	50	39
17	171	236	174	346	158	130	1,120	1,270	211	130	50	38
18	167	249	165	349	152	140	1,290	1,200	199	126	49	37
19	161	254	164	344	147	145	1,190	1,250	189	121	45	43
20	170	260	150	332	140	150	1,180	1,330	199	115	44	59
21	229	247	130	320	134	145	1,160	1,120	217	109	43	85
22	203	297	180	300	136	140	1,430	980	185	101	41	58
23	201	288	220	250	133	140	1,740	897	206	100	40	51
24	207	257	246	235	130	176	2,030	842	458	98	39	84
25	198	259	254	270	133	187	1,740	788	358	107	36	68
26	218	242	252	300	126	210	1,490	731	355	97	36	52
27	192	239	244	330	124	250	1,320	689	372	90	36	48
28	179	224	225	290	117	303	1,250	635	467	85	36	47
29	172	199	210	245	-----	366	1,350	558	415	81	39	45
30	188	232	201	215	-----	459	1,140	807	346	78	39	63
31	195	-----	197	210	-----	553	-----	709	-----	75	37	-----
TOTAL	4,940	7,403	6,027	13,276	4,406	5,400	36,466	34,094	9,932	4,831	1,550	1,396
MEAN	159	247	194	428	157	174	1,216	1,100	331	156	50.0	46.5
MAX	271	515	254	1,410	207	553	2,030	1,610	552	305	71	85
MIN	86	143	130	210	117	105	742	558	185	75	36	35
CFSM	.61	.95	.74	1.64	.60	.67	4.66	4.21	1.27	.60	.19	.18
IN.	.70	1.05	.86	1.89	.63	.77	5.20	4.86	1.42	.69	.22	.20
AC-FT	9,800	14,680	11,950	26,330	8,740	10,710	72,330	67,620	19,700	9,580	3,070	2,770

CAL YR 1968: TOTAL 108,314 MEAN 296 MAX 1,150 MIN 49 CFSM 1.13 IN 15.43 AC-FT 214,800
WTR YR 1969: TOTAL 129,721 MEAN 355 MAX 2,030 MIN 35 CFSM 1.36 IN 18.48 AC-FT 257,300

PEAK DISCHARGE (BASE, 1,300 CFS).--Apr. 24 (0400) 2,200 cfs (5.42 ft); May 14 (0200) 1,760 cfs (4.96 ft).

NOTE.--No gage-height record Dec. 20 to Feb. 2.

13-3385. South Fork Clearwater River at Stites, Idaho

LOCATION.--Lat 46°05'12", long 115°58'32", in SE¼NE¼ sec.29, T.32 N., R.4 E., Idaho County, on left bank at Stites, 0.4 mile upstream from county road bridge, 0.4 mile downstream from Cottonwood Creek, and at mile 4.0.

DRAINAGE AREA.--1,150 sq mi, approximately.

PERIOD OF RECORD.--October 1910 to April 1912, October 1964 to current year. Published as "at Kooskia" 1910-12.

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (from topographic map). October 1910 to April 1912, nonrecording gage 3.6 miles downstream at different datum.

AVERAGE DISCHARGE.--6 years (1910-1911, 1964-69), 1,041 cfs (12.29 inches per year, 754,200 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 7,860 cfs Jan. 6 (gage height, 7.46 ft); minimum, 146 cfs Sept. 3, 4, 10 (gage height, 2.64 ft).

Period of record: Maximum discharge observed, 10,700 cfs May 29, 1912 (gage height, 6.00 ft, site and datum then in use); minimum, 119 cfs Dec. 15, 1968; minimum gage height, 2.40 ft Dec. 18, 1965 (ice affected).
Flood of June 8, 1964, reached a stage of 10.3 ft, present site and datum (discharge, 17,500 cfs).

REMARKS.--Records good. No regulation above station.

REVISIONS.--WSP 1317: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 30 to Jan. 2)

2.6	124	5.0	2,670
3.0	324	6.0	4,570
3.5	699	7.0	6,800
4.0	1,250	7.1	7,040

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	455	594	777	600	787	628	2,670	3,230	2,590	1,440	318	163
2	428	545	777	720	758	655	2,740	3,170	2,420	1,330	307	154
3	401	529	787	646	738	681	3,060	2,930	2,350	1,300	301	150
4	381	545	922	602	719	728	2,760	2,770	2,320	1,190	289	150
5	368	529	879	1,840	719	797	2,840	2,740	2,300	1,120	278	154
6	356	485	768	7,040	719	787	3,170	2,820	2,210	1,050	272	163
7	349	462	663	5,650	709	728	2,990	3,080	2,120	988	266	158
8	349	462	748	3,520	672	655	2,650	3,480	1,930	944	256	154
9	349	1,260	709	2,720	709	594	2,690	3,810	2,090	890	250	150
10	343	1,470	748	2,350	728	553	2,960	4,130	2,380	828	245	150
11	349	1,070	955	2,140	728	545	2,820	4,380	1,880	768	240	167
12	758	1,580	838	1,920	777	537	2,860	4,510	1,630	738	235	224
13	1,200	1,350	602	1,850	807	545	3,100	4,610	1,500	699	235	219
14	944	1,100	655	1,890	719	553	2,930	4,860	1,380	663	230	191
15	758	966	681	1,640	672	610	2,760	4,780	1,260	637	219	172
16	719	933	681	1,310	738	777	2,570	4,340	1,160	602	214	167
17	637	828	628	1,300	768	1,740	2,640	4,090	1,080	578	205	163
18	610	849	586	1,310	728	1,960	3,050	4,030	1,030	545	205	158
19	594	890	578	1,300	681	1,770	2,940	4,090	977	522	195	176
20	575	900	462	1,250	655	1,590	2,930	4,440	988	507	200	214
21	748	849	362	1,200	637	1,510	2,770	3,810	1,100	485	195	301
22	699	977	485	1,080	646	1,440	3,210	3,500	933	462	186	266
23	672	1,060	553	807	628	1,330	4,090	3,410	933	441	181	219
24	690	933	578	663	628	1,070	5,210	3,410	1,910	428	172	295
25	681	988	586	758	637	1,050	4,570	3,370	1,750	435	167	330
26	681	933	553	977	619	1,120	3,970	3,320	1,460	421	158	245
27	663	911	522	1,090	602	1,250	3,520	3,170	1,550	394	158	214
28	610	966	507	977	594	1,350	3,320	2,810	2,020	374	158	205
29	594	879	428	859	-----	1,460	4,340	2,540	1,890	356	163	195
30	628	944	330	797	-----	1,710	3,540	3,190	1,620	343	163	219
31	646	-----	300	797	-----	2,090	-----	3,170	-----	330	167	-----
TOTAL	18,235	26,787	19,648	51,603	19,522	32,813	95,670	111,990	50,761	21,808	6,828	5,886
MEAN	588	893	634	1,665	697	1,058	3,189	3,613	1,692	703	220	196
MAX	1,200	1,580	955	7,040	807	2,090	5,210	4,860	2,590	1,440	318	330
MIN	343	462	300	600	594	537	2,570	2,540	933	330	158	150
CFSM	.51	.78	.55	1.45	.61	.92	2.77	3.14	1.47	.61	.19	.17
IN.	.59	.87	.64	1.67	.63	1.06	3.09	3.62	1.64	.71	.22	.19
AC-FT	36,170	53,130	38,970	102,400	38,720	65,080	189,800	222,100	100,700	43,260	13,540	11,670
CAL YR 1968: TOTAL	386,679				MEAN 1,057	MAX 3,550	MIN 210	CFSM .92	IN 12.50	AC-FT 767,000		
WTR YR 1969: TOTAL	461,551				MEAN 1,265	MAX 7,040	MIN 150	CFSM 1.10	IN 14.93	AC-FT 915,500		

PEAK DISCHARGE (BASE, 3,300 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
1- 6	0830	7.46	7,860	5-14	0600	6.23	5,030
4-24	0930	6.40	5,430				

13-3388. Lawyer Creek near Nezperce, Idaho

LOCATION.--Lat 46°09'48", long 116°14'24", in NW¼NW¼ sec.32, T.33 N., R.2 E., Idaho County, Nezperce Indian Reservation, on right bank, 350 ft upstream from State Highway 7 bridge, 5.0 miles south of Nezperce, and at mile 15.6.

DRAINAGE AREA.--150 sq mi, approximately.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,675 ft (revised) (from topographic map).

EXTREMES.--Current year: Maximum discharge, 1,550 cfs Mar. 31 (gage height, 6.35 ft); minimum, 1.4 cfs Aug. 24, 25.

Period of record: Maximum discharge, 1,550 cfs Mar. 31, 1969 (gage height, 6.35 ft); minimum, 1.2 cfs Aug. 16-23, 1967, July 29 to Aug. 4, 1968 (gage height, 1.33 ft).

REMARKS.--Records fair except those for December, which are poor. No regulation or diversion above station.

Rating tables (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 5 to Mar. 27, Apr. 22, 23; stage-discharge relation affected by ice Dec. 11-12, Dec. 14 to Jan. 3, Jan. 24 to Feb. 8)

Oct. 1 to Mar. 27				Mar. 28 to Sept. 30			
1.5	3.1	3.0	150	2.0	0.9	4.0	175
1.7	7.1	3.5	282	2.5	7.4	4.5	356
2.0	19	4.0	456	3.0	27	5.0	632
2.3	40	4.5	667	3.5	74	6.0	1,280
2.6	76						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	6.4	13	7.0	20	25	1,050	140	21	7.7	1.5	1.7
2	3.6	6.2	15	10	20	26	875	122	16	7.2	1.5	1.7
3	3.6	6.4	14	12	21	28	698	110	13	8.2	1.5	1.7
4	3.6	6.4	15	18	21	32	462	86	11	9.0	1.5	1.8
5	3.6	6.2	16	98	20	34	668	70	9.8	7.0	1.5	1.9
6	3.8	6.0	9.9	474	20	32	644	60	9.6	6.1	1.6	1.9
7	4.0	6.0	14	460	20	29	347	53	9.0	5.3	1.6	1.9
8	4.0	6.7	18	208	22	26	250	45	7.9	5.0	1.6	1.8
9	4.0	14	18	176	24	20	258	40	7.9	5.0	1.5	1.8
10	4.1	18	21	135	23	21	380	36	32	4.2	1.5	1.9
11	4.5	14	25	112	25	21	330	32	23	3.8	1.5	2.1
12	11	20	18	73	29	20	258	29	13	3.5	1.6	2.2
13	14	21	13	135	30	20	284	28	10	3.4	1.6	2.2
14	9.3	16	15	180	27	21	207	37	8.5	3.0	1.6	2.2
15	7.7	14	16	112	29	26	170	65	7.0	3.0	1.5	2.2
16	7.7	11	14	75	29	36	142	36	6.1	2.6	1.6	2.2
17	7.7	12	12	71	26	71	133	28	5.2	2.5	1.6	2.2
18	7.1	13	12	59	25	108	207	24	4.8	2.3	1.6	2.2
19	7.7	19	10	62	24	108	152	24	4.6	2.2	1.5	3.2
20	8.0	21	6.4	57	26	120	133	48	5.0	2.0	1.5	4.1
21	16	18	6.0	50	23	159	103	40	7.2	1.9	1.5	5.2
22	13	21	7.0	33	22	171	91	26	11	1.8	1.5	4.2
23	10	29	11	20	21	128	230	21	9.3	1.9	1.5	3.8
24	9.0	20	13	16	21	108	409	19	16	1.8	1.4	4.0
25	8.4	18	13	16	21	132	190	17	15	1.8	1.4	3.8
26	7.4	16	13	17	21	230	147	16	11	1.6	1.5	3.5
27	6.9	18	11	17	21	344	120	15	10	1.7	1.5	3.3
28	6.7	17	9.1	16	23	478	106	17	12	1.6	1.6	3.5
29	6.2	16	7.0	17	-----	602	195	15	12	1.6	1.7	3.5
30	6.4	16	5.0	18	-----	812	144	36	9.6	1.6	1.8	4.7
31	6.9	-----	5.4	19	-----	1,020	-----	38	-----	1.6	1.8	-----
TOTAL	219.7	432.3	395.8	2,773.0	654	5,008	9,383	1,373	337.5	111.9	48.1	82.4
MEAN	7.09	14.4	12.8	89.5	23.4	162	313	44.3	11.3	3.61	1.55	2.75
MAX	16	29	25	474	30	1,020	1,050	140	32	9.0	1.8	5.2
MIN	3.6	6.0	5.0	7.0	20	20	91	15	4.6	1.6	1.4	1.7
CFSM	.05	.10	.09	.60	.16	1.08	2.09	.30	.08	.02	.01	.02
IN.	.05	.11	.10	.69	.16	1.24	2.33	.34	.08	.03	.01	.02
AC-FT	436	857	785	5,500	1,300	9,930	18,610	2,720	669	222	95	163

CAL YR 1968: TOTAL 7,762.2 MEAN 21.2 MAX 572 MIN 1.2 CFSM .14 IN 1.92 AC-FT 15,400
WTR YR 1969: TOTAL 20,818.7 MEAN 57.0 MAX 1,050 MIN 1.4 CFSM .38 IN 5.16 AC-FT 41,290

PEAK DISCHARGE (BASE, 300 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1- 6	1800	4.73	604	4-10	2000	4.94	602
3-31	2200	6.35	1,550	4-23	2400	5.16	722

CLEARWATER RIVER BASIN

13-3400. Clearwater River at Orofino, Idaho

LOCATION.--Lat 46°28'43", long 116°15'23", in SW¼SE¼NW¼ sec.7, T.36 N., R.2 E., Clearwater County, on right bank 56 ft upstream from State Highway 7 bridge at Orofino, and at mile 44.6.

DRAINAGE AREA.--5,580 sq mi, approximately.

PERIOD OF RECORD.--October 1930 to September 1938, October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 990.80 ft above mean sea level (levels by Idaho Department of Highways). Prior to Sept. 30, 1938, nonrecording gage at site 0.1 mile downstream at different datum.

AVERAGE DISCHARGE.--13 years, 8,236 cfs (20.04 inches per year, 5,967,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 48,500 cfs May 20 (gage height, 13.72 ft); minimum, 1,100 cfs Sept. 12 (gage height, 2.91 ft).

Period of record: Maximum discharge, 81,500 cfs June 10, 1933 (gage height, 20.87 ft, site and datum then in use); minimum observed, probably less than 250 cfs Jan. 8, 1937, during period of ice effect; minimum gage height, 2.78 ft Sept. 29, 1967.

Flood of June 8, 1964, reached a stage of 20.32 ft present site and datum (discharge, 99,700 cfs).

REMARKS.--Records good.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 30 to Jan. 2, Jan. 24-30)

2.9	1,000	8.0	15,200
3.0	1,160	10.0	24,500
4.0	2,920	12.0	36,300
5.0	5,120	14.0	50,000
6.0	7,920		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,760	6,080	7,160	2,750	5,340	4,500	18,900	22,300	31,700	11,700	2,420	1,310
2	4,480	5,660	6,520	3,900	5,370	4,640	19,500	21,200	28,700	10,800	2,290	1,280
3	4,200	5,530	6,580	4,570	5,500	4,830	21,500	19,700	28,100	10,800	2,200	1,220
4	4,000	5,530	6,810	4,500	5,240	5,100	20,100	18,800	29,300	10,600	2,110	1,190
5	3,890	5,370	6,920	8,760	5,220	5,500	20,500	19,000	30,600	9,630	2,030	1,200
6	3,780	5,120	6,440	28,200	5,450	5,730	24,300	20,500	28,600	8,990	1,960	1,250
7	3,680	4,900	5,920	27,800	5,300	5,470	22,900	23,800	27,800	8,430	1,960	1,270
8	3,700	4,760	5,760	22,800	4,900	5,100	20,300	23,600	26,200	8,110	1,980	1,200
9	3,610	7,130	6,000	18,000	4,780	4,690	19,500	32,500	24,900	8,020	1,880	1,160
10	3,510	10,400	5,840	15,200	5,000	4,430	21,200	36,500	24,900	7,550	1,830	1,160
11	3,610	8,300	6,560	13,500	4,360	4,340	20,800	40,900	21,200	7,100	1,810	1,140
12	5,200	10,500	6,890	12,000	4,900	4,360	20,100	44,100	17,900	6,840	1,790	1,180
13	8,820	11,600	5,940	11,100	5,170	4,390	21,500	45,600	16,500	6,360	1,780	1,350
14	7,220	9,760	5,370	11,400	4,830	4,430	20,700	46,100	15,300	5,680	1,810	1,380
15	6,160	8,720	5,760	10,600	4,570	4,620	19,400	44,700	13,500	5,270	1,690	1,270
16	6,380	8,180	5,680	9,560	4,570	4,860	18,600	42,500	12,700	4,980	1,690	1,210
17	5,890	7,520	5,550	8,890	4,690	5,840	19,100	39,500	11,700	4,760	1,710	1,180
18	5,450	7,010	5,200	8,460	4,620	8,430	21,900	40,500	11,200	4,500	1,670	1,140
19	5,370	7,280	5,120	8,270	4,520	9,250	22,500	41,800	10,600	4,320	1,630	1,160
20	5,270	7,430	4,570	7,990	4,460	9,060	22,000	45,600	10,200	4,110	1,610	1,460
21	6,610	7,220	3,590	7,760	4,480	9,290	20,200	41,800	10,100	3,920	1,580	1,860
22	6,130	8,720	3,830	7,310	4,550	9,360	22,000	36,200	9,420	3,780	1,530	1,900
23	5,810	11,400	4,590	6,300	4,710	9,420	29,100	35,300	9,190	3,680	1,500	1,670
24	5,730	9,800	4,880	4,700	4,740	8,530	38,400	37,900	11,600	3,530	1,400	1,740
25	5,760	9,190	5,120	4,420	4,760	8,140	33,900	40,500	15,100	3,490	1,370	2,440
26	5,840	8,560	5,000	5,800	4,760	8,500	28,400	41,200	13,400	3,300	1,320	2,200
27	6,050	8,050	4,660	7,200	4,740	9,870	24,700	39,900	13,300	3,140	1,310	1,720
28	5,760	8,050	4,550	6,500	4,550	11,800	23,300	33,000	13,000	2,980	1,310	1,540
29	5,580	7,520	3,810	5,700	-----	13,200	26,600	29,000	14,600	2,820	1,310	1,480
30	5,810	7,250	2,600	5,250	-----	14,500	24,400	34,300	13,100	2,640	1,310	1,590
31	6,380	-----	2,180	4,980	-----	16,800	-----	41,900	-----	2,530	1,320	-----
TOTAL	164,440	232,540	165,500	304,160	136,580	228,980	686,300	1,085,200	544,410	184,360	53,110	42,850
MEAN	5,305	7,751	5,339	9,812	4,878	7,386	22,880	35,010	18,150	5,947	1,713	1,428
MAX	8,820	11,600	7,160	28,200	5,500	16,800	38,400	46,100	31,700	11,700	2,420	2,440
MIN	3,510	4,760	2,180	2,750	4,460	4,340	18,600	18,800	9,190	2,530	1,310	1,140
CFSM	.95	1.39	.96	1.76	.87	1.32	4.10	6.27	3.25	1.07	.31	.26
IN.	1.10	1.55	1.10	2.03	.91	1.53	4.57	7.23	3.63	1.23	.35	.29
AC-FT	326,200	461,200	328,300	603,300	270,900	454,200	1,361M	2,152M	1,080M	365,700	105,300	84,990

CAL YR 1968: TOTAL 3,511,600 MEAN 9,595 MAX 38,900 MIN 1,720 CFSM 1.72 IN 23.40 AC-FT 6,965,000
WTR YR 1969: TOTAL 3,828,430 MEAN 10,490 MAX 46,100 MIN 1,140 CFSM 1.88 IN 25.52 AC-FT 7,594,000

PEAK DISCHARGE (BASE, 30,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-6	0900	10.95	30,300	5-20	1230	13.72	48,500
4-24	1330	12.55	40,400				

13-3405. North Fork Clearwater River at Bungalow ranger station, Idaho

LOCATION.--Lat 46°37'53", long 115°30'28", in SW¼SW¼ sec.18, T.38 N., R.8 E., Clearwater County, Clearwater National Forest, on left bank at Bungalow ranger station, 300 ft downstream from mouth of Orogrande Creek, 1,000 ft downstream from highway bridge, 17 miles northeast of Pierce, and at mile 85.0.

DRAINAGE AREA.--996 sq mi. Mean altitude, 4,930 ft.

PERIOD OF RECORD.--September 1944 to September 1969 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 2,240 ft (from river-profile map).

AVERAGE DISCHARGE.--25 years, 2,842 cfs (38.75 inches per year, 2,059,000 acre-ft per year); 15-year base period (1952-67), 2,795 cfs.

EXTREMES.--Current year: Maximum discharge, 14,900 cfs May 20 (gage height, 7.71 ft); minimum, 490 cfs Sept. 11 (gage height, 2.51 ft).

Period of record: Maximum discharge, 27,400 cfs May 29, 1948 (gage height, 11.13 ft); minimum daily, 180 cfs Nov. 29, 1952.

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

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 9-29; stage-discharge relation affected by ice Dec. 14,
Dec. 21 to Jan. 5, Jan. 24 to Feb. 3)

2.4	468	4.0	2,830
2.5	542	5.0	5,470
3.0	1,080	6.0	8,770
3.5	1,850	8.0	16,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,120	1,850	1,780	1,000	1,540	1,120	3,980	6,340	9,120	2,900	926	567
2	1,070	1,800	1,850	1,220	1,520	1,110	4,380	6,090	8,520	2,790	902	558
3	1,030	1,870	1,780	1,280	1,510	1,150	5,020	5,720	8,350	2,870	890	542
4	1,030	1,800	1,900	1,350	1,500	1,240	4,550	5,810	8,350	2,640	878	558
5	1,080	1,730	1,760	3,500	1,480	1,240	5,020	6,190	8,210	2,440	878	583
6	1,000	1,660	1,650	4,190	1,540	1,220	7,020	6,960	7,900	2,340	878	567
7	1,110	1,600	1,520	4,900	1,490	1,120	5,350	8,140	7,360	2,220	842	550
8	1,050	1,620	1,700	3,930	1,340	1,030	4,780	9,340	6,990	2,140	819	527
9	1,000	2,380	1,580	3,300	1,430	990	5,150	10,200	6,510	2,010	808	520
10	1,160	2,110	1,660	2,920	1,360	1,030	5,690	11,300	6,060	1,900	786	505
11	1,380	2,050	1,890	2,660	1,300	1,050	5,170	12,300	5,320	1,820	775	498
12	3,420	2,920	1,700	2,420	1,280	1,080	5,320	12,900	4,810	1,780	775	720
13	2,580	2,660	1,360	2,640	1,260	1,120	5,810	12,900	4,380	1,700	775	583
14	2,030	2,440	1,450	2,850	1,120	1,150	5,440	12,600	3,950	1,630	753	542
15	2,090	2,300	1,520	2,460	1,180	1,220	5,350	12,900	3,670	1,570	731	527
16	2,070	2,200	1,620	2,320	1,190	1,210	5,500	12,200	3,450	1,500	731	520
17	1,830	1,980	1,460	2,240	1,150	1,320	5,970	12,900	3,230	1,460	710	520
18	1,780	2,010	1,430	2,140	1,090	1,700	6,800	12,400	3,070	1,400	691	512
19	1,680	2,010	1,400	2,110	1,070	1,730	6,570	12,200	2,940	1,340	691	662
20	1,850	2,030	1,110	2,010	1,090	1,580	6,350	13,300	2,850	1,300	672	691
21	2,120	1,960	1,090	1,980	1,050	1,630	6,150	11,700	2,770	1,240	653	720
22	2,010	3,450	1,230	1,850	1,120	1,750	7,420	11,000	2,680	1,210	644	634
23	2,050	3,050	1,310	1,600	1,120	1,750	9,700	10,900	2,700	1,160	634	634
24	2,010	2,680	1,380	1,320	1,120	1,610	10,400	11,200	3,500	1,140	616	963
25	1,980	2,520	1,430	1,450	1,110	1,650	8,740	11,400	3,230	1,110	599	701
26	1,990	2,300	1,340	1,830	1,090	1,890	7,560	11,300	3,260	1,070	599	608
27	1,900	2,240	1,240	1,790	1,040	2,420	7,030	10,600	3,120	1,050	599	583
28	1,870	2,090	1,140	1,690	1,040	3,030	7,130	9,300	3,820	1,020	599	591
29	1,830	1,960	1,000	1,600	-----	3,350	7,830	8,600	3,500	976	591	591
30	2,030	2,030	710	1,520	-----	3,720	6,930	11,400	3,190	963	591	1,040
31	2,050	-----	820	1,510	-----	4,030	-----	10,600	-----	950	583	-----
TOTAL	53,200	65,300	44,810	69,580	35,130	51,240	188,110	320,690	146,810	51,639	22,619	18,317
MEAN	1,716	2,177	1,445	2,245	1,255	1,653	6,270	10,340	4,894	1,666	730	611
MAX	3,420	3,450	1,900	4,900	1,540	4,030	10,400	13,300	9,120	2,900	926	1,040
MIN	1,000	1,600	710	1,000	1,040	990	3,980	5,720	2,680	950	583	498
CFSM	1.72	2.19	1.45	2.25	1.26	1.66	6.30	10.4	4.91	1.67	.73	.61
IN.	1.99	2.44	1.67	2.60	1.31	1.91	7.02	11.97	5.48	1.93	.84	.68
AC-FT	105,500	129,500	83,880	138,000	69,680	101,600	373,100	636,100	291,200	102,400	44,860	36,330

CAL YR 1968: TOTAL 984,725 MEAN 2,691 MAX 10,200 MIN 643 CFSM 2.70 IN 36.77 AC-FT 1,953,000
WTR YR 1969: TOTAL 1,067,445 MEAN 2,925 MAX 13,300 MIN 498 CFSM 2.94 IN 39.86 AC-FT 2,117,000

PEAK DISCHARGE (BASE, 9,000 CFS).--Apr. 23 (2330) 11,500 cfs (6.85 ft); May 20 (0300) 14,900 cfs (7.71 ft).

CLEARWATER RIVER BASIN

13-3406. North Fork Clearwater River near Canyon ranger station, Idaho

LOCATION.--Lat 46°50'26", long 115°37'11", in SE¼NE¼ sec.6, T.40 N., R.7 E., Clearwater County, Clearwater National Forest, on left bank immediately upstream from forest road bridge, 0.1 mile upstream from Beaver Creek, 1.7 miles downstream from Canyon ranger station, and at mile 58.0.

DRAINAGE AREA.--1,360 sq mi, approximately.

PERIOD OF RECORD.--April 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,660.00 ft above mean sea level.

EXTREMES.--Current year: Maximum discharge, 18,100 cfs May 20 (gage height, 13.98 ft); minimum, 706 cfs Sept. 12 (gage height, 6.54 ft).

Period of record: Maximum discharge, 22,000 cfs May 23, 1967 (gage height, 15.28 ft); minimum, 655 cfs Sept. 23, 28-30, 1967 (gage height, 6.55 ft).

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

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 29 to Jan. 2, Jan. 5, 24-25)

6.5	640	10.0	6,300
7.0	1,050	12.0	11,900
8.0	2,240	14.0	18,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,490	2,500	2,550	1,800	2,210	1,630	5,880	8,730	11,600	3,630	1,210	782
2	1,430	2,410	2,570	2,230	2,190	1,650	6,350	8,340	10,800	3,460	1,190	775
3	1,350	2,470	2,500	2,140	2,070	1,740	7,400	7,770	10,600	3,550	1,170	752
4	1,350	2,410	2,730	2,350	2,030	1,850	6,700	7,690	10,600	3,330	1,140	744
5	1,420	2,320	2,570	5,100	1,930	1,840	7,240	8,120	10,500	3,050	1,120	775
6	1,340	2,230	2,410	5,890	1,970	1,830	9,030	9,010	9,960	2,880	1,100	790
7	1,460	2,160	2,200	7,790	1,970	1,730	7,930	10,600	9,440	2,740	1,100	782
8	1,410	2,130	2,330	5,980	1,840	1,580	6,880	12,300	8,970	2,680	1,070	759
9	1,350	3,000	2,330	4,910	1,880	1,510	7,220	13,300	8,390	2,530	1,050	744
10	1,450	2,860	2,380	4,310	1,870	1,510	8,090	14,700	7,610	2,390	1,030	728
11	1,820	2,660	2,760	3,900	1,840	1,560	7,350	16,100	6,730	2,300	1,000	713
12	4,450	3,950	2,570	3,540	1,840	1,590	7,400	16,700	6,080	2,230	995	767
13	3,730	3,790	2,160	3,990	1,860	1,640	8,260	16,800	5,590	2,170	986	1,000
14	2,850	3,400	2,170	4,180	1,680	1,690	7,720	16,300	5,030	2,070	977	815
15	2,830	3,140	2,170	3,660	1,700	1,770	7,500	16,400	4,650	2,000	950	782
16	2,950	3,000	2,230	3,430	1,730	1,750	7,660	15,700	4,370	1,920	942	759
17	2,570	2,690	2,080	3,300	1,700	1,880	8,280	16,200	4,120	1,870	959	752
18	2,450	2,690	2,050	3,130	1,630	2,490	9,400	15,700	3,930	1,800	942	744
19	2,350	2,680	1,900	3,070	1,580	2,650	9,150	15,500	3,730	1,740	942	744
20	2,450	2,710	1,520	2,940	1,640	2,450	8,980	16,700	3,590	1,680	924	950
21	3,120	2,630	1,710	2,860	1,580	2,450	8,420	14,800	3,520	1,630	907	977
22	2,850	4,630	1,940	2,690	1,600	2,600	10,000	13,900	3,380	1,580	889	986
23	2,910	4,520	1,960	2,410	1,640	2,660	13,200	13,600	3,460	1,520	864	872
24	2,830	3,890	2,040	1,900	1,650	2,470	14,900	14,100	4,350	1,470	847	986
25	2,760	3,610	2,010	2,100	1,640	2,470	12,300	14,300	4,280	1,450	823	1,230
26	2,730	3,270	1,810	2,810	1,640	2,740	10,600	14,200	4,140	1,410	815	950
27	2,610	3,180	1,770	2,740	1,580	3,400	9,630	13,400	4,070	1,370	815	856
28	2,530	3,020	1,630	2,440	1,560	4,350	9,660	11,800	4,630	1,350	815	806
29	2,490	2,800	1,300	2,270	-----	4,870	11,000	10,800	4,540	1,310	815	815
30	2,630	2,810	1,060	2,140	-----	5,430	9,570	14,100	3,990	1,260	806	916
31	2,760	-----	1,300	2,110	-----	5,950	-----	13,600	-----	1,240	798	-----
TOTAL	72,720	89,560	64,710	104,110	50,050	75,730	263,700	411,260	186,650	65,610	29,991	25,051
MEAN	2,346	2,985	2,087	3,358	1,788	2,443	8,790	13,270	6,222	2,116	967	835
MAX	4,450	4,630	2,760	7,790	2,210	5,950	14,900	16,800	11,600	3,630	1,210	1,230
MIN	1,340	2,130	1,060	1,800	1,560	1,510	5,880	7,690	3,380	1,240	798	713
CFSM	1.72	2.20	1.53	2.47	1.31	1.80	6.46	9.75	4.57	1.56	.71	.61
IN.	1.99	2.45	1.77	2.85	1.37	2.07	7.21	11.25	5.10	1.79	.82	.69
AC-FT	144,200	177,600	128,400	206,500	99,270	150,200	523,000	815,700	370,200	130,100	59,490	49,690

CAL YR 1968: TOTAL 1,325,485 MEAN 3,622 MAX 12,600 MIN 872 CFSM 2.66 IN 36.25 AC-FT 2,629,000
WTR YR 1969: TOTAL 1,439,142 MEAN 3,943 MAX 16,800 MIN 713 CFSM 2.90 IN 39.35 AC-FT 2,854,000

PEAK DISCHARGE (BASE, 12,000 CFS).--Apr. 24 (0430) 16,400 cfs (13.47 ft); May 20 (0715) 18,100 cfs (13.98 ft).

CLEARWATER RIVER BASIN

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13-3410.5 Clearwater River near Peck, Idaho

LOCATION.--Lat 46°30'00", long 116°23'30", in NE¼ sec.1, T.36 N., R.1 W., Clearwater County, on left bank, 2 miles upstream from Big Canyon Creek, 2.2 miles northeast of Peck, 3 miles downstream from North Fork Clearwater River, and at mile 37.4.

DRAINAGE AREA.--8,040 sq mi, approximately.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 930 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 15,170 cfs (25.62 inches per year, 10,990,000 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 72,400 cfs May 13 (gage height, 17.88 ft); minimum, 2,220 cfs Sept. 11 (gage height, 3.17 ft).

Period of record: Maximum discharge, 102,000 cfs Dec. 23, 1964 (gage height, 22.0 ft, from floodmark); maximum gage height, 25.00 ft Dec. 28, 1967 (ice jam); minimum, 1,850 cfs Sept. 30, 1966, and Sept. 29, 1967; minimum gage height, 2.90 ft Sept. 29, 1967.

Flood of June 8, 1964, reached a stage of 23.95 ft, from floodmark (discharge, 118,000 cfs), from rating extended above 89,100 cfs.

REMARKS.--Records excellent. Records of water temperatures for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 30 to Jan. 5)

3.0	1,990	10.0	23,700
4.0	3,540	12.0	34,100
6.0	8,300	15.0	52,600
8.0	14,800	18.0	73,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,000	9,690	11,500	5,000	8,680	7,540	32,900	37,700	49,100	16,400	4,320	2,380
2	6,580	9,100	10,600	7,000	9,050	7,760	34,000	35,300	44,500	15,400	4,160	2,340
3	6,230	9,020	10,600	7,600	8,930	8,060	37,500	33,000	43,300	15,300	4,080	2,290
4	5,950	9,100	11,400	8,200	8,650	8,410	34,600	31,400	44,500	15,100	3,940	2,250
5	5,850	8,850	11,300	14,000	8,410	8,790	35,200	32,100	45,600	13,600	3,820	2,300
6	5,830	8,460	10,600	42,300	8,460	9,020	41,300	34,400	42,900	12,600	3,730	2,420
7	5,640	8,140	9,720	43,900	8,490	8,740	39,300	39,700	41,500	11,900	3,710	2,400
8	5,860	7,920	9,520	39,100	8,080	8,190	34,700	46,900	39,100	11,500	3,620	2,330
9	5,610	11,300	10,000	29,600	8,110	7,540	34,000	52,200	36,900	11,000	3,520	2,270
10	5,420	15,200	9,720	24,500	8,350	7,140	37,200	57,500	35,900	10,400	3,450	2,250
11	5,910	12,500	11,600	21,300	8,250	7,060	35,900	63,600	31,300	9,890	3,360	2,230
12	10,200	16,800	11,800	18,800	8,300	7,300	34,900	67,800	26,800	9,470	3,290	2,290
13	15,000	18,900	10,200	17,600	8,790	7,440	38,100	69,500	24,600	9,130	3,260	2,680
14	11,600	15,800	9,350	19,500	8,300	7,540	36,300	68,500	22,100	8,710	3,240	2,620
15	10,400	13,900	9,750	17,600	7,760	7,760	34,000	67,200	20,300	8,270	3,170	2,400
16	11,200	13,000	9,610	15,900	7,680	8,060	32,900	64,000	18,700	7,900	3,070	2,300
17	10,000	11,900	9,470	14,800	7,840	8,880	34,200	61,700	17,500	7,600	3,020	2,260
18	9,270	11,100	8,960	14,100	7,810	12,800	39,500	63,100	16,600	7,270	2,990	2,250
19	9,190	11,400	8,740	13,900	7,680	14,900	40,200	62,900	15,900	6,990	2,960	2,330
20	9,050	11,700	7,900	13,400	7,520	14,500	39,700	67,600	15,200	6,700	2,920	2,810
21	11,900	11,300	6,340	12,700	7,490	14,400	35,900	62,200	14,700	6,440	2,860	3,330
22	10,800	14,700	6,650	12,000	7,410	15,200	39,300	56,300	14,000	6,180	2,800	3,400
23	10,400	19,800	7,790	10,500	7,540	15,800	50,800	54,700	14,000	5,930	2,720	3,070
24	10,100	16,400	8,250	8,600	7,540	14,600	63,800	57,400	17,100	5,730	2,640	3,380
25	10,000	15,300	8,910	8,080	7,570	13,900	55,700	60,300	21,600	5,560	2,540	4,160
26	9,890	14,000	8,600	9,920	7,570	14,700	46,800	61,000	18,900	5,420	2,440	3,600
27	9,980	13,100	8,060	11,600	7,650	17,000	41,400	58,900	19,100	5,200	2,430	2,990
28	9,490	13,100	7,790	10,600	7,490	20,900	39,400	51,200	18,400	5,060	2,420	2,760
29	9,240	12,100	6,490	9,490	-----	23,700	45,100	45,500	21,000	4,820	2,400	2,700
30	9,470	11,700	4,300	8,790	-----	26,500	41,500	52,800	18,300	4,600	2,420	2,910
31	10,300	-----	3,800	8,440	-----	30,200	-----	62,500	-----	4,490	2,420	-----
TOTAL	273,360	375,280	279,320	498,820	225,400	384,330	1,186,1M	1,679,1M	809,400	274,560	97,720	79,700
MEAN	8,818	12,510	9,010	16,090	8,050	12,400	39,540	54,160	26,980	8,857	3,152	2,657
MAX	15,000	19,800	11,800	43,900	9,050	30,200	63,800	69,500	49,100	16,400	4,320	4,160
MIN	5,420	7,920	3,800	5,000	7,410	7,060	32,900	31,400	14,000	4,490	2,400	2,230
CFSM	1.10	1.56	1.12	2.00	1.00	1.54	4.92	6.74	3.36	1.10	.39	.33
IN.	1.26	1.74	1.29	2.31	1.04	1.78	5.49	7.77	3.74	1.27	.45	.37
AC-FT	542,200	744,400	554,000	989,400	447,100	762,300	2,353M	3,330M	1,605M	544,600	193,800	158,100
CAL YR 1968: TOTAL	5,585,610			MEAN 15,260		MAX 58,000	MIN 3,000	CFSM 1.90	IN 25.84	AC-FT 11,080,000		
WTR YR 1969: TOTAL	6,163,090			MEAN 16,890		MAX 69,500	MIN 2,230	CFSM 2.10	IN 28.51	AC-FT 12,220,000		

CLEARWATER RIVER BASIN

13-3413. Bloom Creek near Bovill, Idaho

LOCATION.--Lat 46°51'28", long 116°17'22", in SE¼NE¼ sec.35, T.41 N., R.1 E., Clearwater County, on right bank 200 ft upstream from mouth and 4.8 miles east of Bovill.

DRAINAGE AREA.--3.15 sq mi. Mean altitude, 3,700 ft.

PERIOD OF RECORD.--August 1959 to current year.

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

AVERAGE DISCHARGE.--10 years, 4.94 cfs (21.30 inches per year, 3,580 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 51 cfs Jan. 5 (gage height, 2.35 ft); maximum gage height, 2.90 ft Jan. 24 (backwater from ice); minimum discharge, 0.71 cfs Aug. 23; minimum gage height, 1.65 ft Sept. 11-18. Period of record: Maximum discharge, 151 cfs Dec. 23, 1964 (gage height, 3.17 ft) by slope-area measurement of peak flow; maximum gage height, 3.32 ft Mar. 25, 1964 (ice jam); minimum discharge, 0.3 cfs Aug. 8, 1963 (gage height, 1.54 ft).

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station.

REVISIONS.--WRD Idaho 1968: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 13 to Aug. 23; stage-discharge relation affected by ice
Dec. 20-21, Dec. 27 to Jan. 3, Jan. 23-26, Jan. 29 to Feb. 1, Mar. 9-13)

1.5	0.40	1.9	8.2
1.6	.92	2.0	15
1.7	2.3	2.2	36
1.8	4.5		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.7	3.4	2.8	3.7	2.7	30	17	4.5	2.0	.92	.76
2	1.6	1.7	3.2	2.9	3.6	2.5	29	14	4.1	1.9	.87	.76
3	1.5	1.9	3.4	3.1	3.4	2.5	30	13	4.1	1.7	.87	.76
4	1.6	1.7	4.3	4.5	3.4	2.5	26	13	3.8	1.7	.87	.82
5	1.5	1.6	3.4	3.4	3.4	2.7	31	14	3.6	1.7	.87	.82
6	1.6	1.6	3.2	1.4	3.4	2.7	36	17	3.6	1.6	.87	.82
7	1.6	1.5	3.0	2.0	3.4	2.7	30	18	3.4	1.6	.87	.76
8	1.5	2.3	3.4	1.5	3.2	2.7	26	17	3.2	1.6	.87	.76
9	1.5	4.3	3.6	1.2	3.2	2.7	28	16	3.2	1.6	.82	.82
10	1.5	2.7	5.2	9.6	3.2	2.7	31	15	3.2	1.6	.82	.82
11	2.5	3.8	6.0	7.8	3.4	2.7	28	13	3.0	1.5	.82	.82
12	7.1	7.5	5.2	7.1	3.6	2.7	29	12	3.0	1.5	.82	.76
13	3.8	4.9	4.9	10	3.4	2.7	34	9.6	2.5	1.3	.82	.76
14	3.0	4.1	4.5	9.6	3.2	2.7	31	8.2	2.5	1.2	.82	.76
15	5.6	3.6	4.3	8.9	3.2	2.7	27	7.5	2.3	1.2	.82	.76
16	3.8	3.2	4.5	7.8	3.2	3.0	26	6.7	2.3	1.1	.82	.76
17	3.2	2.7	4.1	7.1	3.2	3.6	28	6.7	2.3	1.1	.82	.76
18	3.4	3.0	3.8	6.7	3.2	5.6	33	6.0	2.3	1.2	.82	.82
19	3.0	3.6	3.8	6.4	3.2	5.2	31	7.1	2.1	1.1	.82	.92
20	4.9	3.4	3.7	5.6	3.2	5.2	28	8.2	2.1	1.1	.76	1.5
21	4.3	3.8	3.6	5.2	3.0	5.6	25	6.0	2.1	1.1	.76	1.2
22	4.1	8.9	3.6	4.9	3.0	6.0	27	5.2	2.3	1.1	.76	1.1
23	3.4	6.0	3.4	4.8	3.0	6.4	33	4.9	3.4	1.1	.76	1.6
24	2.7	5.2	4.3	4.6	3.0	6.4	36	4.5	4.1	1.1	.76	1.2
25	2.5	4.5	4.5	4.4	3.0	6.7	27	4.3	2.7	1.1	.76	1.2
26	2.3	4.1	3.8	4.2	2.7	7.5	23	4.3	2.3	1.1	.76	1.1
27	2.1	4.1	3.7	4.1	2.7	10	21	4.5	3.0	1.1	.76	1.1
28	2.0	3.8	3.5	4.1	2.7	14	20	4.3	2.5	1.1	.82	.92
29	1.9	3.6	2.5	4.1	-----	16	22	4.3	2.3	1.1	.82	.92
30	2.1	3.6	1.5	4.0	-----	19	20	6.7	2.0	1.1	.82	1.6
31	2.0	-----	2.3	3.8	-----	26	-----	5.2	-----	1.1	.76	-----
TOTAL	85.2	108.4	117.6	243.1	89.8	186.1	846	293.2	87.8	41.4	25.33	28.46
MEAN	2.75	3.61	3.79	7.84	3.21	6.00	28.2	9.46	2.93	1.34	.82	.95
MAX	7.1	8.9	6.0	34	3.7	26	36	18	4.5	2.0	.92	1.6
MIN	1.5	1.5	1.5	2.8	2.7	2.5	20	4.3	2.0	1.1	.76	.76
CFSM	.87	1.15	1.20	2.49	1.02	1.91	8.95	3.00	.93	.42	.26	.30
IN.	1.01	1.28	1.39	2.87	1.06	2.20	9.99	3.46	1.04	.49	.30	.34
AC-FT	169	215	233	482	178	369	1,680	582	174	82	50	56

CAL YR 1968: TOTAL 1,448.61 MEAN 3.96 MAX 80 MIN .76 CFSM 1.26 IN 17.10 AC-FT 2,870
WTR YR 1969: TOTAL 2,152.39 MEAN 5.90 MAX 36 MIN .76 CFSM 1.87 IN 25.41 AC-FT 4,270

PEAK DISCHARGE (BASE, 35 CFS)

NOTE.--No gage-height record Apr. 2 to May 4.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1- 5	1330	2.35	51	4-24	(*)		(*)
4- 6	(*)		(*)				

* Unknown

13-3414. East Fork Potlatch River near Bovill, Idaho

LOCATION.--Lat 46°50'08", long 116°23'26", in SW¼SW¼ sec.6, T.40 N., R.1 E., Latah County, on left bank 60 ft upstream from highway bridge and 1.5 miles south of Bovill.

DRAINAGE AREA.--41.6 sq mi. Mean altitude, 3,600 ft.

PERIOD OF RECORD.--September 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 59.1 cfs (19.29 inches per year, 42,820 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, about 750 cfs Jan. 6; maximum recorded gage height, 4.46 ft Apr. 5; minimum discharge, 5.2 cfs Sept. 2, 3 (gage height, 1.52 ft).
Period of record: Maximum discharge, 1,740 cfs Dec. 23, 1964 (gage height, 8.19 ft); minimum, 3.7 cfs Aug. 23, 24, 25, 1966 (gage height, 1.48 ft).

REMARKS.--Records excellent except those for December to February, which are fair. No regulation or diversion above station.

REVISIONS.--WRD Idaho 1968: Drainage area.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 20 to Mar. 2)

1.5	5.0	3.0	157
1.7	10	3.5	287
2.0	28	4.0	453
2.5	78	4.5	612

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	21	43	32	39	34	433	191	52	19	7.8	5.8
2	9.6	20	40	36	38	34	427	168	46	18	7.8	5.5
3	9.6	23	40	38	38	38	443	149	42	18	7.5	5.5
4	10	20	64	54	38	40	372	142	38	18	7.5	6.0
5	12	18	48	380	38	41	450	142	36	16	7.8	7.0
6	10	18	40	650	38	39	515	148	35	16	8.1	6.8
7	11	17	40	280	38	38	389	155	32	15	7.8	6.5
8	11	19	44	175	37	38	319	155	29	14	7.5	6.2
9	10	60	44	140	37	44	336	146	28	14	7.5	6.2
10	10	39	74	115	38	46	383	138	27	13	7.2	6.2
11	13	44	116	92	39	50	339	128	25	13	6.8	6.2
12	73	95	75	82	41	50	349	115	24	13	6.8	6.2
13	46	68	72	105	42	52	430	104	23	12	7.0	6.0
14	28	56	63	98	41	52	352	95	21	12	6.8	6.2
15	50	48	54	91	40	48	303	85	20	11	6.5	6.5
16	44	42	59	84	40	50	290	75	19	11	6.5	6.5
17	32	38	52	77	39	64	303	75	19	10	6.5	6.2
18	32	37	48	70	39	128	410	64	18	10	6.5	6.2
19	30	44	46	63	39	123	372	66	18	10	6.5	7.8
20	39	44	45	56	39	107	319	95	18	9.9	6.5	11
21	58	43	43	52	38	119	284	68	18	9.6	6.2	14
22	46	104	41	48	38	130	339	60	18	9.6	6.2	9.9
23	40	85	40	45	37	124	453	54	23	9.3	6.0	11
24	36	73	54	43	37	119	540	50	37	9.0	6.0	14
25	32	64	50	42	36	140	379	48	26	9.3	5.8	10
26	28	57	48	41	35	181	281	44	23	9.3	5.8	9.3
27	25	58	47	41	34	249	232	48	28	9.3	5.8	8.7
28	24	54	44	40	34	316	219	48	29	9.3	6.0	8.4
29	22	48	32	40	-----	345	260	42	23	8.7	6.2	8.4
30	23	48	17	39	-----	386	224	68	21	8.4	6.2	9.3
31	25	-----	27	39	-----	456	-----	74	-----	8.1	6.0	-----
TOTAL	849.2	1,405	1,550	3,188	1,067	3,681	10,745	3,040	816	372.8	209.1	233.5
MEAN	27.4	46.8	50.0	103	38.1	119	358	98.1	27.2	12.0	6.75	7.78
MAX	73	104	116	650	42	456	540	191	52	19	8.1	14
MIN	9.6	17	17	32	34	34	219	42	18	8.1	5.8	5.5
CFSM	.66	1.13	1.20	2.47	.92	2.85	8.61	2.36	.65	.29	.16	.19
IN.	.76	1.26	1.39	2.85	.95	3.29	9.61	2.72	.73	.33	.19	.21
AC-FT	1,680	2,790	3,070	6,320	2,120	7,300	21,310	6,030	1,620	739	415	463
GAL YR 1968: TOTAL	16,255.3			MEAN 44.4		MAX 687		MIN 4.6		CFSM 1.07	IN 14.53	AC-FT 32,240
WTR YR 1969: TOTAL	27,156.6			MEAN 74.4		MAX 650		MIN 5.5		CFSM 1.79	IN 24.28	AC-FT 53,870

PEAK DISCHARGE (BASE, 380 CFS)

DATE	TIME	G.H.T.	DISCHARGE	DATE	TIME	G.H.T.	DISCHARGE
1- 6	-	-	about 750	4-23	2300	4.45	600
4- 5	2300	4.46	600				

13-3425. Clearwater River at Spalding, Idaho

LOCATION.--Lat 46°26'55", long 116°49'35", in Indian allotment 198, NE¼SW¼ sec.22, T.36 N., R.4 W., Clearwater County, Nezperce Indian Reservation, on left bank 0.4 mile downstream from Lapwai Creek, 0.5 mile west of Splading Post Office, 3,100 ft downstream from bridge on U.S. Highway 12, and at mile 11.6.

DRAINAGE AREA.--9,570 sq mi, approximately. Mean altitude, 4,360 ft.

PERIOD OF RECORD.--August 1910 to October 1913, October 1924 to January 1925, April 1925 to current year. Published as "near Lewiston" 1910-13, 1924-27. Records published for both sites March 1926 to September 1927.

GAGE.--Water-stage recorder. Altitude of gage is 770.5 ft (estimated from datum of gage 3,100 ft upstream). See WRD for Idaho 1966-68 for history of changes prior to Oct. 1, 1962.

AVERAGE DISCHARGE.--47 years, 15,320 cfs (21.74 inches per year, 11,100,000 acre-ft per year); 15-year base period (1952-67), 15,970 cfs.

EXTREMES.--Current year: Maximum discharge, 74,300 cfs May 13 (gage height, 14.36 ft); minimum, 2,240 cfs Sept. 10, 11, 12, 18, 19 (gage height, 2.52 ft).
Period of record: Maximum discharge, 177,000 cfs May 29, 1948 (gage height, 23.76 ft); maximum gage height, 27.77 ft Feb. 5, 1963, from floodmark (ice jam); minimum daily discharge, 500 cfs Jan. 9, 1937, Dec. 1, 1952.
Flood of June 1894 reached a stage of 20.8 ft, site and datum in use 1924-26 (discharge, 136,000 cfs).

REMARKS.--Records excellent. Small diversions from tributaries. Records of chemical analysis and water temperatures for the water year 1969 are published in Part 2 of this report.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Dec. 30 to Jan. 6, Jan. 25 to Feb. 17)

2.5	2,200	10.0	36,400
3.0	3,250	12.0	52,400
4.0	5,710	14.0	70,200
6.0	12,900	14.1	71,200
8.0	23,200		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7,050	9,810	11,900	5,200	9,100	8,040	39,900	41,300	50,900	16,800	4,500	2,480
2	6,620	9,090	10,800	7,200	9,150	8,330	39,500	38,000	45,500	15,600	4,350	2,440
3	6,270	8,840	10,800	7,900	9,300	8,640	42,200	35,400	43,900	15,200	4,230	2,360
4	6,000	8,980	11,700	8,500	9,100	9,040	39,200	33,300	44,600	15,200	4,110	2,280
5	5,890	8,690	12,300	20,000	8,900	9,680	38,500	33,200	45,000	13,900	3,970	2,310
6	5,880	8,350	11,200	56,000	9,000	10,000	45,200	35,200	43,900	12,900	3,890	2,440
7	5,670	8,000	10,200	55,900	9,000	9,760	45,300	39,900	42,300	12,200	3,840	2,480
8	5,820	7,780	9,690	46,600	8,600	9,190	39,100	47,000	39,800	11,700	3,770	2,430
9	5,650	9,980	10,400	34,000	8,700	8,550	37,200	52,300	37,400	11,300	3,700	2,340
10	5,470	15,400	10,200	27,300	9,000	8,040	40,400	57,500	36,000	10,600	3,620	2,280
11	5,700	12,700	13,500	23,400	8,800	7,890	41,000	64,100	32,300	10,100	3,520	2,240
12	9,040	15,700	13,300	20,500	8,850	7,960	38,700	69,200	27,400	9,650	3,430	2,250
13	15,100	19,300	11,300	19,300	9,300	8,050	41,100	71,100	24,900	9,270	3,410	2,530
14	12,000	16,200	9,850	22,100	9,100	8,180	39,900	70,100	22,300	8,880	3,380	2,730
15	10,300	14,200	10,000	19,900	8,500	8,510	36,600	68,500	20,200	8,410	3,320	2,480
16	11,100	13,100	10,000	17,600	8,300	9,000	35,000	66,100	18,700	8,060	3,210	2,350
17	10,100	12,200	9,880	16,200	8,600	10,000	35,600	62,300	17,600	7,720	3,120	2,280
18	9,180	11,100	9,280	15,300	8,580	15,900	38,700	63,700	16,700	7,410	3,090	2,240
19	9,080	11,400	9,000	14,700	8,350	19,500	41,400	63,100	15,900	7,130	3,030	2,260
20	8,760	11,700	8,300	14,200	8,150	18,900	42,800	67,400	15,200	6,860	2,990	2,610
21	11,600	11,500	6,770	13,600	8,080	18,900	38,500	65,000	14,900	6,580	2,970	3,200
22	11,100	13,600	6,560	12,800	7,830	19,400	40,200	57,300	14,200	6,310	2,900	3,550
23	10,500	20,500	7,770	11,400	8,010	20,800	51,000	54,900	13,900	6,090	2,830	3,220
24	10,100	17,000	8,270	9,250	8,030	19,000	67,600	57,200	15,800	5,880	2,750	3,210
25	9,920	15,500	9,230	8,500	8,100	18,500	61,700	60,200	21,500	5,710	2,670	4,050
26	9,750	14,400	9,330	10,800	8,160	19,800	51,300	61,100	19,000	5,560	2,560	3,930
27	9,920	13,300	8,700	12,600	8,090	24,200	44,700	59,100	19,100	5,380	2,510	3,230
28	9,440	13,500	8,370	11,500	7,990	29,400	41,500	52,300	18,000	5,160	2,500	2,900
29	9,150	12,600	7,340	10,300	-----	31,600	46,600	46,300	21,000	4,980	2,490	2,800
30	9,190	11,900	4,700	9,700	-----	34,100	45,200	49,800	18,700	4,780	2,480	2,800
31	10,000	-----	3,950	9,000	-----	38,500	-----	64,700	-----	4,640	2,480	-----
TOTAL	271,350	376,320	294,590	571,250	240,670	477,360	1,285.6M	1,706.6M	816,600	279,960	101,620	80,700
MEAN	8,753	12,540	9,503	18,430	8,595	15,400	42,850	55,050	27,220	9,031	3,278	2,690
MAX	15,100	20,500	13,500	56,000	9,300	38,500	67,600	71,100	50,900	16,800	4,500	4,050
MIN	5,470	7,780	3,950	5,200	7,830	7,890	35,000	33,200	13,900	4,640	2,480	2,240
CFSM	.91	1.31	.99	1.93	.90	1.61	4.48	5.75	2.84	.94	.34	.28
IN.	1.05	1.46	1.14	2.22	.94	1.86	5.00	6.63	3.17	1.09	.39	.31
AC-FT	538,200	746,400	584,300	1,133M	477,400	946,800	2,550M	3,385M	1,620M	555,300	201,600	160,100

CAL YR 1968: TOTAL 5,727,350 MEAN 15,650 MAX 65,500 MIN 3,140 CFSM 1.64 IN 22.26 AC-FT 11,360,000
WTR YR 1969: TOTAL 6,502,620 MEAN 17,820 MAX 71,100 MIN 2,240 CFSM 1.86 IN 25.27 AC-FT 12,900,000

PEAK DISCHARGE (BASE, 50,000 CFS)

M Expressed in thousands.

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
1-7	1715	12.70	58,400	5-13	1415	14.36	74,300
4-24	1445	14.10	71,700	5-31	0245	14.00	70,400

SNAKE RIVER MAIN STEM

277

13-3435. Snake River near Clarkston, Wash.

LOCATION.--Lat 46°25'41", long 117°09'51", in SE¼SE¼ sec.16, T.11 N., R.45 E., Whitman County, on right bank 2.0 miles upstream from Alpowa Creek, 7.0 miles downstream from Clarkston, and at mile 132.9.

DRAINAGE AREA.--103,200 sq mi, approximately.

PERIOD OF RECORD.--October 1915 to current year. Monthly discharge only for some periods, published in WSP 1317. Prior to October 1935, published as "at Riparia." Monthly discharge only October 1909 to September 1915, published in State Water-Supply Bulletin 6. Gage-height records collected at Riparia 1900-16 (fragmentary) 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 Oct. 1, 1935, nonrecording gage at Riparia 65.8 miles downstream at different datum.

AVERAGE DISCHARGE.--54 years, 49,150 cfs (35,610,000 acre-ft per year); 15-year base period (1952-67), 50,970 cfs.

EXTREMES.--Current year: Maximum discharge, 189,000 cfs May 20 (gage height, 29.63 ft); minimum, 16,500 cfs Sept. 2 (gage height, 9.87 ft).

Period of record: 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).

Flood of June 5, 1894, reached a stage of 24.7 ft, Riparia site and datum, determined from floodmarks by U.S. Weather Bureau (discharge, 409,000 cfs).

REMARKS.--Records excellent. Over 2,840,000 acres are irrigated above the station. Regulation from many storage reservoirs above station and fluctuations during low-flow periods from powerplants on Clearwater River at Lewiston, Idaho, and Snake River at Hells Canyon Dam 114.1 miles upstream. Records of chemical analyses for water year 1969 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 463: 1916. WSP 933: 1937. WSP 1447: 1931(M), 1934(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28,200	33,000	36,500	35,800	45,500	52,500	119,000	99,800	130,000	56,600	22,400	17,100
2	28,000	31,200	33,400	37,400	45,900	52,600	120,000	95,100	119,000	53,100	22,600	18,000
3	27,900	31,400	40,400	38,900	46,800	52,900	122,000	84,800	116,000	51,100	22,900	20,600
4	27,000	31,300	40,000	41,300	46,400	53,600	118,000	77,900	116,000	48,800	21,400	21,200
5	26,700	33,800	40,300	43,200	43,200	49,600	116,000	76,700	119,000	45,500	21,200	21,400
6	26,400	32,200	37,700	81,600	42,100	50,000	125,000	84,700	120,000	42,400	21,200	21,200
7	24,300	34,700	37,100	105,000	42,400	60,500	128,000	109,000	118,000	40,100	21,400	19,900
8	27,500	34,700	33,400	96,300	42,100	51,000	121,000	124,000	113,000	39,800	23,300	18,400
9	26,100	39,300	31,300	80,100	41,200	48,200	117,000	139,000	108,000	40,900	23,500	20,900
10	25,000	43,900	37,500	71,200	41,100	47,500	118,000	154,000	115,000	39,400	20,900	20,900
11	27,300	35,200	38,100	64,600	42,400	47,200	122,000	169,000	109,000	37,600	19,500	21,100
12	30,200	44,000	41,800	60,400	43,400	55,600	119,000	181,000	105,000	36,400	20,700	21,100
13	37,900	51,200	38,100	59,000	45,300	56,500	122,000	179,000	98,500	35,300	19,800	20,900
14	33,600	42,100	35,400	65,400	44,900	56,700	122,000	179,000	92,600	33,600	20,500	19,400
15	34,300	39,500	31,800	61,200	44,900	57,100	118,000	180,000	87,300	31,500	24,100	18,200
16	34,800	41,100	31,200	56,200	42,900	57,500	114,000	178,000	82,800	30,500	22,500	18,900
17	33,700	40,100	35,200	54,000	43,700	58,800	113,000	168,000	74,800	29,700	20,100	20,400
18	34,000	38,200	37,300	45,700	56,200	65,600	106,000	168,000	68,000	28,900	19,400	21,300
19	33,900	42,500	38,700	42,300	58,100	70,300	109,000	171,000	60,300	28,000	21,500	21,300
20	32,200	42,500	39,800	41,000	62,200	57,700	109,000	182,000	54,800	27,300	21,200	20,300
21	34,000	39,800	35,800	47,200	55,500	57,100	104,000	176,000	54,000	26,600	22,100	20,000
22	38,800	39,100	36,900	56,000	49,500	64,600	104,000	155,000	53,100	26,000	22,000	20,300
23	35,100	47,300	39,800	53,600	54,000	67,800	120,000	143,000	51,400	25,300	20,200	24,700
24	37,100	41,700	39,000	49,300	55,000	67,400	148,000	147,000	53,700	24,800	18,500	24,700
25	37,700	41,000	38,000	45,800	55,100	70,700	146,000	155,000	65,300	24,300	17,700	25,500
26	34,800	43,400	35,000	46,400	53,800	71,200	123,000	157,000	66,300	24,100	18,600	26,100
27	29,400	40,600	39,000	49,800	52,800	64,800	109,000	157,000	64,900	23,700	18,000	25,800
28	28,000	41,400	41,100	49,700	52,500	72,600	102,000	146,000	62,600	23,200	17,400	24,500
29	29,600	34,400	36,900	48,400	-----	93,700	106,000	130,000	65,900	22,800	17,100	21,200
30	30,400	34,300	35,500	47,500	-----	102,000	105,000	123,000	62,700	22,500	17,100	25,200
31	32,400	-----	36,700	46,600	-----	110,000	-----	149,000	-----	22,200	17,200	-----
TOTAL	966,300	1,164.9M	1,148.7M	1,720.9M	1,348.9M	1,943.3M	3,525.0M	4,438.0M	2,607.0M	1,042.0M	636,000	640,500
MEAN	31,170	38,830	37,050	55,510	48,180	62,690	117,500	143,200	86,900	33,610	20,520	21,350
MAX	38,800	51,200	41,800	105,000	62,200	110,000	148,000	182,000	130,000	56,600	24,100	26,100
MIN	24,300	31,200	31,200	35,800	41,100	47,200	102,000	76,700	51,400	22,200	17,100	17,100
AC-FT	1,917M	2,311M	2,278M	3,413M	2,676M	3,854M	6,992M	8,803M	5,171M	2,067M	1,261M	1,270M

CAL YR 1968 : TOTAL 16,260,500 MEAN 44,430 MAX 129,000 MIN 18,200 AC-FT 32,250,000
WTR YR 1969 : TOTAL 21,181,500 MEAN 58,030 MAX 182,000 MIN 17,100 AC-FT 42,010,000

M Expressed in thousands.

PALOUSE RIVER BASIN

13-3450. Palouse River near Potlatch, Idaho

LOCATION.--Lat 45°54'55", long 116°57'00", in NE¼NW¼ sec.10, T.41 N., R.5 W., Latah County, on left bank 20 ft downstream from bridge on U.S. Highway 95, 1.0 mile downstream from Deep Creek, 2.0 miles west of Potlatch, and at mile 132.2.

DRAINAGE AREA.--317 sq mi.

PERIOD OF RECORD.--October 1914 to September 1919, December 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,483.10 ft above mean sea level (Idaho Department of Highways bench mark). October 1914 to September 1919 water-stage recorder at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE.--7 years (1914-19, 1967-69), 263 cfs (11.27 inches per year, 190,500 acre-ft per year).

EXTREMES.--Current year: Maximum discharge, 3,040 cfs Apr. 1 (gage height, 13.43 ft); minimum, 1.8 cfs Sept. 3); minimum gage height, 4.09 ft July 31.

Period of record: Maximum discharge, 5,910 cfs Feb. 20, 1968 (gage height, 18.08 ft); minimum daily, 1.2 cfs Sept. 23, 24, 1967.

REMARKS.--Records good except those for winter period, which are poor. Low flows regulated at millpond in Potlatch. Small amounts of water diverted for sprinkle irrigation systems above gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	50	132	105	120	195	2,840	1,070	169	49	3.5	4.7
2	11	32	150	115	120	188	2,340	868	141	38	3.5	4.7
3	8.5	27	250	130	115	210	2,180	761	121	34	3.4	5.8
4	9.1	25	350	200	115	232	1,810	671	108	38	3.9	5.4
5	16	27	250	400	115	245	1,710	593	97	35	4.5	5.6
6	9.7	30	180	700	120	282	2,220	590	92	34	4.9	5.6
7	8.0	23	141	1,400	120	272	2,610	623	87	31	4.7	5.4
8	12	27	156	940	120	262	1,800	677	73	23	5.2	5.4
9	11	76	212	720	120	255	1,440	683	67	26	5.1	5.4
10	12	130	245	590	130	250	1,580	662	64	26	4.9	5.1
11	13	102	960	500	165	245	1,840	641	57	27	5.2	4.5
12	22	230	581	433	295	250	1,730	563	58	22	4.9	4.5
13	102	260	318	380	388	255	1,770	502	52	26	4.4	4.4
14	75	158	292	350	390	302	1,640	440	49	26	4.4	3.8
15	62	119	210	310	380	380	1,300	388	43	23	4.0	3.8
16	60	98	270	290	360	545	1,080	340	40	22	3.8	3.9
17	59	75	262	260	340	1,050	1,030	310	42	19	3.4	3.9
18	66	77	193	240	310	2,440	1,360	268	38	25	3.8	4.2
19	54	81	171	220	280	2,300	1,480	250	37	19	4.0	4.4
20	56	90	98	210	250	1,620	1,390	308	33	20	4.0	5.6
21	56	90	108	200	230	1,540	1,100	265	32	17	3.9	4.5
22	54	292	120	185	220	1,570	1,080	222	35	16	3.9	5.1
23	80	401	126	180	210	1,970	1,420	188	34	16	3.9	9.1
24	64	272	188	170	200	1,580	2,170	176	78	15	3.4	8.2
25	60	198	378	160	193	1,550	1,840	156	99	13	3.8	5.1
26	66	158	348	155	195	1,640	1,210	143	69	13	4.7	8.5
27	52	150	255	150	176	2,070	956	126	56	12	5.4	6.0
28	40	240	176	145	188	2,540	834	103	70	12	5.1	8.0
29	38	173	140	135	-----	2,300	1,070	102	67	14	4.7	5.4
30	30	150	110	130	-----	2,310	1,120	178	55	11	4.9	4.2
31	45	-----	96	125	-----	2,640	-----	258	-----	3.4	4.2	-----
TOTAL	1,264.3	3,861	7,466	10,228	5,965	33,488	47,950	13,125	2,063	705.4	133.4	160.2
MEAN	40.8	129	241	330	213	1,080	1,598	423	68.8	22.8	4.30	5.34
MAX	102	401	960	1,400	390	2,640	2,840	1,070	169	49	5.4	9.1
MIN	8.0	23	96	105	115	188	834	102	32	3.4	3.4	3.8
CFSM	.13	.41	.76	1.04	.67	3.41	5.04	1.34	.22	.07	.01	.02
IN.	.15	.45	.88	1.20	.70	3.93	5.63	1.54	.24	.08	.02	.02
AC-FT	2,510	7,660	14,810	20,290	11,830	66,420	95,110	26,030	4,090	1,400	265	318
CAL YR 1968: TOTAL	57,667.2			MEAN 158		MAX 5,440	MIN 2.0	CFSM .50	IN 6.77	AC-FT 114,400		
WTR YR 1969: TOTAL	126,409.3			MEAN 346		MAX 2,840	MIN 3.4	CFSM 1.09	IN 14.83	AC-FT 250,700		

PEAK DISCHARGE (BASE, 2,000 CFS)

DATE	TIME	G.HT.	DISCHARGE	DATE	TIME	G.HT.	DISCHARGE
3-19	0030	13.26	2,930	4- 7	0500	12.98	2,800
4- 1	0900	13.43	3,040	4-24	1900	12.01	2,330



As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are generally presented in two tables. However, no records at low-flow partial-record stations are available for the 1969 water year. A table of annual maximum discharge at crest-stage stations is given first, followed by a table of measurements made at miscellaneous sites for both low flow and high flow. In addition, four series of discharge measurements were made in Portneuf River basin during the year to determine the yield in various parts of the basin. These measurements and computed gains in reaches are summarized in a third table.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. Measurements made to rate the crest-stage stations are given in the list of miscellaneous measurements. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Bear River basin							
10-0433.5	Sheep Creek tributary No. 2 near Border, Wyo.	Lat 42°13'05", long 111°06'43", near W½ corner sec.8, T.14 S., R.46 E., on relocated U.S. Highway 30N, 300 ft downstream from original crest-gage location, about 0.3 mile northwest of crest of hill, 2½ miles west of Border, Wyo., and 12 miles southeast of Montpelier.	0.34	1965-69	4- 8-69	6.39	3
10-0908	Battle Creek tributary near Treasureton.	Lat 42°16'40", long 111°48'50", in SW¼ sec.20, T. 13 S., R.40 E., at mile 1.5, on side road from State Highway 34, and 2 miles northeast of Treasureton.	a4.5	1961-69	4-24-69	11.24	87
Tributaries between Great Salt Lake Desert and Bear River							
10-1729.7	Rock Creek near Holbrook.	Lat 42°14', long 112°44', in NW¼ sec.9, T.14 S., R.32 E., at county road crossing 6.0 miles northwest of Holbrook.	44	1962-69	3-30-69	20.75	52
Kootenai River basin							
12-3108	Trail Creek at Naples.	Lat 48°34'28", long 116°23'20", in SW¼SW¼ sec.6, T.60 N., R.1 E., at culvert crossing of Spokane International Railroad and ¼ mile north of Naples School.	a16	1961-69	4-24-69	9.16	230
12-3210	Smith Creek near Porthill.	Lat 48°57'40", long 116°33'20", in NE¼ sec.26, T.65 N., R.2 W., at U.S. Forest Service bridge, 1 mile south of Smith Creek ranger station, and 4 miles southwest of Porthill.	a70	1928-60†, 1962-69	5-30-69	7.85	3,100
Pend Oreille River basin							
12-3921	Trapper Creek near Clark Fork.	Lat 48°15'57", long 116°07'00", in NE¼ sec.30, T.57 N., R.3 E., at forest road and 9.8 miles north of Clark Fork.	1.12	1962-69	5-10 or 11-69	14.79	52
12-3928	Dover Creek near Dover.	Lat 48°15'10", long 116°37'50", in SW¼SW¼ sec.30, T.57 N., R.2 W., at U.S. Highway 2 and 1.2 miles west of Dover.	a2.2	1961-69	4- 7 or 8-69	11.60	44
12-3936	Binarch Creek near Coolin.	Lat 48°28'10", long 116°55'20", in NE¼ sec.13, T.59 N., R.5 W., at State Highway 57 and 3 miles west of Coolin.	10.4	1962-69	5-10-69	12.59	117
Spokane River basin							
12-4131	Boulder Creek at Mullan.	Lat 47°28'10", long 115°47'44", in NE¼ sec.34, T.48 N., R.5 E., at alley crossing and 150 ft above U.S. Highway 10 in Mullan.	3.13	1961-69	5-13-69	13.73	80
12-4132	Montgomery Creek near Kellogg.	Lat 47°33'10", long 116°04'17", in SE¼NE¼ sec.33, T.49 N., R.3 E., at forest road and 2½ miles northeast of Kellogg.	4.53	1962-69	1- 7-69	4.28	80
12-4151	Cherry Creek near St. Maries.	Lat 47°19'00", long 116°36'47", in SE¼ sec.20, T.46 N., R.2 W., at State Highway 5 and 2 miles west of St. Maries.	7.07	1961-69	1- 7-69	10.56	145
12-4152	Plummer Creek tributary at Plummer.	Lat 47°20'20", long 116°53'14", in SW¼ sec.7, T.46 N., R.4 W., at U.S. Highway 95 and 0.2 mile north of Plummer.	2.10	1961-69	4- 1-69	8.97	58
Salt River basin							
13-0272	Bear Canyon Creek near Freedom, Wyo.	Lat 42°58'38", long 111°11'44", in SW¼ sec.16, T.5 S., R.45 E., Boise meridian, ½ mile upstream from confluence with Tincup River at State Highway 34, and 8 miles west of Freedom.	a3.3	1961-69	4-24-69	7.85	49
McCoy Creek basin							
13-0295	McCoy Creek above reservoir near Alpine.	Lat 43°10'50", long 111°06'55", in SW¼ sec.6, T.3 S., R.46 E., at mile 1.5 and 5 miles west of Alpine.	108	1918†, 1934†, 1954-61†, 1962-69	5- 7-69	4.72	735

Annual maximum discharge at crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Discharge (cfs)
Indian Creek basin							
13-0300	Indian Creek above reservoir, near Alpine.	Lat 43°15'35", long 111°04'00", near center of sec.9, T.2 S., R.46 E., ½ mile downstream from forks of creek, at mile 3.0, and 5½ miles north of Alpine.	36.8	1918†, 1954-61†, 1962-69	5-27-69	3.24	208
Elk Creek basin							
13-0305	Elk Creek above reservoir, near Irwin.	Lat 43°19'25", long 111°06'40", in NW¼ sec.19, T.1 S., R.46 E., at mile 2.5 and 11 miles southeast of Irwin.	59.2	1918†, 1934†, 1954-61†, 1962-69	5-10-69	3.97	433
Henrys Fork basin							
13-0389	Targhee Creek near Macks Inn.	Lat 44°38'50", long 111°20'30", in NW¼NE¼ sec.11, T.15 N., R.43 E., at State Highway 87 crossing 1.5 miles west of junction of State Highway 87 and U.S. Highway 191 and 10.4 miles north of Macks Inn.	20.5	1963-69	6-5-69	8.26	239 271
13-0507	Mail Cabin Creek near Victor.	Lat 43°29'50", long 110°59'00", in SW¼ sec.23, T.41 N., R.118 W., 6th P.M., Wyoming, above confluence with Trail Creek and 9.5 miles southeast of Victor.	3.27	1962-69	6-5-69	4.43	31
13-0508	Moose Creek near Victor.	Lat 43°33'48", long 111°04'00", in NE¼ sec.30, T.3 N., R.46 E., at old highway bridge 3.7 miles southeast of Victor.	21.4	1962-69	6-5-69	10.55	200
13-0544	Milk Creek near Tetonia.	Lat 43°53'00", long 111°20'40", in NE¼ sec.2, T.6 N., R.43 E., at State Highway 33 and 10.5 miles northwest of Tetonia.	14.1	1962-69	4-3-68 4-2-69	5.90 6.71	b116 164
Willow Creek basin							
13-0576	Homer Creek near Herman.	Lat 43°11'35", long 111°37'20", in NW¼ sec.2, T.3 S., R.41 E., at road crossing 11 miles west of Herman and 12 miles southeast of Bone.	26.4	1963-69	4-24-69	10.97	255
Snake River basin							
13-0611	SNAKE River tributary near Osgood.	Lat 43°34'07", long 112°08'47", ½ mile west of northeast corner sec.30, T.3 N., R.37 E., 2.2 miles west of Osgood and 9 miles northwest of Idaho Falls.	7.64	1961-69	1-21-69	13.68	450
Blackfoot River basin							
13-0627	Angus Creek near Henry.	Lat 42°49'43", long 111°20'15", in center of sec.8, T.7 S., R.44 E., at road crossing 1.1 miles northeast of Trail guard station and 11 miles southeast of Henry.	13.9	1964-69	4-24-69	11.13	183
Portneuf River basin							
13-0737	Robbers Roost Creek near McCammon.	Lat 42°42'20", long 112°12'10", in SE¼ sec.23, T.8 S., R.36 E., at culvert on U.S. Highway 30N, 3.5 miles north of McCammon, and 6.5 miles south of Inkorn.	a5.7	1961-69	4-22-69	7.69	24
13-0753	East Fork Mink Creek near Pocatello.	Lat 42°44'20", long 112°23'30", in sec.8, T.8 S., R.35 E., 9 miles southeast of Pocatello.	14.7	1963-69	5-9-69	5.66	21
13-0756	North Fork Pocatello Creek near Pocatello.	Lat 42°53'10", long 112°23'45", in NE¼ sec.20, T.6 S., R.35 E., 300 ft upstream from confluence with South Fork Pocatello Creek and 2 miles northeast of Idaho State University.	14.0	1961-69	1-22-69	8.07	26
Raft River basin							
13-0790.7	Meadow Creek near Sublett.	Lat 42°14'30", long 113°05'08", in NW¼NW¼NE¼ sec.5, T.14 S., R.29 E., 1.2 miles downstream from Sweetzer Canyon and 6 miles southeast of Sublett.	37.7	1966-69	6-25-69	-	a25
13-0798	Heglar Canyon tributary near Rockland.	Lat 42°28'25", long 113°08'47", in SE¼SW¼ sec.11, T.11 S., R.28 E., 600 ft upstream from Heglar Canyon road crossing and 16 miles southwest of Rockland.	7.72	1958, 1962-69	6-25-69	(a)	290
Salmon Falls Creek basin							
13-1053	Salmon Falls Creek tributary near Rogerson.	Lat 42°06'10", long 114°41'10", in SW¼ sec.22, T.15 S., R.15 E., at U.S. Highway 93, ½ mile north of railroad underpass, and 9 miles southwest of Rogerson.	a4	1961-69	-	-	(c)
Mud Lake-Lost River basins							
13-1129	Huntley Canyon at Spencer.	Lat 42°21'50", long 112°11'00", in SW¼ sec.14, T.12 N., R.36 E., at railroad crossing opposite the Spencer Mercantile Store at Spencer.	3.91	1962-69	5-15-69	12.38	36
13-1172	Main Fork near Goldburg.	Lat 44°24'06", long 113°24'18", in SW¼NE¼ sec.6, T.12 N., R.26 E., at forest road ½ mile upstream from confluence with Timber Creek and 12 miles east of Goldburg.	15.6	1960-61*, 1962-69	5-15-69	5.03	185
13-1184	Wet Creek below Coal Creek, near Mackay.	Lat 44°02'49", long 113°27'00", in SW¼ sec.2, T.8 N., R.25 E., at Pass Creek road 12 miles northeast of Mackay.	11.2	1959-61*, 1962-69	5-25-69	5.90	49

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Annual maximum discharge at crest-stage partial-record stations

Annual maximum discharge at cross-stage partial-record stations							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Big Wood River basin							
13-1352	Prairie Creek near Ketchum.	Lat 43°49'00", long 114°35'50", in NW¼ sec.31, T.6 N., R.16 E., at U.S. Highway 93 and 15 miles northwest of Ketchum.	a18	1962-69	5-27-69	9.90	235
13-1358	Adams Gulch near Ketchum.	Lat 43°42'20", long 114°23'50", in SW¼ sec.2, T.4 N., R.17 E., 2.5 miles northwest of Ketchum.	10.9	1962-69	5-26-69	3.01	102
13-1414	Deer Creek near Fairfield.	Lat 43°22'11", long 114°43'08", in SE¼SW¼ sec.31, T.1 N., R.15 E., at county road 4.1 miles northeast of Fairfield.	13.2	1961-69	5-10-69	3.44	70
13-1457	Schooler Creek near Gooding.	Lat 43°11'30", long 114°39'25", in SE¼NE¼ sec.3, T.3 S., R.15 E., at State Highway 46 and 18 miles north of Gooding.	2.22	1961-69	4- 2-69	2.58	8.5
13-1473	Maldoon Creek near Garfield guard station.	Lat 43°34'08", long 113°54'50", in NE¼ sec.26, T.3 N., R.21 E., at road crossing 3 miles south of Garfield guard station.	12.2	1963-69	4-22-69	d4.36 LB	160
Clover Creek basin							
13-1540	Clover Creek near Bliss.	Lat 43°01'30", long 115°00'20", in SE¼SE¼ sec.34, T.4 S., R.12 E., just downstream from Calf Creek and 6½ miles northwest of Bliss.	140	1938-43+, 1957-62+, 1963-69	1-20-69	14.98	2,650
Little Canyon Creek basin							
13-1552	Burns Gulch near Glens Ferry.	Lat 43°11'42", long 115°19'59", in NE¼NW¼ sec.1, T.3 S., R.9 E., at road crossing 16 miles north of Glens Ferry.	.76	1961-69	4- 2-69	6.15	12
Bruneau River basin							
13-1701	Sugar Creek tributary near Grasmere.	Lat 42°33'49", long 115°54'25", in NE¼ sec.18, T.10 S., R.5 E., at State Highway 51 and 13.5 miles north of Grasmere.	4.50	1961-69	6-10-69	14.10	105
Fossil Creek basin							
13-1722	Fossil Creek near Oreana.	Lat 43°05'39", long 116°26'56", in NW¼NW¼ sec.10, T.4 S., R.1 W., at Murphy-Grand View road crossing 4 miles northwest of Oreana.	19.7	1961-69	1-21-69	16.80	160
Squaw Creek basin							
13-1728	Little Squaw Creek tributary near Marsing.	Lat 43°21'50", long 116°55'17", in SW¼ sec.3, T.1 S., R.5 W., at Highway 95 and 14 miles southwest of Marsing.	1.81	1961-69	1-21-69	d5.44	23
Boise River basin							
13-1842	Roaring River near Rocky Bar.	Lat 43°42'20", long 115°27'50", in NE¼NE¼ sec.2, T.4 N., R.8 E., 6 miles upstream from mouth and 9 miles northwest of Rocky Bar.	23.3	1958, 1963-69	5-15-69	17.03	420
13-1848	Beaver Creek near Lowman.	Lat 43°58'20", long 115°36'30", in SE¼ sec.3, T.7 N., R.7 E., at State Highway 21, at junction with road to Beaver Creek guard station, and 7½ miles south of Lowman.	a9.3	1962-69	4-23-69	8.40	135
13-2103	Bryans Run near Boise.	Lat 43°27'02", long 116°04'08", in NE¼NW¼ sec.11, T.1 N., R.3 E., at U.S. Highway 30 crossing and 15 miles southeast of Boise.	7.03	1961-69	1-21-69	10.26	58
Payette River basin							
13-2343	Five Mile Creek near Lowman.	Lat 44°06'20", long 115°27'30", in NE¼ sec.24, T.9 N., R.8 E., at State Highway 21 and 8.5 miles east of Lowman.	a7.8	1962-69	5-14-69	17.34	163
13-2351	Rock Creek at Lowman..	Lat 44°04'50", long 115°37'30", in NE¼ sec.33, T.9 N., R.7 E., on dirt road ½ mile west of Lowman.	14.6	1962-69	5-14-69	1.96	270
13-2373	Danskin Creek near Grimes Pass.	Lat 44°03'36", long 115°49'06", in NW¼ sec.1, T.8 N., R.5 E., at Banks-Lowman road 2 miles northeast of Grimes Pass.	10.1	1962-69	4-18-69	11.48	59
13-2383	Deep Creek near McCall.	Lat 43°06'00", long 116°02'18", in NW¼NE¼SW¼ sec.1, T.20 N., R.3 E., at forest road 13 miles north of McCall.	4.38	1962-69	5-25-69	14.47	250
13-2454	Tripod Creek at Smiths Ferry.	Lat 44°17'55", long 116°05'17", in SW¼ sec.10, T.11 N., R.3 E., at State Highway 15 at Smiths Ferry.	8.63	1962-69	5-10-69	5.22	96
13-2489	Cottonwood Creek near Horseshoe Bend.	Lat 43°53'35", long 116°12'09", in NW¼NE¼ sec.3, T.6 N., R.2 E., at Harris Creek road 1½ miles south of Horseshoe Bend.	6.53	1961-69	1-21-69	14.18	167
13-2506.5	Fourmile Creek near Emmett.	Lat 44°04'40", long 116°29'10", in sec.32, T.9 N., R.1 W., 300 ft upstream from mouth and 14 miles north of Emmett.	a6.5	1962-69	1-20-69	4.80	200
13-2507	Langley Gulch near New Plymouth.	Lat 44°53'59", long 116°48'30", in SE¼NW¼SW¼ sec.34, T.7 N., R.4 W., at Interstate 80N and 5 miles south of New Plymouth.	3.88	1961-69	-	-	(e)

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Weiser River basin							
13-2671	Deer Creek near Midvale.	Lat 44°23'28", long 116°52'47", in NE¼ sec.12, T.12 N., R.5 W., at Mann Creek road 9 miles southwest of Midvale.	4.60	1962-69	3-31-69	11.98	40
Brownlee Creek basin							
13-2896	East Brownlee Creek near Brownlee ranger station.	Lat 44°44'08", long 116°50'15", in SE¼ sec.8, T.16 N., R.4 W., at State Highway 71 and 0.2 mile west of Brownlee ranger station.	7.97	1962-69	5-19-69	11.65	63
Salmon River basin							
13-2924	Beaver Creek near Stanley.	Lat 43°55'10", long 114°48'48", in NE¼NE¼SE¼ sec.21, T.7 N., R.14 E., at U.S. Highway 93 crossing about ¼ mile north of Beaver Creek store and 23.5 miles southeast of Stanley.	15.0	1963-69	5-27-69	12.63	168
13-2971	Peach Creek near Clayton.	Lat 44°15'50", long 114°38'50", in SE¼SW¼ sec.24, T.11 N., R.15 E., 12.5 miles west of Clayton.	7.62	1962-69	5-27-69	5.76	27
13-2973	Holman Creek near Clayton.	Lat 44°14'52", long 114°31'43", in SE¼SW¼SW¼ sec.25, T.11 N., R.16 E., in Holman Creek campground 6.5 miles west of Clayton.	6.10	1962-69	4-13-69	5.17	10
13-2983	Malm Gulch near Clayton.	Lat 44°21'18", long 114°15'45", in NE¼NE¼SW¼ sec.19, T.12 N., R.19 E., at U.S. Highway 93 and 9.5 miles northeast of Clayton.	9.38	1962-69	4-1-69	5.90	440
13-3017	Morse Creek above diversions, near May.	Lat 44°36'55", long 113°48'25", in SW¼ sec.24, T.15 N., R.22 E., 5.2 miles east of May.	18.0	1962-69	5-15-69	5.23	85
13-3018	Morse Creek near May.	Lat 44°34'33", long 113°52'46", in NE¼ sec.5, T.14 N., R.22 E., at Pahsimeroi road crossing 2.5 miles southeast of May.	19.9	1962-69	-	-	(c)
13-3022	Twelvemile Creek near Salmon.	Lat 45°00'39", long 113°55'36", in NE¼NW¼ sec.1, T.19 N., R.21 E., at U.S. Highway 93 and 12 miles south of Salmon.	22.0	1962-63*, 1964-69	5-15-69	5.99	70
13-3031	Hood Gulch near Leadore.	Lat 44°46'25", long 113°15'05", in NW¼SW¼ sec.28, T.17 N., R.27 E., at State Highway 29 and 8.3 miles northeast of Leadore.	7.09	1962-69	(f)	(f)	(g)
13-3057	Dahlonega Creek at Gibbonsville.	Lat 45°32'50", long 113°55'40", in NW¼ sec.36, T.26 N., R.21 E., at U.S. Highway 93 and 0.25 mile southwest of Gibbonsville.	a32	1962-69	4-24-69	2.79	h76
13-3058	Hughes Creek near North Fork.	Lat 45°31'12", long 114°01'59", in SW¼NW¼SW¼ sec.6, T.25 N., R.21 E., above West Fork and Allen Creek and 8.0 miles northwest of North Fork.	15.7	1962-69	5-19-69	4.89	130
13-3155	Mud Creek near Tamarack.	Lat 44°59'48", long 116°20'54", in NW¼SW¼ sec.9, T.19 N., R.1 E., 0.5 mile upstream from Little Mud Creek and 3¼ miles northeast of Tamarack.	15.1	1937-38†, 1946-59*, 1962-69	4-23-69	3.01	180
13-3163	Indian Creek near Pollock.	Lat 45°16'50", long 116°21'12", in SE¼NE¼NE¼ sec.5, T.22 N., R.1 E., at forest road crossing 2½ miles south of Pollock.	2.66	1962-69	1-14-69	10.79	26
13-3172	Johns Creek near Grangeville.	Lat 45°56'16", long 116°12'03", on section line, 0.4 mile north of southwest corner sec.15, T.30 N., R.2 E., at farm road 4 miles west of Grangeville.	6.67	1961-69	3-31-69	15.93	359
Clearwater River basin							
13-3366	Swiftwater Creek near Lowell.	Lat 46°06'55", long 115°34'21", in SE¼SE¼NE¼ sec.16, T.32 N., R.7 E., at forest road 2½ miles southeast of Lowell.	6.19	1962-69	5-13-69	13.27	86
13-3366.5	East Fork Papoose Creek near Powell ranger station.	Lat 46°32'07", long 114°45'52", in SE¼SW¼NE¼ sec.24, T.37 N., R.13 E., at forest road 3 miles northwest of Powell ranger station.	4.51	1962-69	5-13-69	12.82	70
13-3368.5	Weir Creek near Powell ranger station.	Lat 46°27'31", long 115°01'51", near W¼ corner sec.13, T.36 N., R.11 E., 200 ft upstream from U.S. Highway 12 and 16 miles west of Powell ranger station.	12.2	1962-69	5-13-69	17.22	206
13-3372	Red Horse Creek near Elk City.	Lat 45°47'39", long 115°23'59", in SW¼SW¼NW¼ sec.6, T.28 N., R.9 E. (unsurveyed), at Elk City to Dixie road and 3.0 miles southeast of Elk City. At site 75 ft downstream at different datum prior to July 30, 1964.	9.13	1962-69	4-23-69	13.93	75
13-3377	Peasley Creek near Golden.	Lat 45°49'05", long 115°49'01", in SE¼ sec.27, T.29 N., R.5 E. (unsurveyed), at State Highway 14 and 6.6 miles west of Golden.	14.2	1962-69	4-23-69	9.75	65
13-3382	Sally Ann Creek near Stites.	Lat 46°00'40", long 115°57'40", in SE¼ sec.21, T.31 N., R.4 E., at State Highway 13 and 5.8 miles south of Stites.	a15	1961-69	1-6-69	9.83	245
13-3397	Canal Gulch Creek at Pierce ranger station.	Lat 46°29'50", long 115°47'30", in NW¼ sec.2, T.36 N., R.5 E., at Pierce ranger station ¼ mile north of Pierce.	a6.0	1962-69	4-23-69	13.37	105

Annual maximum discharge at crest-stage partial-record stations

Annual maximum discharge at crest-stage partial-record stations					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cfs)
Clearwater River basin--Continued							
13-3399	Deer Creek near Orofino.	Lat 46°29'30", long 116°10'30", in SW¼ sec.3, T.36 N., R.2 E., at dirt road 3.0 miles east of Orofino.	a6.8	1962-69	3-31-69	7.74	90
13-3411	Cold Springs Creek near Craigmont.	Lat 46°14'10", long 116°31'06", NE¼ sec.1, T.33 N., R.2 W., at U.S. Highway 95 and 2.7 miles west of Craigmont.	8.07	1961-65, 1967-69	3-31-69	15.00	115
13-3415	Potlatch River at Kendrick.	Lat 46°37', long 116°39', in NW¼ sec.25, T.38 N., R.3 W., at Mill Street bridge in Kendrick.	425	1946-60†, 1961-69	3-27 or 28-69	10.13	6,820
Palouse River basin							
13-3447	Deep Creek tributary near Potlatch.	Lat 47°01'28", long 116°52'57", in SE¼ sec.31, T.43 N., R.4 W., at U.S. Highway 95 and 7 miles north of Potlatch.	2.90	1961-69	3-18-69	11.86	56
13-3448	Deep Creek near Potlatch.	Lat 46°57'38", long 116°56'04", in SW¼ sec.23, T.42 N., R.5 W., on farm road 3.3 miles north-west of Potlatch.	36.6	1961-69	3-18 or 19-69	8.77	580

* Miscellaneous measurements only.

† Operated as a continuous-record gaging station.

a Approximately.

b Revised.

c No evidence of flow during water year.

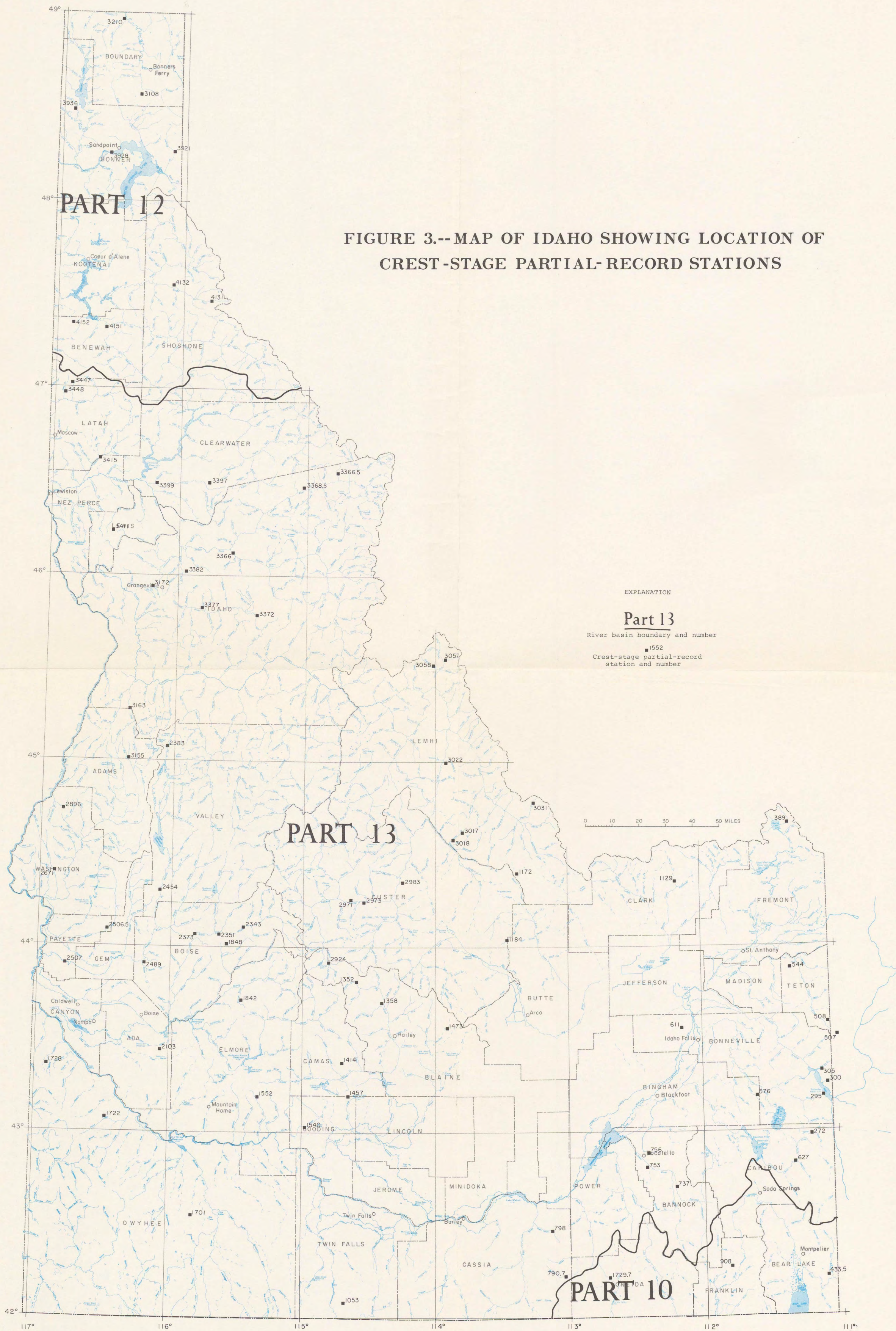
d Referred to gage on left bank below crossing.

e No flow.

f Not determined.

g Less than 13 cfs, but greater than 4.0 cfs.

h Maximum observed, but was probably higher.



Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

Discharge measurements made at miscellaneous sites during water year 1969.

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Part 10 Bear River basin						
Sheep Creek tributary No. 2.	Sheep Creek.....	Operated as a crest-stage station. See Station No. 10-0433.5.	0.34	1965-68	4-24-69	a.3
Battle Creek tributary.	Battle Creek.....	Operated as a crest-stage station. See Station No. 10-0908.	b4.5	1961-68	2-12-69 4- 2-69 5-27-69	a1.0 11.2 a.2
Malad River.....	Bear River.....	Lat 42°13'20", long 112°21'50", in sec.10, T.14 S., R.35 E., Oneida County, at springs 1 mile above dam on Samaria Reservoir No. 2, 5.8 miles northwest of Malad City, and 8.8 miles upstream from Little Malad River.	ac3.3	1932†, 1941-47†, 1948-68	10-30-68 1- 8-69 2-11-69 3-17-69 4-22-69 5-20-69 7- 3-69 8- 7-69 9-16-69	5.92 5.22 6.33 5.75 7.13 7.50 7.66 7.73 7.58
Tributaries between Great Salt Lake Desert and Bear River						
Rock Creek.....	Deep Creek.....	Operated as a crest-stage station. See Station No. 10-1729.7.	44	1962-68	10-29-68 1-20-69 3-30-69 4- 2-69 7- 3-69	a.7 a1.2 28.9 42.6 a1.1
Part 12 Kootenai River basin						
Trail Creek.....	Deep Creek.....	Operated as a crest-stage station. See Station No. 12-3108.	b16	1961-68	12-13-68 3-28-69 4- 8-69 4-24-69	46.9 48.4 94.3 153
Smith Creek.....	Kootenai River...	Operated as a crest-stage station. See Station No. 12-3210.	b70	1928-61†, 1963-68	4-25-69 5-10-59 5-30-69	522 1,260 1,890
Kootenai River...	Columbia River...	Lat 49°29'40", long 117°20'04", at Grohman Narrows, 2 miles below Nelson, British Columbia; measurements referred to gage No. 10 at Nelson (station 8NJ-9 of Water Survey of Canada).	17,700	1932-68	2-13-69 6-17-69 9-30-69	8,140 99,400 13,800
Pend Oreille River basin						
Trapper Creek....	Lightning Creek..	Operated as a crest-stage station. See Station No. 12-3921.	1.12	1961-68	5-11-69 5-20-69	32.8 20.9
Dover Creek.....	Pend Oreille River.	Operated as a crest-stage station. See Station No. 12-3928.	b2.2	1961-68	3-27-69 4- 8-69 4-18-69	16.5 30.3 32.1
Binarch Creek....	Priest River.....	Operated as a crest-stage station. See Station No. 12-3936.	10.4	1953, 1958, 1961-68	4-16-69 5-15-69 7- 1-69	72.9 35.3 9.02
Spokane River basin						
Boulder Creek....	South Fork Clear d'Alene River..	Operated as a crest-stage station. See Station No. 12-4131.	3.13	1961-68	5-13-69	76.9
Montgomery Creek.	do.....	Operated as a crest-stage station. See Station No. 12-4132.	4.53	1962-68	11-14-68 3-20-69 4-10-69 4-18-69	12.5 16.8 35.5 41.7
Cherry Creek.....	St. Joe River....	Operated as a crest-stage station. See Station No. 12-4151.	7.07	1961-68	1- 8-69 3-21-69 4- 4-69 4-29-69 6-19-69	41.3 31.5 51.5 b5 b.3
Plummer Creek tributary.	Plummer Creek....	Operated as a crest-stage station. See Station No. 12-4152.	2.10	1961-68	1- 8-69 3-21-69 4- 4-69 4-29-69	14 a15 6.4 a1.5
Part 13 Salt River basin						
Bear Canyon Creek	Tincup River....	Operated as a crest-stage station. See Station No. 13-0272.	b3.3	1961-68	4-11-69 5- 6-69 5-14-69	a2.8 15.7 14.1
McCoy Creek basin						
McCoy Creek.....	Snake River.....	Operated as a crest-stage station. See Station No. 13-0295.	108	1917-18†, 1934†, 1953-61†, 1962-68	5-14-69	645
Indian Creek basin						
Indian Creek.....	Snake River.....	Operated as a crest-stage station. See Station No. 13-0300.	36.8	1917-18†, 1936, 1953-61†, 1962-68	5-28-69 6- 5-69	186 157

See footnotes at end of table, p. 293.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1969						
Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Elk Creek basin						
Elk Creek.....	Snake River.....	Operated as a crest-stage station. See Station No. 13-0305.	59.2	1904, 1917-18†, 1934†, 1953-61†, 1962-68	6- 5-69	321
Henrys Fork basin						
Targhee Creek....	Henrys Lake.....	Operated as a crest-stage station. See Station No. 13-0389.	b20	1904, 1924, 1929-34, 1962-68	5-19-69 6-25-69 7-22-69	121 96.9 40.5
Big Springs..... 0405	Henrys Fork.....	Lat 44°29'52", long 111°15'33" in NE¼ sec.33, T.14 N., R.44 E., Fremont County, at site of former gaging station, 0.2 mile downstream from road bridge, and 0.5 mile southeast of Big Springs railroad station.	-	1922, 1924-25†, 1926-28, 1931, 1946-50, 1959-65, 1967-68	11- 4-69	190
Warm River above Springs. 0442	Henrys Fork.....	Lat 44°12'24", long 111°15'04", 300 ft east of ¼ cor. of sec.10 T.10 N., R.44 E., Fremont County, at upstream edge of Warm River Fish hatchery and 7.5 miles northeast of Warm River.	-	-	8-21-68 10-10-68 11-18-68 12-31-68 2-19-69 3-28-69 5-12-69 6-13-69	39.9 31.2 34.1 18.8 16.0 28.0 235 73.1
Warm River below Springs. 0443	Henrys Fork.....	Lat 44°12'15", long 111°15'10" in NE¼SE¼ sec.9, T.10 N., R.44 E., Fremont County, 800 ft downstream from Warm River fish hatchery and 7.5 miles northeast of Warm River.	-	-	8-21-68 10-10-68 11-18-68 12-31-68 2-19-69 3-28-69 5-12-69 6-13-69	207 207 212 187 174 198 434 283
Mail Cabin Creek.	Trail Creek.....	Operated as a crest-stage station. See Station No. 13-0507.	3.27	1962-68	6-12-69	21.9
Moose Creek.....	do.....	Operated as a crest-stage station. See Station No. 13-0508.	21.4	1962-68	6-13-69	127
Milk Creek.....	Teton River.....	Operated as a crest-stage station. See Station No. 13-0544.	14.1	1962-68	4- 3-69 4-23-69 5-22-69	27.0 a.05 a.3
Texas Slough..... nr Rexburg	Henrys Fork.....	Lat 43°47'17", long 111°53'44", in SE¼SW¼ sec.5, T.5 N., R.39 E., Madison County, 4.2 miles northwest of Thornton.	-	-	5-12-69	184
Willow Creek basin						
Homer Creek.....	Grays Lake Outlet.	Operated as a crest-stage station. See Station No. 13-0576.	26.4	1962-68	4-23-69 5-26-69 7- 1-69	+172 a6.0 a4.0
Snake River basin						
Snake River tributary.	Snake River.....	Operated as a crest-stage station. See Station No. 13-0611.	7.64	1961-68	12-12-68 1-15-69 1-21-69 3-25-69	0 0 243 0
Blackfoot River basin						
Angus Creek.....	Blackfoot River.	Operated as a crest-stage station. See Station No. 13-0627.	13.9	1962-68	12- 3-68 5- 6-69 5-26-69 7- 1-69	a1.9 49.8 a5.0 a2.2
Portneuf River basin						
Portneuf River... @ Pebble 0724	Snake River.....	Lat 42°45'00", long 112°00'00" in SW¼ sec.3, T.8 S., R.38 E., Caribou County, at Jim Mabey Ranch and 0.5 mile north of Pebble.	-	1923-25	10-10-68 10-31-68 12- 2-68 1- 9-69 2-13-69 3-19-69 5-28-69 6-11-69 7- 2-69 8- 7-69 9-16-69	69.5 82.3 86.3 84.6 98.5 97.5 214 181 149 160 133
Portneuf River... @ Lava Hot Sp 0728	Snake River.....	Lat 42°37'00", long 112°01'00" in SW¼ sec.22, T.9 S., R.38 E., Bannock County, near upstream city limits of Lava Hot Springs.	-	-	10-24-68 12- 4-68 1- 9-69 2-13-69 3-19-69 3-30-69 4- 1-69 4- 3-69 4-24-69 5-28-69	92.0 107 111 131 120 312 535 898 591 373

Discharge measurements made at miscellaneous sites during water year 1969

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Portneuf River basin--Continued						
Robbers Roost Creek.	Portneuf River..	Operated as a crest-stage station. See Station No. 13-0737.	65.7	1961-68	12- 5-68 1-20-69 3-30-69 4-24-69 5-28-69	a1.2 a2.4 a6.0 20.6 a5.5
East Fork Mink Creek.	Mink Creek.....	Operated as a crest-stage station. See Station No. 13-0753.	14.7	1912, 1963-68	3-18-69 4-29-69 6-11-69	a2.0 10.7 6.39
North Fork Pocatello Creek.	Pocatello Creek.	Operated as a crest-stage station. See Station No. 13-0756	14.0	1961-68	1-20-69 2- 7-69 3-30-69 4-29-69	4.82 a1.5 19.1 13.5
Bannock Creek... 0762	Portneuf River..	Lat 42°53'10", long 112°38'30", near center of sec. 20, T.6 S., R.33 E., Power County, at Highway 30 N crossing, 10 miles west of Pocatello	413	1962-63, 1965	4- 3-69	156
Spring Creek.... 13075981 E Bronco Rd	Portneuf River..	Lat 43°05'45", long 112°30'15", in NE¼NW¼ sec.8, T.4 S., R.34 E., Bingham County, below Broncho road and 5 miles northwest of Fort Hall.	-	1968	10-17-68 1- 3-69 3-14-69	325 305 289
Snake River basin						
Ruegar Springs.. hr Am FLS 0766	SNAKE RIVER.....	Lat 42°46'00" (revised) long 112°52'55", in SW¼ sec.31, T.8 S., R.31 E., Power County, at fish hatchery and 0.9 mile downstream from American Falls Dam.	-	1927-29, 1932-53, 1961-68	5- 3-69 5-17-69 5-31-69 6-16-69 6-26-69 7-11-69 7-25-69 8-15-69 8-29-69	18.3 a18 19.4 a19 23.0 a23 22.2 a22 a21
Rock Creek..... 0776.50	do.....	Lat 42°39'10", long 113°01'00" in SW¼ sec.12, T.9 S., R.29 E., Power County, 1,000 ft from mouth in Register Rock State Park and 9 miles northwest of Rockland.	320	1910, 1929, 1962, 1964	10-29-69 4- 3-69	a13 68.1
Raft River basin						
Heglar Canyon tributary.	Heglar Canyon...	Operated as a crest-stage station. See Station No. 13-0798.	7.72	1961-68	3- 3-69 4-15-69 4-19-69 8-19-69	0 0 0 0
Raft River..... 0799.80	SNAKE RIVER.....	Lat 42°35'20", long 113°14'10", in NE¼NE¼ sec.1, T.10 S., R.27 E., Cassia County, 0.5 mile south of Yale (new townsite).	1,510	1929, 1965-68	10- 5-68 4-15-69 8-12-69	1.17 1.22 1.72
Tributaries between Snake River at Milner and Salmon Falls Creek						
Devils Washbowl Spring. 0896	SNAKE RIVER.....	Lat 42°35'18", long 114°20'45", in NE¼NE¼ sec.4, T.10 S., R.18 E., Jerome County, at old abandoned powerplant, about 0.2 mile upstream from mouth on right bank of Snake River, 0.5 mile upstream from Twin Falls, and 3.5 miles north of Kimberly.	-	1902,1917, 1923-24, 1950-59, 1963-68	4-11-69	16.6
Devils Corral Spring (upper outlet). 0901	do.....	Lat 42°35'38", long 114°21'55", in SE¼SE¼ sec.32, T.9 S., R.18 E., Jerome County, 100 ft above point where flow cascades into right bank of Snake River at mile 617.1, about 2 miles upstream from Shoshone Falls and powerplant, and 4 miles north of Kimberly.	-	1902, 1923-24, 1939, 1950-59, 1963-68	4- 8-69	42.3
Devils Corral Spring (lower outlet). 0901.01	do.....	Lat 42°36'01", long 114°22'30", in SE¼NW¼ sec.32, T.9 S., R.18 E., Jerome County, 0.1 mile upstream from mouth on right bank of Snake River, 0.7 mile northwest of upper outlet, and 4.5 miles north of Kimberly.	-	1902,1923, 1950-59, 1963-68	4- 8-69	6.66
Unnamed Spring No. 1.	do.....	Lat 42°36'03", long 114°23'36", in SW¼NE¼ sec.31, T.9 S., R.18 E., Jerome County, near mouth on right bank of Snake River, 0.5 mile upstream from Shoshone powerplant, and 4 miles northeast of Twin Falls.	-	1950-59, 1963-68	4-11-69	1.84
Unnamed Spring No. 2.	do.....	Lat 42°35'52", long 114°23'55", in NW¼SW¼ sec.31, T.9 S., R.18 E., Jerome County, on right bank of Snake River just above Shoshone Falls and 4 miles northeast of Twin Falls.	-	1950-59, 1963-68	4-11-69	6.29
Blue Lakes Spring Outlet. 0915	SNAKE RIVER.....	Lat 42°36'30", long 114°28'34" in SW¼SW¼ sec.28, T.9 S., R.17 E., Jerome County, at point of entry to right bank of Snake River at river mile 610.3 and 4 miles north of Twin Falls.	-	1902,1910, 1913-14, 1917-47, 1950-59, 1963-68	4-11-69	203

Discharge measurements made at miscellaneous sites during water year 1969

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Tributaries between Snake River at Milner and Salmon Falls Creek--Continued						
Warm Creek..... 0917	do.....	Lat 42°37'15", long 114°29'55", in NW¼NW¼ sec. 29, T.9 S., R.17 E., Jerome County, 0.6 mile upstream from point of entry to right bank of Snake River, 1.5 miles northwest of Blue Lakes Spring Outlet, and 4.6 miles northwest of Twin Falls.	-	1902, 1917, 1931, 1950-59, 1963-68	4-11-69	d14.5
Rock Creek..... 0930	do.....	Lat 42°35'37", long 114°33'06", in SW¼SE¼SW¼ sec. 36, T.9 S., R.16 E., Twin Falls County, just downstream of county road bridge at old station site, 2.7 miles south of mouth, 3.8 miles northwest of Twin Falls Post Office, and 4.2 miles east of Filer railroad station.	277	1922-47+, 1968	11- 7-68 4-15-69 9-12-69	a150 a250 a100 ✓
Ellisons Springs	do.....	Lat 42°38'13", long 114°33'40", in NE¼ sec. 22, T.9 S., R.16 E., Jerome County, near entry to right bank of Snake River, 1.3 miles downstream from Rock Creek, and 6.5 miles south of Jerome.	-	1950-59, 1963-68	4-14-69	2.27
Crystal Springs.	do.....	Lat 42°39'36", long 114°38'32", in sec. 12, T.9 S., R.15 E., Gooding County, a series of springs along a 0.6 mile reach of the right bank of Snake River, 1 mile upstream from Niagara Springs, and 6.5 miles north of Filer.	-	1902, 1917, 1919, 1924-25, 1931, 1950-59, 1963-68	4-12-69	468
Cedar Draw..... 0939	do.....	Lat 42°37'25", long 114°39'12", in SW¼SW¼ sec. 24, T.9 S., R.15 E., Twin Falls County, at road crossing, 2.5 miles upstream from mouth, 4.3 miles northwest of Filer, and 5.6 miles east of Buhl.	-	1955-58+, 1968	11- 6-68 4-14-69 9-11-69	58.6 29.1 77.1
Clear Lakes Spring Outlet.	do.....	Lat 42°40'01", long 114°46'45", in SW¼SE¼ sec. 2, T.9 S., R.14 E., Gooding County, at Clear Lakes powerplant of Idaho Power Co. and 4.5 miles north of Buhl.	-	1902, 1913-14, 1917-21+, 1924, 1926, 1937, 1950-59, 1963-68	4-10-69	4197
Deep Creek..... 0950	S Snake River....	Lat 42°37'05", long 114°50'40", in SE¼NW¼ sec. 29, T.9 S., R.14 E., Twin Falls County, on right bank 0.2 mile downstream from Twin Falls Canal Co. diversion dam, 0.2 mile upstream from U.S. Highway 30, 4.5 miles northwest of Buhl, and 5 miles upstream from mouth.	-	1913, 1954, 1955-58+, 1968	11- 6-68 5-28-69 9-15-69	241 11.4 87.9
Briggs Creek....	do.....	Lat 42°40'20", long 114°49'00", in NW¼SE¼ sec. 4, T.9 S., R.14 E., Gooding County, 500 ft upstream from mouth on right bank of Snake River, 2 miles downstream from Clear Lakes Spring Outlet, and 6 miles northwest of Buhl.	-	1902, 1913, 1917-20, 1924-25, 1931, 1950-59, 1963-68	4-10-69	d108
Banbury Springs.	do.....	Lat 42°41'31", long 114°49'21", in SE¼NW¼ sec. 33, T.8 S., R.14 E., Gooding County, at outlet on right bank of Snake River and 7 miles northwest of Buhl.	-	1902, 1913, 1917, 1919-20, 1924-25, 1950-59, 1963-68	4-13-69	d123
Unnamed Spring..	do.....	Lat 42°41'51", long 114°49'21", in SE¼SW¼ sec. 28, T.8 S., R.14 E., Gooding County, on right bank of Snake River, 0.4 mile south of Blind Canyon Spring, and 7.5 miles northwest of Buhl.	-	1950-59, 1963-68	4-13-69	4.16
Blind Canyon Spring.	do.....	Lat 42°42'12", long 114°49'20", in SE¼NW¼ sec. 28, T.8 S., R.14 E., Gooding County, at outlet on right bank of Snake River, 1,300 ft upstream from Box Canyon Springs outlet, and 8 miles northwest of Buhl.	-	1902, 1917, 1919, 1950-59, 1963-68	4-13-69	10.2
Salmon Falls Creek basin						
Salmon Falls Creek tributary	Salmon Falls Creek.	Operated as a crest-stage station. See Station No. 13-1053.	b4	1962-68	3-11-69 4-23-69 5-27-69 9-11-69	0 0 0 0
Mud Lake-Lost River basins						
Huntley Canyon..	Beaver Creek...	Operated as a crest-stage station. See Station No. 13-1129.	3.91	1962-68	4-16-69 4-25-69 5- 5-69 5- 7-69	a2.0 8.01 19.2 21.4

Discharge measurements made at miscellaneous sites during water year 1969

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Mud Lake-Lost River basins--Continued						
Birch Creek diversion..... 1110.23	from Birch Creek.	Lat 44°08'40", long 112°54'10", in NE¼SE¼ sec.5, T.9 N., R.30 E., Clark County, near head on left bank, about 0.5 mile downstream from State Highway 28 bridge south of Blue Dome Inn, and 33.4 miles west of Dubois.	-	1968	5-26-69 6-26-69 7-30-60 9- 3-69	4.90 4.30 3.77 3.27
Main Fork.....	Sawmill Creek...	Operated as a crest-stage station. See Station No. 13-1172.	15.6	1960-68	4-26-69 5-29-69	a29 109
Wet Creek.....	Little Lost River	Operated as a crest-stage station. See Station No. 13-1184.	11.2	1959-68	5-29-69 6-26-69	a17.3 a8.1
Tributaries to Snake River from Thousand Springs to Big Wood River						
Sand Springs Creek. 1326	Snake River.....	Lat 42°43'36", long 114°50'00", in SE¼ sec.17, T.8 S., R.14 E., Gooding County, 0.5 mile upstream from mouth, on right bank of the Snake River, and 7 miles southeast of Hagerman.	-	1902, 1912-13, 1917-21, 1924-25, 1932, 1954-59, 1963-68	4-14-69	d85.2
Thousand Springs	do.....	Lat 42°45', long 114°51'. Springs enter right bank of Snake River between mile 154.05 on river profile, near line between secs.17 and 20, T.8 S., R.14 E., and mile 151.15 on river profile, about 200 ft upstream from line between sec.1, T.8 S., R.13 E., and sec.6, T.8 S., R.14 E., Gooding County, 6 miles southwest of Hagerman.	-	1920, 1950-59, 1963-68	4- 9-68	e1,115
Riley Creek.....	do.....	Lat 42°45'46", long 114°51'31", in SW¼NE¼ sec.6, T.8 S., R.14 E., Gooding County, at Hagerman Hatchery of U.S. Fish & Wildlife Service, 100 ft downstream from small unnamed spring entering from right, 260 ft upstream from Riley Creek below Lewis Spring gaging station, 300 ft downstream from mouth of Lewis Creek, about 2 miles upstream from mouth, and 4.2 miles southeast of Hagerman.	-	1950-59, 1963-68	4-13-69	d61.2
Billingsley Creek	do.....	Lat 42°46'35", long 114°50'55", in SW¼SW¼NW¼ sec.32, T.7 S., R.14 E., Gooding County, 0.1 mile downstream from head of creek, 3.8 miles southeast of Hagerman, and about 7.5 miles upstream from mouth.	-	1902, 1917,1931, 1950-59, 1963-68	4-14-69	d38.7
Do.....	do.....	Lat 42°50'10", long 114°53'40", in SW¼NE¼ sec.11, T.7 S., R.13 E., Gooding County, 700 ft northwest of U.S. Highway 30 bridge and 1.4 miles north of Hagerman.	-	1917,1919, 1950-59, 1963-68	4-14-69	145
Birch Creek..... 1351	do.....	Lat 42°51'10", long 114°53'30", in SE¼SE¼ sec.34, T.6 S., R.13 E., Gooding County, just downstream from left bank tributary, 0.5 mile upstream from entry to right bank of Snake River, 0.8 mile south of Big Wood River, and 2.5 miles north of Hagerman.	-	1917-1919, 1950-59, 1963-68	4-14-69	d8.95
Big Wood River basin						
Prairie Creek...	Big Wood River.	Operated as a crest-stage station. See Station No. 13-1352.	b18	1962-68	5-27-69 6-24-69	a216 a101
Adams Gulch.....	do.....	Operated as a crest-stage station. See Station No. 13-1358.	10.9	1962-68	5-27-69 6-24-69	a29.2 a7.2
Deer Creek.....	Camas Creek....	Operated as a crest-stage station. See Station No. 13-1414.	13.2	1961-68	4- 9-69 4-21-69 5-26-69	48.4 56.4 a15
Schooler Creek..	Thorn Creek....	Operated as a crest-stage station. See Station No. 13-1457.	2.22	1961-67	4-27-69	a2.1
Muldoon Creek...	Copper Creek...	Operated as a crest-stage station. See Station No. 13-1473.	12.2	1962-67	5-30-69 6-25-69	72.0 a35
Silver Creek.... 1501a, 1515 Tikura River.	Little Wood River.	Lat 42°14'10", long 114°59'10", in NW¼ sec.20, T.2 S., R.21 E., Blaine County, at highway crossing 5.4 miles south of Carey.	-	-	4- 4-69	430
Little Wood River. 1515 @ Shoshone	Big Wood River.	Lat 42°56'10", long 114°24'10", in sec.2, T.6 S., R.17 E., Lincoln County, at old gaging station site 400 ft upstream from bridge in Shoshone.	b620	1922-60+	4- 5-69	802
Cove Creek.....	Big Wood River.	Lat 42°52'01", long 114°52'06", in SW¼SW¼SW¼ sec.25, T.6 S., R.13 E., Gooding County, at walkway across outlet of Cove Creek.	-	-	5-23-69 9- 9-69	63.4 63.1

Discharge measurements made at miscellaneous sites during water year 1969

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Big Wood River basin--Continued						
Malad Springs....	Big Wood River...	Lat 42°52', long 114°51' to 114°54'. Springs head in SE¼ sec.24, T.6 S., R.13 E., Gooding County, and continue to accumulate to Big Wood River until it enters the right bank of Snake River at mile 571.2 in NW¼ sec.34, T.6 S., R.13 E., 3 miles north of Hagerman.	-	1902, 1910-11, 1913-1917, 1919-21, 1924-25, 1946, 1950-59, 1963-64, 1966-68	8- 5-69	f1,265
Clover Creek basin						
Clover Creek.....	Snow River.....	Operated as a crest-stage station. See Station No. 13-1540.	140	1938-43, 1957-62, 1963-66, 1968	1-20-69 3- 3-69 4-14-69	1720 35.1 246
Little Canyon Creek basin						
Burns Gulch.....	Little Canyon Creek.	Operated as a crest-stage station. See Station No. 13-1552.	.76	1961-68	5- 1-69 6- 3-69	3.19 0
Canyon Creek basin						
Canyon Creek..... 1610.30	Snow River.....	Lat 43°12'40", long 115°41'30", in NE¼NW¼ sec. 36, T.2 S., R.6 E., Elmore County, immediately below headgates of Mountain Home feeder canal diversion and 5 miles north of Mountain Home.	-	1934, 1944-46	3- 3-69	13.4
Bruneau River basin						
Little Jacks Creek (Jacks Creek).	Jacks Creek (Little Valley Creek).	Lat 42°47'15", long 115°58'47", in sec.7, T.7 S. R.4 E., Owyhee County, 200 ft upstream from confluence with Big Jacks Creek (Wickahoney Creek) and 11 miles south of Bruneau.	b100	1939-50+	1-15-69	7.10
Sugar Creek tributary.	Sugar Creek.....	Operated as a crest-stage station. See Station No. 13-1701.	4.50	1961-68	4-29-69 6- 2-69 8-26-69	0 0 0
Fossil Creek basin						
Fossil Creek.....	Snow River.....	Operated as a crest-stage station. See Station No. 13-1722.	19.7	1961-68	11-25-68 3- 6-69 4-29-69	0 0 0
Squaw Creek basin						
Little Squaw Creek tributary	Squaw Creek.....	Operated as a crest-stage station. See Station No. 13-1728.	1.81	1961-68	12-28-68 2-25-69 6-25-69	0 0 a.02
Snake River basin						
Snow River.....	Columbia River...	Lat 43°43'51", long 117°04'25", in SW¼SE¼NW¼ sec.23, T.21 S., R.46 E. (Willamette meridian), Malheur County, at mile 402, at road crossing 0.5 mile south of Adrian, Oreg.	-	-	8- 1-69	7,670
Owyhee River basin						
Owyhee River.....	Snow River.....	Lat 43°46'36", long 117°10'39", in SE¼NE¼ sec.3, T.21 S., R.46 E., (Willamette meridian), Malheur County, at gravel road crossing 1.2 miles west of highway 201 crossing and 1.5 miles southwest of Owyhee, Oreg.	-	1890-97+, 1903-16+, 1920-29+	8- 1-69	43.6
Boise River basin						
Roaring River....	Middle Fork Boise River.	Operated as a crest-stage station. See Station No. 13-1842.	23.3	1958, 1963-68	10- 1-68 10-28-68 5-27-69 7-28-69	17.8 16.1 274 24.4
Beaver Creek.....	Crooked Creek....	Operated as a crest-stage station. See Station No. 13-1848.	b9.3	1961-67	5-14-69	73.1
Cottonwood Gulch. 2050	Boise River.....	Lat 43°37'11", long 116°11'04", in SE¼SW¼ sec.2, T.3 N., R.2 E., Ada County, on U.S. Military Reservation and 1 mile east of Boise Post Office.	16.0	1942, 1954, 1965, 1967	1-22-69 1-22-69 2-13-69	+a100 69.0 11.7
Hulls Gulch..... 2055.50	Boise River.....	Lat 43°38'26", long 116°11'27", in NW¼NW¼SW¼ sec.25, T.4 N., R.2 E., Ada County, 20 ft below old weir, 0.2 mile above road crossing of Boise Water Co. Buildings, and 0.6 mile north of Idaho State Capitol Building in Boise.	3.88	-	1-22-69	12.9
Crane Gulch..... 2056.30	Boise River.....	Lat 43°39'07", long 116°11'12", in SW¼NE¼SW¼ sec.26, T.4 N., R.2 E., Ada County, at first upstream weir in Crane Creek golf course, above maintenance buildings and holding ponds, 0.2 mile upstream of Curling Drive, and 1.0 mile north of Idaho State Capitol Building in Boise.	6.28	-	1-22-69 1-22-69	+13.4 9.5
Stuart Gulch..... 2057	Boise River.....	Lat 43°39'28", long 116°13'48", in NW¼SW¼NW¼ sec.28, T.4 N., R.2 E., Ada County, 700 ft upstream from 36th Street (extension) culvert, 800 ft upstream from Hill Road culvert, and 3.2 miles northwest of Idaho State Capitol Building in Boise.	9.04	1965, 1967	1-22-69	19.1

Discharge measurements made at miscellaneous sites during water year 1969

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Boise River basin--Continued						
Dry Creek..... 2075	Boise River.....	Lat 43°43'55", long 116°18'15", in NW¼ sec.35, T.5 N., R.1 E., Ada County, at discontinued gaging station No. 13-2075, 80 ft downstream from State Highway 55 crossing and 3.6 miles northeast of Eagle at mile 4.2.	59.4	1954-68†	1-21-69	+337
Boise River..... 2130	SNAKE River.....	Lat 43°46'54", long 116°58'17", on line between sec.7 and 8, T.5 N., R.5 W., Canyon County, at road crossing 1.2 miles west of Parma. e mile 3.8	3,970	-	7-31-69 8- 1-69 8-26-69 9-17-69	604 558 588 847
Malheur River basin						
Malheur River.... 8340	SNAKE River.....	Lat 44°03'23", long 116°58'42", in SW¼SW¼ sec. 28, T.17 S., R.47 E. (Willamette meridian), Malheur County, at Highway 201 crossing near Ontario, Oreg.	-	-	8- 1-69	201
Payette River basin						
Five Mile Creek..	South Fork Payette River..	Operated as a crest-stage station. See Station No. 13-2343.	b7.8	1961-68	5-14-69	146
Rock Creek.....	do.....	Operated as a crest-stage station. See Station No. 13-2351.	14.6	1961-68	5-15-69	119
Danskin Creek....	do.....	Operated as a crest-stage station. See Station No. 13-2373.	10.1	1961-68	2- 5-69 4-21-69 5-15-69	4.97 19.4 7.12
Deep Creek.....	North Fork Payette River..	Operated as a crest-stage station. See Station No. 13-2383.	4.38	1961-68	6-18-69 8- 5-69	35.6 .30
Cottonwood Creek.	Harris Creek.....	Operated as a crest-stage station. See Station No. 13-2489.	6.53	1961-67	1-20-69 2- 7-69 5-28-69	46.4 4.37 a.33
Black Canyon Canal. 2494	from Payette River.	Lat 43°56'36", long 116°26'20", in SE¼ sec. 22, T.7 N., R.1 W., Gem County, 0.2 mile downstream from Black Canyon Dam and 5 miles north-east of Emmett.	-	1925-31, 1950,1955, 1957-68	7- 7-69 8-24-69 9-29-69	1,260 1,250 617
Fourmile Creek...	Big Willow Creek.	Operated as a crest-stage station. See Station No. 13-2506.5.	b6.5	1962-67	10-22-68 11-26-68 12-27-68 1-13-69 1-20-69 2-10-69 4- 8-69 7-14-69 2-10-69	a.4 2.00 5.08 9.52 126 2.99 2.25 a.05 2.08
Rock Creek.....	do.....	Lat 44°03', long 116°29', in SE¼ sec.5, T.8 N., R.1 W., Gem County, at crossing on Emmett-Council road and 12 miles north of Emmett.	4.24	1962-68		
Langley Gulch....	Payette River....	Operated as a crest-stage station. See Station No. 13-2507.	3.88	1961-68	1-29-69 5- 6-69	0 0
Weiser River basin						
Deer Creek.....	Mann Creek.....	Operated as a crest-stage station. See Station No. 13-2671.	4.60	1961-68	1-22-69 1-27-69 3- 8-69 4-18-69	a1.9 a.3 2.35 1.19
Weiser River..... 2674.10 Hwy 95 @ Weiser	SNAKE River.....	Lat 44°14'35", long 116°57'26", in SW¼SW¼ sec. 33, T.11 N., R.5 W., Washington County, at U.S. 30 crossing at Weiser. south edge of N 195	-	-	8- 1-69	76.0
Brownlee Creek basin						
East Brownlee Creek.	SNAKE River.....	Operated as a crest-stage station. See Station No. 13-2896.	7.97	1961-68	5-21-69 6-19-69 7-29-69	27.1 6.62 2.58
Salmon River basin						
Beaver Creek....	Salmon River.....	Operated as a crest-stage station. See Station No. 13-2924.	15.0	1962-68	4-21-69 5-27-69 6-23-69	11.6 140 41.5
Peach Creek.....	do.....	Operated as a crest-stage station. See Station No. 13-2971.	7.62	1962-68	10- 8-68 4-22-69 5-27-69 6-26-69	a3.0 10.2 19.9 7.40
Holman Creek.....	do.....	Operated as a crest-stage station. See Station No. 13-2973.	6.10	1962-68	10- 8-69 4-22-69 5-27-69 6-26-69	a.8 1.88 2.90 1.52
Malm Gulch.....	do.....	Operated as a crest-stage station. See Station No. 13-2983.	9.38	1962-68	1-31-69 4-22-69 5-27-69 6-26-69	0 0 0 0

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1969

Discharge measurements made at miscellaneous sites during water year 1969						
Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Salmon River basin--Continued						
Morse Creek.....	Pahsimeroi River.	Operated as a crest-stage station. See Station No. 13-3017.	18.0	1962-68	4-23-69 6- 6-69 6-26-69	38.1 46.4 19.1
Do.....	do.....	Operated as a crest-stage station. See Station No. 13-3018.	19.9	1962-68	4-23-69 6- 6-69 6-26-69	0 0 0
Pahsimeroi River. 5020	Salmon River....	Lat 44°41'22", long 114°02'34", in NE¼NE¼SW¼ sec. 25, T.6 N., R.20 E., Lemhi County, 0.2 mile above mouth, and 10 miles northwest of May.	b845	1928, 1930-59*, 1968	4-23-69	248
Diversion from Twelvemile Creek (right bank).	from Twelvemile Creek.	Lat 45°00'30", long 113°55'30", in NW¼ sec.1, T. 19 N., R.21 E., Lemhi County, 0.1 mile upstream from U.S. Highway 93 crossing and 12 miles south of Salmon.	-	1964-68	10- 9-68	3.2
Twelvemile Creek.	Salmon River....	Operated as a crest-stage station. See Station No. 13-3022.	22.0	1962-68	10- 9-68 4-23-69 6- 6-69 6-26-69	a1.3 21.7 21.6 17.3
Hood Gulch.....	Canyon Creek....	Operated as a crest-stage station. See Station No. 13-3031.	7.09	1962-68	4-25-69 6- 3-69 6-25-69	1.12 2.53 2.10
Lemhi River..... 5053	Salmon River....	Lat 45°07'47", long 113°47'47", in SW¼SE¼ sec. 24, T.21 N., R.23 E., Lemhi County, at bridge on State Highway 28 and about 5 miles southeast of Salmon.	-	1911,1913, 1968	10- 9-68 6- 4-69 8-19-69	a180 554 22.8
Dahlonga Creek..	North Fork Salmon River.	Operated as a crest-stage station. See Station No. 13-3057.	b32	1962-68	4-24-69 6- 5-69 6-25-69	+75.7 28.2 18.0
Hughes Creek.....	do.....	Operated as a crest-stage station. See Station No. 13-3058.	15.7	1962-68	4-24-69 6- 6-69 6-25-69	53.3 55.2 21.0
Transmountain diversion.	from Johnson Creek.	Lat 44°32'30", long 115°34'00", in NE¼ sec.23, T.14 N., R.7 E., Valley County, about 0.5 mile downstream from point of diversion of transmountain Johnson Creek-Deadwood River diversion, 9 miles south of Landmark ranger station and 11 miles southeast of Knox.	-	1937-41, 1951-52, 1954-65, 1967	8-23-69	1.53
Mud Creek.....	Little Salmon River.	Operated as a crest-stage station. See Station No. 13-3155.	15.1	1937-39*, 1940-43, 1946-59*, 1961-68	4-16-69 5-20-69 6-18-69 7-30-69	117 52.8 6.13 2.02
Indian Creek.....	do.....	Operated as a crest-stage station. See Station No. 13-3163.	2.66	1962-68	3- 2-69 5-20-69 7-30-69	1.97 3.69 .76
Johns Creek.....	Salmon River....	Operated as a crest-stage station. See Station No. 13-3172.	6.67	1961-68	11-10-68 4- 5-69 6-12-69	4.86 8.06 1.01
Clearwater River basin						
Swiftwafer Creek	Selway River....	Operated as a crest-stage station. See Station No. 13-3366.	6.19	1961-68	10-13-68 6- 6-69	9.91 8.42
East Fork Papoose Creek	Papoose Creek....	Operated as a crest-stage station. See Station No. 13-3366.5.	4.51	1961-68	10-12-69 6- 9-69	6.52 8.58
Weir Creek.....	Lochsa River....	Operated as a crest-stage station. See Station No. 13-3368.5.	12.2	1961-68	10-12-69 6- 9-69	19.7 44.2
Red Horse Creek..	Red River.....	Operated as a crest-stage station. See Station No. 13-3372.	9.13	1961-68	6- 3-69	11.4
Peasley Creek....	South Fork Clearwater River.	Operated as a crest-stage station. See Station No. 13-3377.	14.2	1961-68	6- 3-69	20.1
Sally Ann Creek..	do.....	Operated as a crest-stage station. See Station No. 13-3382.	13.9	1961-68	10-20-68 1-11-69 3-30-69 6-12-69	7.51 27.5 24.6 2.13
Canal Gulch.....	Orofino Creek....	Operated as a crest-stage station. See Station No. 13-3397.	b5.9	1961-68	10-19-69 4-13-69 6- 2-69	6.44 52.2 7.85
Deer Creek.....	Whiskey Creek....	Operated as a crest-stage station. See Station No. 13-3399.	b6.8	1962-68	11- 9-68 5-29-69 7-25-69	2.43 .56 a.2
Cold Springs Creek.	Clearwater River.	Operated as a crest-stage station. See Station No. 13-3411.	8.07	1961-65, 1968	12-15-68 3-30-69 6-12-69 7-27-69	.98 23.9 .27 .03

Discharge measurements made at miscellaneous sites during water year 1969

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Clearwater River basin--Continued						
Potlatch River...	do.....	Lat 46°51'30", long 116°24'00', in SW¼NE¼ sec.36 T.41 N., R.1 W., at State Highway 8 and 0.2 mile west of Bovill.	-	1963-68	11- 3-68 12- 8-68 1-24-69 3- 2-69 3-31-69 5- 4-69 6- 7-69	8.48 31.2 47.6 35.7 497 154 24.6
Big Bear Creek...	Potlatch River...	Lat 46°30'10", long 116°39'40", in NW¼SE¼ sec.13, T.38 N., R.3 W., Latah County, at county road crossing, 0.3 mile upstream from Little Bear Creek, and 1 mile northwest of Kendrick.	-	1963-68	11- 3-68 12- 8-68 1- 8-69 1-28-69 3- 2-69 3-31-69 5- 4-69 6-11-69	1.36 41.8 535 47.8 53.6 776 71.9 2.64
Potlatch River...	Clearwater River.	Operated as a crest-stage station. See Station No. 13-3415.	425	1946-60*, 1961-68	3-29-69 6-11-69	3,830 56.6
Palouse River basin						
Deep Creek tributary.	Deep Creek.....	Operated as a crest-stage station. See Station No. 13-3447.	2.90	1961-68	3-29-69 4-27-69	19.0 4.28
Deep Creek.....	Palouse River....	Operated as a crest-stage station. See Station No. 13-3448.	36.6	1961-68	3-29-69 4-27-69	260 37.8

† Peak flow.

* Operated as a continuous-record gaging station.

a Estimated.

b Approximately.

c Flow derived largely from springs.

d Discharge represents actual spring flow adjusted for diversions.

e Discharge obtained by measuring Snake River above and below spring outlets and adjusting for surface flow.

f Discharge obtained by measuring Big Wood River and diversions above and below springs and adjusting.

Portneuf River basin inflow investigation--Portneuf Dam to gaging station at Pocatello

Four series of discharge measurements were made during the 1969 water year, on Oct. 23, 31 and Dec. 2-4, 1968, and Mar. 17-19 and June 9-11, 1969, on the Portneuf River and Marsh Creek, a principal tributary, to determine the yield in various parts of the basin. The reach is 68.2 miles in length and extends from the Portneuf Dam to the gaging station Portneuf River at Pocatello (13-0755). On the basis of records at four gaging stations in the reaches, stages were steady in the October period through all of the reaches except near the lower end, where the stages rose; stages were practically steady in the December period; stages were rising throughout the system in the March period; and stages dropped slightly in the upper reaches but rose significantly downstream in the June period. Except for the December period, indicated gains are substantially affected by changes in inflow and channel storage. Indicated gains in June are also affected by changes in diversions for irrigation. In the reaches where tributaries were measured, gains or losses were computed by adding the tributary to the upstream site. Discharge at the gaging stations has been listed twice to accommodate the different dates of upstream and downstream measurements.

Stream	Location	Oct.		Dec.		Mar.		June	
		Date	Discharge (cfs)	Date	Discharge (cfs)	Date	Discharge (cfs)	Date	Discharge (cfs)
Portneuf Canal	Near center sec.30, T.6 S., R.39 E., 0.5 mile below Portneuf Dam	23	1.99	4	0.50	17	0.69	10	89.2
Portneuf River	Near west edge sec.30, T.6 S., R.39 E., 0.5 mile below Portneuf Dam	23	2.10	4	2.84	17	4.06	10	9.35
Total	0.5 mile below Portneuf Dam		4.09		3.34		4.75		98.6
Portneuf River tributary	NE¼ sec.36, T.6 S., R.38 E., at culvert crossing of north-south road 1.2 miles south of Portneuf Dam	23	al.0	4	1.01	17	2.12	10	4.49
Do.....	SE¼ sec.36, T.6 S., R.38 E., at culvert crossing of north-south road 1.8 miles south of Portneuf Dam	23	a.8	4	.87	17	1.35	10	3.72
Portneuf Canal	SW cor. sec.8, T.7 S., R.39 E., at east-west road 4.2 miles west of Hatch	23	2.97	4	3.45	17	6.93	11	104
Portneuf River	0.2 mile east of SW cor. sec.8, T.7 S., R.39 E., at east-west road 4 miles west of Hatch	23	4.97	4	5.01	17	1.94	11	9.45
Total	at east-west road 4 miles west of Hatch		7.94		8.46		8.87		113
Indicated unmeasured gain in reach			2.05		3.24		0.65		6.2
Portneuf Canal	NW¼ sec.24, T.7 S., R.38 E., at north-south road 5 miles south of Portneuf Dam	23	3.65	4	4.31	17	12.5	11	109
Portneuf River	Near SW cor. sec.19, T.7 S., R.39 E., at north-south road 5.5 miles south of Portneuf Dam	23	4.62	4	5.57	17	1.43	11	7.24
Total	at north-south road crossing 5.5 miles south of Portneuf Dam		8.27		9.88		13.9		116
Indicated gain in reach			0.33		1.42		5.0		3
Portneuf River	Gaging station near Pebble (13-0720)	23	31	4	37	17	31	11	118
Indicated gain in reach			23		27		17		2
Portneuf River	Gaging station near Pebble (13-0720)	31	32	2	37	19	37	11	118
Portneuf River	SW¼ sec.3, T.8 S., R.38 E., at Jim Mabey Ranch, 0.5 mile north of Pebble	31	82.3	2	86.3	19	97.5	11	181
Indicated gain in reach			50		49		60		63
Portneuf River	SW¼ sec.22, T.9 S., R.38 E., near upstream city limits of Lava Hot Springs	24	92.0	4	107	19	120		-
Indicated gain in reach			-		21		22		-
Portneuf River	Gaging station at Topaz (13-0730)	24	132	4	142	19	166		-
Indicated gain in reach			40		35		46		-

PORTNEUF RIVER BASIN

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Portneuf River basin inflow investigation--Portneuf Dam to gaging station at Pocatello--Continued

Stream	Location	Oct.		Dec.		Mar.		June	
		Date	Discharge (cfs)	Date	Discharge (cfs)	Date	Discharge (cfs)	Date	Discharge (cfs)
Portneuf River	Gaging station at Topaz (13-0730)	-		2	142	18	173	10	277
Portneuf River	Near center sec.27, T.7 S., R.36 E., at Interstate 15, about 0.5 mile up- stream from Marsh Creek, 1.5 miles southeast of Inkom	-		2	144	18	174	10	57.9
Indicated gain or loss in reach		-			2		1		-219
North Fork Marsh Creek	SE¼ sec.8, T.12 S., R.38 E., 5.5 miles southeast of Downey	-		3	2.18	17	4.90	9	10.5
Marsh Creek	Near center sec.5, T.12 S., R.37 E., at Highway 191, 2.0 miles southwest of Downey	-		3	10.2	17	15.0	9	10.8
Indicated gain in reach		-			8.0		10.1		.3
Marsh Creek	Near SE cor. sec.2, T.11 S., R.36 E., 2.2 miles west of Virginia	-		3	21.3	17	33.6	9	15.7
Indicated gain in reach		-			11.1		18.6		4.9
Marsh Creek	Near center of sec.19, T. 10 S., R.37 E., below Arkansas Creek, 1.5 miles south of Arimo	-		3	40.4	17	56.4	9	19.7
Indicated gain in reach		-			19.1		22.8		4.0
Marsh Creek	Gaging station near McCammon (13-0750)	-		3	82	17	87	9	57
Indicated gain in reach		-			42		31		37
Marsh Creek	Gaging station near McCammon (13-0750)	-		2	82	18	115	10	63
Marsh Creek	Near center sec.34, T.7 S., R.36 E., about 1 mile from mouth, 2.0 miles southeast of Inkom.	-		2	89.7	18	116	10	82.2
Indicated gain in reach		-			8		1		19
Rapid Creek	Near center sec.21, T.7 S., R.36 E., at Highway 30N in Inkom	-		2	11.8	18	17.8	10	25.2
Portneuf River	Near center sec.21, T.7 S., R.35 E., at Portneuf	-		2	247	18	309	10	160
Indicated unmeasured gain or loss in reach		-			2		1		-5
Portneuf River	Gaging station at Poca- tello (13-0755)	-		2	256	18	314	10	176
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