UNITED STATES DEPARTMENT OF THE INTERIOR
HAROLD L. ICKES, Secretary
GEOLOGICAL SURVEY
W. C. MENDENHALL, Director

Water-Supply Paper 903

SURFACE WATER SUPPLY *of the* UNITED STATES 1940

PART 13
SNAKE RIVER BASIN

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

In cooperation with the States of
IDAHO, OREGON, WASHINGTON, AND WYOMING
and other agencies

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1941

For sale by the Superintendent of Documents, Washington, D. C. - - - Price 35 cents (paper cover)

Some of the pages of this report carry at the bottom a form number and other matter that should have been masked out before the pages were photographed for printing by the offset method. Although this mars the appearance, it does not impair the integrity of the tables. As withholding for change would involve considerable delay and added expense to the Government, the Geological Survey is releasing the report with regret for its appearance.

CONTENTS

	Page
Scope of work	1
Definition of terms	1
Explanation of data	1
Accuracy of field data and computed results	3
Publications	4
Records of discharge collected by agencies other than the Geological Survey	9
Cooperation	10
Division of work	10
Gaging-station records	12
Snake River main stem	12
Jackson Lake at Moran, Wyo	12
Snake River at Moran, Wyo	13
Snake River at Calamity Point, near Irwin, Idaho	14
Snake River near Heise, Idaho	15
Diversions from Snake River between Heise and Shelley gaging stations, Idaho	16
Snake River near Shelley, Idaho	17
Diversions from Snake River between Shelley and Clough Ranch gaging stations, Idaho	18
Snake River at Clough Ranch, near Blackfoot, Idaho	19
American Falls Reservoir at American Falls, Idaho	20
Snake River at Neeley, Idaho	22
Lake Walcott near Minidoka, Idaho	23
Snake River near Minidoka, Idaho	24
Snake River at Milner, Idaho	25
Snake River near Kimberly, Idaho	26
Snake River near Twin Falls, Idaho	27
Snake River near Hagerman, Idaho	28
Snake River below Lower Salmon Falls, near Hagerman, Idaho	29
Snake River at King Hill, Idaho	30
Snake River near Murphy, Idaho	31
Snake River at Weiser, Idaho	32
Snake River at Oxbow, Oreg	33
Snake River near Clarkston, Wash	34
Flat Creek Basin	35
Flat Creek near Jackson, Wyo	35
Salt River Basin	36
Salt River near Smoot, Wyo	36
Salt River at Wyoming-Idaho State line	37
Cottonwood Creek near Smoot, Wyo	38
Strawberry Creek near Bedford, Wyo	39
Henrys Fork Basin	40
Henrys Lake near Lake, Idaho	40
Henrys Fork near Lake, Idaho	41
Henrys Fork at Coffee Pot Rapids, near Island Park, Idaho	42
Island Park Reservoir near Island Park, Idaho	44
Henrys Fork near Island Park, Idaho	45
Henrys Fork at De Winers Ranch, near Island Park, Idaho	46
Henrys Fork at Warm River, Idaho	48
Henrys Fork near Ashton, Idaho	49
Diversions from Henrys Fork between Ashton and St. Anthony gaging stations, Idaho	50
Henrys Fork at St. Anthony, Idaho	51
Diversions from Henrys Fork between St. Anthony and Rexburg gaging stations, Idaho	52
Henrys Fork near Rexburg, Idaho	53
Buffalo River near Island Park, Idaho	54
Diversions from Fall River above gaging station near Squirrel, Idaho	56
Fall River near Squirrel, Idaho	57
Diversions from Fall River between Squirrel and Chester gaging stations, Idaho	58
Fall River near Chester, Idaho	59
Grassy Lake near Moran, Wyo	60
Teton River near Driggs, Idaho	61
Teton River near Tetonia, Idaho	62
Teton River near St. Anthony, Idaho	63
Diversions from Teton River between St. Anthony gaging station and mouth, Idaho	64
Blackfoot River Basin	65
Blackfoot River near Blackfoot, Idaho	65
Mud Lake-Lost River Basin	66
Mud Lake Basin	66
Mud Lake near Terreton, Idaho	66
Camas Creek at Eighteenmile Shearing Corral, near Kilgore, Idaho	67
Camas Creek at Camas, Idaho	68
Beaver Creek near Spencer, Idaho	69
Beaver Creek at Dubois, Idaho	70
Beaver Creek at Camas, Idaho	71
Medicine Lodge Creek near Argora, Idaho	72
Little Lost River Basin	73
Little Lost River near Howe, Idaho	73
Blaine County Investment Co.'s canal near Howe, Idaho	74

Gaging-station records--Continued.
Mud Lake-Lost River Basin--Continued. Page
Big Lost River Basin.... 75
Big Lost River at Howell Ranch, near Chilly, Idaho.... 75
Big Lost River (east channel) above Mackay Reservoir, near Mackay, Idaho.... 76
Big Lost River (west channel) above Mackay Reservoir, near Mackay, Idaho.... 77
Mackay Reservoir near Mackay, Idaho.... 79
Big Lost River below Mackay Reservoir, near Mackay, Idaho.... 80
Warm Spring Creek (east channel) near Mackay, Idaho.... 81
Warm Spring Creek (west channel) near Mackay, Idaho.... 82
Sharp ditch near Mackay, Idaho.... 83
Portneuf River Basin.... 84
Portneuf River at Topaz, Idaho.... 84
Portneuf River at Pocatello, Idaho.... 85
Birch Creek near Downey, Idaho.... 86
Tributaries between Portneuf River and Salmon Falls Creek.... 87
North Side Minidoka canal near Minidoka, Idaho.... 87
South Side Minidoka canal near Minidoka, Idaho.... 88
Goose Creek above Trapper Creek, near Oakley, Idaho.... 89
Oakley Reservoir near Oakley, Idaho.... 90
Trapper Creek near Oakley, Idaho.... 91
P. A. lateral near Milner, Idaho.... 92
Milner low-lift canal near Milner, Idaho.... 93
Gooding canal at Milner, Idaho.... 94
North Side Twin Falls canal at Milner, Idaho.... 95
South Side Twin Falls canal at Milner, Idaho.... 96
Rock Creek near Twin Falls, Idaho.... 97
Salmon Falls Creek Basin.... 98
Salmon Falls Creek near San Jacinto, Nev.... 98
Salmon River Canal Co. Reservoir near Rogerson, Idaho.... 99
Salmon River Canal Co. canal near Rogerson, Idaho.... 100
Big Wood River Basin.... 101
Big Wood River at Hailey, Idaho.... 101
Big Wood River near Bellevue, Idaho.... 103
Magic Reservoir near Richfield, Idaho.... 104
Big Wood River below Magic Dam, near Richfield, Idaho.... 105
Big Wood River at Gooding, Idaho.... 106
Big Wood River near Gooding, Idaho.... 107
Big Wood Slough at Hailey, Idaho.... 108
Camas Creek near Blaine, Idaho.... 109
Lincoln canal near Richfield, Idaho.... 110
Lincoln canal near Shoshone, Idaho.... 111
Thorn Creek spillway near Gooding, Idaho.... 112
Little Wood River near Richfield, Idaho.... 113
Little Wood River at Shoshone, Idaho.... 114
Silver Creek near Picabo, Idaho.... 115
King Hill canal near Hagerman, Idaho.... 116
Tributaries between Big Wood River and Owyhee River.... 117
Clover Creek near Bliss, Idaho.... 117
King Hill Creek near King Hill, Idaho.... 118
Little Canyon Creek near Glenns Ferry, Idaho.... 119
Bennett Creek near Bennett, Idaho.... 120
Mountain Home feeder canal near Mountain Home, Idaho.... 121
Mountain Home cooperative canal near Mountain Home, Idaho.... 122
Wickahoney Creek near Bruneau, Idaho.... 123
Jacks Creek near Bruneau, Idaho.... 124
Owyhee River Basin.... 125
Wild Horse Reservoir near Gold Creek, Nev.... 125
Owyhee River near Gold Creek, Nev.... 126
Owyhee River at Mountain City, Nev.... 127
Owyhee River above China diversion dam, near Owyhee, Nev.... 128
Owyhee River above Owyhee Reservoir, Oreg.... 129
Owyhee Reservoir at Owyhee Dam, near Nyssa, Oreg.... 130
Owyhee River below Owyhee Dam, Oreg.... 131
Boise River Basin.... 132
Boise River near Twin Springs, Idaho.... 132
Arrowrock Reservoir at Arrowrock, Idaho.... 133
Boise River at Dowling Ranch, near Arrowrock, Idaho.... 134
Boise River at Boise, Idaho.... 135
Boise River at Strawberry Glen Bridge, near Boise, Idaho.... 136
Boise River at Notus, Idaho.... 137
Diversions from Boise River, Idaho.... 138
Cottonwood Creek at Arrowrock Reservoir, Idaho.... 139
South Fork of Boise River near Lenox, Idaho.... 140
Grouse Creek near Arrowrock, Idaho.... 141
Little Camas canal at heading, near Bennett, Idaho.... 142
Moore Creek above Granite Creek, near Idaho City, Idaho.... 143
Moore Creek above Thorn Creek, near Idaho City, Idaho.... 144
Moore Creek near Arrowrock, Idaho.... 145
Gold Hill Placer diversion from Moore Creek near Idaho City, Idaho.... 146
Granite Creek near Idaho City, Idaho.... 147
Bannock Creek near Idaho City, Idaho.... 148
Pine Creek above Barry Placer diversion,near Idaho City, Idaho.... 149
Pine Creek near Idaho City, Idaho.... 150
Elk Creek above Gold Hill Placer diversion, near Idaho City, Idaho.... 151
Elk Creek near Idaho City, Idaho.... 152
New York canal near Barber, Idaho.... 153
Cottonwood Gulch at Boise, Idaho.... 154
Deer Flat Reservoir near Caldwell, Idaho.... 155

Gaging-station records--Continued. Page
Malheur River Basin.... 156
Malheur River near Drewsey, Oreg.... 156
Malheur River below Warmsprings Reservoir, near Riverside, Oreg.... 157
Malheur River near Hope, Oreg.... 158
Reservoirs in Malheur River Basin, Oreg.... 159
North Fork of Malheur River above Agency Valley Reservoir, near Beulah, Oreg.... 160
North Fork of Malheur River at Beulah, Oreg.... 161
Payette River Basin.... 162
South Fork of Payette River near Garden Valley, Idaho.... 162
South Fork of Payette River near Banks, Idaho.... 163
Payette River near Horseshoe Bend, Idaho.... 164
Payette River near Emmett, Idaho.... 165
Payette River near Payette, Idaho.... 166
Deadwood Reservoir near Lowman, Idaho.... 167
Deadwood River below Deadwood Reservoir, near Lowman, Idaho.... 168
Deadwood River near Lowman, Idaho.... 169
Payette Lake at Lardo, Idaho.... 170
North Fork of Payette River at Lardo, Idaho.... 171
Lake Fork of Payette River above reservoir, near McCall, Idaho.... 172
Lake Fork Reservoir near McCall, Idaho.... 173
Lake Irrigation District canal near McCall, Idaho.... 174
Porter Creek near Gardena, Idaho.... 175
Weiser River Basin.... 177
Weiser River at Tamarack, Idaho.... 177
Weiser River at Starkey, Idaho.... 178
Weiser River near Council, Idaho.... 179
Weiser River near Cambridge, Idaho.... 180
Weiser River above Crane Creek, near Weiser, Idaho.... 181
East Fork of Weiser River near Council, Idaho.... 182
West Fork of Weiser River near Fruitvale, Idaho.... 183
Lost Valley Reservoir near Tamarack, Idaho.... 184
Lost Creek near Tamarack, Idaho.... 185
Hornet Creek near Council, Idaho.... 186
Middle Fork of Weiser River near Mesa, Idaho.... 187
Mesa Orchards canal near Mesa, Idaho.... 188
Rush Creek at Cambridge, Idaho.... 189
Pine Creek near Cambridge, Idaho.... 190
Little Weiser River near Indian Valley, Idaho.... 191
Crane Creek Reservoir near Midvale, Idaho.... 192
Crane Creek near Midvale, Idaho.... 193
Crane Creek at mouth, near Weiser, Idaho.... 194
Weiser Irrigation District canal near Weiser, Idaho.... 195
Mann Creek near Weiser, Idaho.... 196
Burnt River Basin.... 197
Unity Reservoir on Burnt River, near Unity, Oreg.... 197
Burnt River near Hereford, Oreg.... 198
Powder River Basin.... 200
Powder River at Salisbury, Oreg.... 200
Powder River near Robinette, Oreg.... 201
Imnaha River Basin.... 202
Imnaha River at Imnaha, Oreg.... 202
Salmon River Basin.... 203
Salmon River below Valley Creek, at Stanley, Idaho.... 203
Salmon River below Yankee Fork, near Clayton, Idaho.... 204
Salmon River near Challis, Idaho.... 205
Salmon River at Salmon, Idaho.... 206
Salmon River at Whitebird, Idaho.... 207
Valley Creek at Stanley, Idaho.... 208
Yankee Fork of Salmon River near Clayton, Idaho.... 209
Pahsimeroi River near May, Idaho.... 210
Lemhi River at Salmon, Idaho.... 211
Middle Fork of Salmon River near Cape Horn, Idaho.... 212
Bear Valley Creek near Cape Horn, Idaho.... 213
South Fork of Salmon River near Knox, Idaho.... 214
South Fork of Salmon River near Warren, Idaho.... 215
East Fork of South Fork of Salmon River at Stibnite, Idaho.... 216
East Fork of South Fork of Salmon River near Stibnite, Idaho.... 217
East Fork of South Fork of Salmon River near Yellow Pine, Idaho.... 218
Johnson Creek at Yellow Pine, Idaho.... 219
Mud Creek near Tamarack, Idaho.... 220
Boulder Creek near Tamarack, Idaho.... 221
Grande Ronde River Basin.... 222
Grande Ronde River at La Grande, Oreg.... 222
Grande Ronde River at Rondowa, Oreg.... 223
Catherine Creek near Union, Oreg.... 224
East Fork of Wallowa River near Joseph, Oreg.... 225
Wallowa Falls power-plant tailrace near Joseph, Oreg.... 226
Hurricane Creek near Joseph, Oreg.... 227
Lostine River near Lostine, Oreg.... 228
Bear Creek near Wallowa, Oreg.... 229
Asotin Creek Basin.... 230
Asotin Creek near Asotin, Wash.... 230
Clearwater River Basin.... 231
Selway River near Lowell, Idaho.... 231
Clearwater River at Kamiah, Idaho.... 232
Clearwater River at Spalding, Idaho.... 233
Lochsa River near Lowell, Idaho.... 234
South Fork of Clearwater River near Grangeville, Idaho.... 235
North Fork of Clearwater River near Ahsahka, Idaho.... 236

Gaging-station records--Continued. Page
Palouse River Basin..... 237
South Fork of Palouse River above Paradise Creek, near Pullman, Wash..... 237
South Fork of Palouse River at Pullman, Wash..... 238
Missouri Flat Creek at Pullman, Wash..... 239
Fourmile Creek at Shawnee, Wash..... 240
Miscellaneous discharge measurements..... 241
Index..... 243

ILLUSTRATIONS

Page
Plate 1. Gaging-station structures: A, Snake River at King Hill, Idaho; B, Snake River near Murphy, Idaho; C, Snake River near Clarkston, Wash..... 2

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes, and reservoirs in the United States during the water year ending September 30, 1940. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 8,800 gaging stations in the United States and also at many gaging stations in Alaska and Hawaii. In July 1940, 4,760 gaging stations were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made at many other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Cooperation of the first kind is acknowledged in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 10.

DEFINITION OF TERMS

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

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

"Run-off in inches" is the depth to which an area would be covered if all the water draining from it in a given period were uniformly distributed on its surface. It is used for comparing run-off with rainfall, which is usually expressed in inches.

An "acre-foot" is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet. The term is commonly used in connection with storage for irrigation.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons and represents a run-off of 0.0372 inch from one square mile.

"Stage-discharge relation" is an abbreviation for the term "relation of gage height to discharge."

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

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge

measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical structures in use at gaging stations are shown on plate 1.

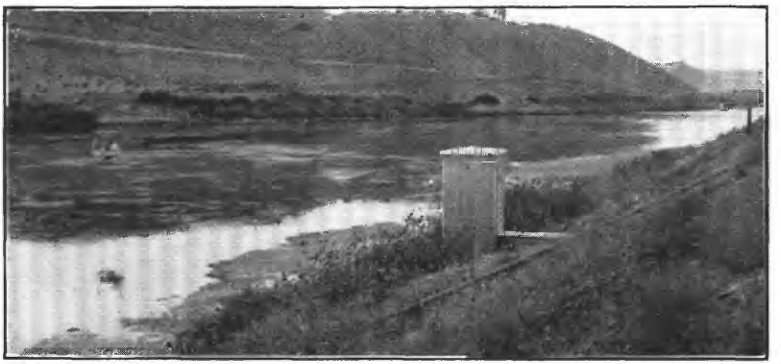
Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the mean daily gage height to these rating tables gives the mean daily discharge, from which the monthly and yearly mean discharge are computed.

For most of the gaging stations in the area covered by this report the data presented comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off. Skeleton rating tables are published except for those stations whose daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum discharge represents the lowest stage, unless otherwise qualified. The peak discharge for the year with the time of its occurrence is given below the table of monthly discharge for some stations. Selected lower peaks are also given if the peak discharge exceeded the mean discharge for that day by more than 10 percent. This supplementary information is generally not given for stations having drainage areas of less than 10 square miles or more than 10,000 square miles.

The table of daily discharge gives, for stations equipped with nonrecording gages, the discharge in second-feet corresponding to once-daily readings of the gage or the mean of twice-daily readings. For flashy floods the mean daily discharge is determined from gage-height graphs based on gage readings made once or twice daily or oftener, as stated in the station description. For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the table gives the discharge corresponding to the mean daily gage height. For stations subject to such fluctuation the mean daily gage height may not indicate the true mean daily discharge, which must be obtained by averaging the discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining the mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the slope or fall in a reach of the stream as a factor in the determination of discharge. Information requisite for determining the slope or fall is obtained by means of an auxiliary



A. SNAKE RIVER AT KING HILL, IDAHO.

B. SNAKE RIVER NEAR MURPHY, IDAHO.

C. SNAKE RIVER NEAR CLARKSTON, WASH.

GAGING-STATION STRUCTURES.

gage set at some distance from the base gage. The auxiliary gage, if one is used, is described under "Location." At some stations the stage-discharge relation is affected by changing stage, and for them the rate of change of stage is used as a factor in the determination of discharge.

At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, which makes it impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of occasional winter discharge measurements and gage heights, consideration being given to the available information on temperature and precipitation, notes by gage observers and engineers, and comparable records of discharge for stations in the same or nearby basins. The days included in the periods of ice effect and the days during the winter period on which discharge measurements were made are indicated in the table by symbols referring to footnotes.

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

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily on (1) the permanency of the stage-discharge relation and (2) the accuracy of observation of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are accurate within 5 percent; "good," within 10 percent; "fair," within 15 percent; and "poor," within 20 or a higher percent.

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

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

The table of monthly discharge gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected

to throw new light on data previously published, and that greater degrees of refinement in computations and records may be warranted with the increase in data and the use of improved equipment.

PUBLICATIONS

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

Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).
3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River Basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.
9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

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

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.

2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

3. Sets are available for consultation in the local offices of the water-resources branch of the Geological Survey as follows:

East of the Mississippi River:
Albany. N. Y., 526 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 5 North Rhodes Center.
Augusta, Maine, Statehouse.
Boston, Mass., 945 Post Office Building.
Charlottesville, Va., House G, Dawson Row, University of Virginia.
Chattanooga, Tenn., 442 Post Office Building.
College Park, Md., Engineering Building, University of Maryland.
Columbia, S. C., 119 United States Courthouse.
Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
Harrisburg, Pa., 490 Education Building.
Hartford, Conn., 225 Capitol Building, 410 Asylum Street.
Indianapolis, Ind., 316 Federal Building.
Louisville, Ky., 652 Federal Building.
Madison, Wis., 666 State Office Building.
Montgomery, Ala., 507 Post Office Building.
Ocala, Fla., 302 Post Office Building.
St. Paul, Minn., 808 New Post Office Building.
South Charleston, W. Va., Armor Park School Building.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex, Elm Street.

West of the Mississippi River:
Austin, Tex., 300 State Highway Building.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 230 Customhouse.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 408 Federal Building.
Honolulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
Los Angeles, Calif., G-31 United States Post Office and Courthouse.
Portland, Oreg., 606 Post Office Building.

Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
St. Louis, Mo., 926 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 465 Federal Office Building.
Santa Fe, N. Mex., 204 United States Courthouse.
Tacoma, Wash., 1100 Washington Building.
Topeka, Kans., 305 Federal Building.
Tucson, Ariz., 210 Post Office Building.

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

Records of flow of streams in the United States have been published in the reports tabulated as follows:

Stream-flow data in reports of the Geological Survey

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

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information...	1884 to Sept. 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93)..	1888 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years).	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River and Missouri River and tributaries above Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights of streams west of the Mississippi River except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River and Missouri River and tributaries.	
W 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years).	1898
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.	1900.
22d A, pt. 4	Monthly discharge.....	1900.
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.	1901.
W 75.....	Monthly discharge.....	1901.

Note.- Reports containing records for years after 1901 are given in table on page 6.

The table on the following page gives, by years and drainage basins, the numbers of the papers on surface water supply published from 1899 to 1940. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, 503, which contain records for the Ohio River Basin for those years.

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

Numbers of water-supply papers containing results of stream measurements, 1899-1940

(For basins included see p. 4)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b35, 36	36	36	36	c36, 37	37	37	d37, 38	38, e39	38, f39	38	38	38
1900 g...	47, h48	48	48, 149	49	49	49, j50	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	k65, 66, 75	66, 75	k65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b82, 83	83	m82, 83	k83, 85	84	k83, 84	84	85	85	85	85	85	85
1903.....	97	b97, 98	98	97	k98, 99, n100	99	k98, 99	99	100	100	100	100	100	100
1904.....	o124, p125, q126	q126, 127	128	129	k128, 130	130, r131	k128, 131	132	133	133, s134	134	135	135	135
1905.....	o165, p166, q167	q167, 168	169	170	171	172	k169, 173	174	175, t177	176, s177	177	178	178	u177, 178
1906.....	o201, p202, q203	q203, 204	205	206	207	208	k205, 209	210	211, t213	212, s213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20..	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939.....	871	872	873	874	875	876	877	878	879	880	881	882	883	884
1940.....	891	892	893	894	895	896	897	898	899	900	901	902	903	904

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.
b James River only.
c Gallatin River.
d Green and Gunnison Rivers and Colorado River above Gunnison River.
e Mojave River only.
f Kings and Kern Rivers and south Pacific slope basins.
g Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Wissahickon and Schuylkill Rivers to James River.
i Scioto River.
j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.
k Tributaries of Mississippi River from east.
m Lake Ontario and tributaries to St. Lawrence River proper.
n Hudson Bay only.
o New England rivers only.
p Hudson River to Delaware River, inclusive.
q Susquehanna River to Yadkin River, inclusive.
r Platte and Kansas Rivers.
s The Great Basin in California, except Truckee and Carson River Basins.
t Below mouth of Gila River.
u Rogue, Umpqua, and Siletz Rivers only.

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

Reports containing compilation of discharge by States and drainage basins

Water-Supply Paper	Year ending	State or drainage basin and title
		STATE
107	1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific coast river basins.
447	1918	California, southern, Surface water supply of Pacific slope of.
597-E	1927	California, Surface water supply of Sacramento River Basin.
636-D	1927	California, Surface water supply of San Joaquin River Basin.
636-E	1927	California, southern, Surface water supply of Pacific slope basins in.
637-A	1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1900	Colorado, Water resources of.
197	1905	Georgia, Water resources of.
415	1915	Massachusetts, Surface waters of.
230	1906	Nebraska, Surface water supply of.
370	1910	Oregon, Surface water supply of.
850	1937	Texas, Summary of records of surface waters of.
424	1916	Vermont, Surface waters of.
492	1919	Washington, Summary of hydrometric data in.
870	1935	Washington, Summary of records of surface waters of.
469	1921	Wyoming, Surface waters of, and their utilization.
		DRAINAGE BASIN
395	1914	Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization.
617	1927	Colorado River, upper (Colo., Utah), and its utilization.
517	1920	Great Salt Lake Basin, Water powers of.
618	1926	Green River (Utah, Wyo.) and its utilization.
198	1906	Kennebec River Basin (Maine), Water resources of.
491	1917	Milk River. (See St. Mary and Milk Rivers.)
536	1920	New-Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of.
279	1909	Penobscot River Basin (Maine), Water resources of.
192	1906	Potomac River Basin (D. C., Md., W. Va.)
358	1913	Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of, 1888-1913.
491	1917	St. Mary and Milk Rivers (Mont., Canada), Water supply of.
109	1904	Susquehanna River Basin (Pa., Md.), Hydrography of.

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

State reports containing compilation of records of discharge

State	Year ending	Report	Issued by
Alabama.....	1915	Bull. 17, Water powers of Alabama....	Geological Survey of Alabama.
Arkansas....	1928	Stream-gaging report 1.....	Arkansas Geological Survey.
Connecticut:	1926	Bull. 44, Water resources of Connecticut.	State Geological and Natural History Survey.
Do.....	1933[a]	5th biennial report.....	Connecticut State Water Commission.
Georgia.....	1907	Bull. 16, Water powers of Georgia....	Geological Survey of Georgia.
Do.....	1920[b]	Bull. 38, Water powers of Georgia....	Do.

a Includes records of monthly discharge in second-feet per square mile for years 1912-33.
b Includes records for years 1907-18.

State reports containing compilation of records of discharge--Continued

State	Year ending	Report	Issued by
Illinois....	1911	Water resources of Illinois.....	Rivers and Lakes Commission.
Do.....	1934	Stream-flow data of Illinois.....	Division of Waterways.
Indiana.....	1927	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	1930[c]	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.... ...	1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Kansas.....	1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1924[d]	....do.....	Do.
Do.....	1928[e]	....do.....	Kansas State Board of Agriculture.
Do.....	1935[f]	Stream-flow data of Kansas.....	Do.
Do.....	1939[g]	....do.....	Do.
Kentucky....	1920	Surface waters of Kentucky.....	Kentucky Geological Survey.
Minnesota...	1912	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri....	1926	Vol. 20, 2d series, Water Resources of Missouri.	Missouri Geological Survey and Water Resources.
Do.....	1939[h]	Vol. 26, 2d series, Surface waters of Missouri.	Do.
Nebraska....	1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1928[i]	2d hydrographic report.....	Do.
New Jersey..	1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1934[j]	Special Report 5, Surface Water Supply of New Jersey.	State Water Policy Commission.
New Mexico..	1925	Surface water supply of New Mexico...	Office of the State Engineer.
North Carolina.	1923	Bull. 34, Discharge records of North Carolina Streams.	Department of Conservation and Development.
Do.....	1936[k]	Bull. 39, Discharge records of North Carolina streams.	Do.
Ohio.....	1921[l]	Bull. 73, Ohio stream flow.....	Engineering Experiment Station, Ohio State University.
Do.....	1939[m]	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Oregon.....	1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1924[n]	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1930[o]	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1936[p]	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	1932[q]	Stream-flow records of Pennsylvania..	Department of Forests and Waters.
Tennessee...	1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	1930[r]	Bull. 40, Surface waters of Tennessee.	Do.
Utah.....	1905	5th biennial report, State Engineer..	Office of the State Engineer.
Virginia....	1927	Bull. 31, Water resources of Virginia.	Conservation and Development Commission.
Washington..	1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin...	1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1923[s]	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

c Includes records for years 1927-30.
d Includes records for years 1919-24.
e Includes records for years 1924-28.
f Includes records for years 1928-35.
g Includes records for years 1935-39.
h Includes records for years 1927-39.
i Includes records for years 1914-28.
j Includes records for years 1928-34.
k Includes records for years 1889-1936; records of daily and monthly discharge are not included.
l Includes all available records prior to 1921.
m Includes records for years 1902-39.
n Includes records for years 1914-24.
o Includes records for years 1924-30.
p Includes records for years 1930-36.
q Includes records for years 1928-32.
r Includes average weekly discharge for years 1920-30.
s Includes records for years 1914-23.

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

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier noteworthy floods. The following list gives the numbers and titles of these reports.

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

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of daily discharge were collected during the water year October 1939 to September 1940 by agencies other than the Geological Survey. The records for these stations are not contained in the publications of the Geological Survey except as noted.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
American Falls Reservoir, inflow to.	Near American Falls, Idaho.....	1927-28, 1932-40.	Idaho Water District 36.
Antelope Reservoir...	Sec. 32, T. 30 S., R. 45 E., near Danner, Oreg.	1925-27, 1930, 1932-40.	Oregon State engineer.
Bully Creek.....	SW¼ sec. 33, T. 18 S., R. 44 E., 5 miles southwest of Vale, Oreg. Prior to spring of 1937 in sec. 20, 6 miles west of Vale.	1933-40.....	Do.
Burnt River, South Fork of.	SW¼ sec. 27, T. 13 S., R. 36 E., near Unity, Oreg.	1938-40*.....	Do.
Grande Ronde River...	NW¼ sec. 12, T. 3 S., R. 36 E., at lower reservoir site near La Grande, Oreg.	1937-40.....	Do.
Indian Creek.....	SE¼ sec. 33, T. 1 S., R. 40 E., above North Indian Creek, near Imbler, Oreg.	1938-40.....	Do.
Island Park Reservoir, inflow to.	Near Island Park, Idaho.....	1935-40.....	Idaho Water District 36.
Jack Creek.....	SE¼ sec. 25, T. 30 S., R. 44 E., 3 miles southeast of Danner, Oreg.	1925, 1930, 1932-40.	Oregon State engineer.
Jordan Creek.....	9 miles west of Jordan Valley, Oreg...	1930, 1932-40*..	Do.
Little Minam River...	SE¼ sec. 27, T. 3 S., R. 41 E., 10 miles east of Cove, Oreg.	1938-40.....	Do.
Malheur River.....	Below Nevada Dam, near Vale, Oreg.....	1934, 1936-40*..	Do.
Do.....	SW¼ sec. 32, T. 20 S., R. 41 E., near Namorf, Oreg.	1931-40*.....	Do.
Do.....	Juntura, Oreg.....	1938-40.....	Do.
Malheur River, North Fork of.	....do.....	1926-32, 1935-40*.	Do.

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

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

Stream	Location	Period	Collected by
Snake River tributaries.	Near Irwin, Idaho.....	1940.....	Idaho Water District 36.
Teton Basin, inflow to and diversions in.	Near Driggs, Idaho.....	1934-40.....	Do.
Wallowa Lake Reservoir.	At outlet, near Joseph, Oreg.....	1925-40*.....	Oregon State engineer.
Wallowa River.....	Above Wallowa Lake, Oreg.....	1940*.....	Do.
Do.....	Below Wallowa Lake, Oreg.....	1926-40*.....	Do.

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

Note.- Of the records for the stations operated by the Oregon State engineer, those for 1925-30 are published in Bulletin 8 of the State engineer, and those for 1931-36 (including some to December 1936) in Bulletin 9; those for 1937-40 have not been published.

Records for the stations operated by Idaho Water District 36 are published in the annual reports of that organization.

The Soil Conservation Service began in 1938 to make studies of run-off from two areas of less than 250 acres each in the vicinity of Emmett, Idaho, and from two areas of less than 100 acres each in the vicinity of Moscow, Idaho. The records are in the files of that organization.

COOPERATION

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

Idaho: Department of Reclamation, James Spofford, commissioner.

Oregon: Office of the State engineer, Charles E. Stricklin.

Washington: State Department of Conservation and Development, John Brocke Fink, director, and C. J. Bartholet, supervisor of hydraulics.

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

Funds were furnished by the Corps of Engineers, United States Army, for the construction and maintenance of two gaging stations in Idaho.

Financial assistance was also furnished by the Office of Indian Affairs and the Bureau of Reclamation of the United States Department of the Interior; the Flood Control Coordinating Committee, the Soil Conservation Service, and the Forest Service of the United States Department of Agriculture; and the Weather Bureau of the United States Department of Commerce.

Assistance in collecting records was rendered also by the following municipality, counties, organizations, corporations, and individuals:

Idaho: City of Pocatello, Idaho Power Co., Lake Irrigation District, Washington Water Power Co., Board of Control for Boise Project, Bradley Mining Co., Western States Utilities Co., Idaho Water District 36, North Side Canal Co., Twin Falls Canal Co., American Falls Reservoir District 2, Jackson Hole Light and Power Co., Utah Power & Light Co., and watermasters for Big Lost, Little Lost, Big Wood, Little Wood, Boise, Lake Fork of Payette, and Weiser Rivers and Mud Lake.

Oregon: Warmsprings Irrigation District; Malheur, Baker, Union, and Wallowa Counties; Eastern Oregon Light & Power Co.; and Inland Power & Light Co.

Washington: Washington Water Power Co.

DIVISION OF WORK

The stream-gaging work was conducted by the water resources branch of the Geological Survey, Glenn L. Parker, chief hydraulic engineer, Carl G. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface waters. The data for the stations in the several States were collected and prepared for publication under supervision of district engineers as follows: For Snake River at and above Milner, Idaho, for stations on tributaries that enter Snake River above Idaho Falls (except those

in the Salt River Basin in Wyoming), and for Blackfoot River near Blackfoot, Idaho,--Lynn Crandall. For all other stations in Idaho, for stations in Salmon Falls Creek Basin in Nevada, and for Snake River at Oxbow, Oreg., T. R. Newell. In Oregon, G. H. Canfield, the work being done in collaboration with C. E. Stricklin, State engineer. In Washington, G. L. Parker until Oct. 17, 1939, succeeded by F. M. Veatch. In Wyoming, Robert Follansbee. In Nevada, A. B. Purton.

The records were reviewed and the manuscript prepared for publication under the direction of B. J. Peterson, engineer in charge, and M. C. Boyer, associate ergineer, section of reports.

400457 O - 41 - 2

SNAKE RIVER MAIN STEM

Jackson Lake at Moran, Wyo.

Location.- Staff gage, lat. 43°51', long. 110°35', in sec. 18, T. 45 N., R. 114 W., a short distance above dam on Snake River. Datum of gage is at mean sea level (levels by Bureau of Reclamation.)

Drainage area.- 816 square miles.

Records available.- July 1908 to September 1940 (1908-10, fragmentary).

Extremes.- Maximum contents during year, 853,640 acre-feet June 15 (elevation, 6,769.26 feet); minimum, 154,790 acre-feet Sept. 19 (elevation, 6,738.57 feet).
1908-40: Maximum contents, 857,220 acre-feet June 23, 1937 (elevation, 6,769.40 feet); no usable contents on several days in period August to October 1919 (elevation, 6,730.00 feet).

Remarks.- Reservoir was formed in 1906 by log crib dam, with a usable capacity of 300,000 acre-feet. This dam was washed out in July 1910 and replaced an earth dam, forming a reservoir with a usable capacity of 380,000 acre-feet. The earth dam was raised in 1916 increasing the usable capacity to 790,000 acre-feet. In 1917, by dredging the outlet, the capacity was further increased to 847,000 acre-feet between elevations 6,730 feet (top of baffles in sluices) and 6,769 feet (top of spillway gates) above mean sea level. Water is used for irrigation in Snake River Valley, Idaho. Gage read once daily at 7 a.m. during irrigation season and at 8 a.m. during rest of year. Contents as given are computed from elevation at those times; all available for release.

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

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	313,810	335,150	347,740	365,920	390,680	419,090	444,640	492,700	758,240	783,220	484,850	205,750
2	314,460	335,580	348,170	367,020	391,350	419,540	445,550	494,320	760,690	776,950	474,070	196,780
3	315,320	336,020	348,390	367,900	392,240	420,670	446,680	497,550	780,720	773,690	463,300	190,250
4	316,180	336,450	348,820	368,560	392,900	421,580	447,590	500,780	787,740	767,700	452,370	186,290
5	317,030	336,880	349,260	369,210	393,570	422,250	448,280	505,160	796,010	761,470	441,230	185,300
6	317,890	337,320	349,700	369,870	394,690	422,930	449,180	509,340	804,600	755,250	430,820	184,700
7	319,820	337,750	350,140	370,530	396,250	423,600	449,870	513,290	811,170	746,280	420,670	180,190
8	321,110	338,190	350,570	371,640	396,920	425,860	450,550	517,010	818,750	737,140	409,220	174,340
9	321,970	338,620	351,010	372,520	397,600	426,760	451,910	521,660	826,870	727,990	397,320	168,880
10	322,610	339,060	351,450	373,630	398,270	427,440	452,600	526,540	833,230	718,610	386,480	166,540
11	323,260	339,490	352,110	374,960	399,610	428,340	453,960	535,640	839,080	707,810	375,400	165,570
12	323,900	339,920	352,550	376,070	400,500	428,790	455,100	547,340	844,680	696,270	364,330	163,230
13	324,540	340,360	352,990	377,400	401,400	429,240	456,010	556,720	851,940	684,320	353,860	161,120
14	325,190	340,790	353,640	377,840	402,290	429,920	457,370	566,380	853,380	671,890	342,530	160,350
15	325,830	341,220	354,080	378,280	403,180	430,370	459,190	577,460	853,640	658,820	331,030	159,580
16	326,480	341,660	354,740	378,940	403,860	431,050	461,240	587,900	852,350	645,280	320,040	158,050
17	327,120	342,090	355,400	380,050	404,530	431,950	462,850	599,760	852,350	633,730	309,310	156,710
18	327,770	342,530	356,060	380,270	404,970	432,630	463,760	610,020	852,350	623,640	298,660	155,560
19	328,420	342,960	356,500	380,940	405,420	433,080	464,910	620,530	850,820	615,040	288,270	154,790
20	328,860	343,400	357,150	381,820	405,870	433,530	465,600	628,920	850,560	605,720	277,540	155,750
21	329,510	343,830	357,590	382,270	406,760	433,980	469,030	639,510	849,790	595,490	267,480	156,520
22	329,940	344,050	358,250	382,710	408,100	434,660	471,320	648,890	846,720	585,290	259,090	157,470
23	330,590	344,480	358,690	383,380	409,450	435,110	472,700	657,120	842,140	574,860	252,340	158,240
24	331,030	344,910	359,350	384,480	410,340	435,780	474,990	665,360	837,300	564,730	243,860	158,320
25	331,680	345,130	360,220	385,810	411,680	436,240	476,600	673,840	831,700	556,020	237,730	159,580
26	332,110	345,560	361,100	386,920	412,580	437,140	478,890	687,740	824,580	547,810	233,040	160,350
27	332,760	346,000	361,760	388,030	413,470	438,720	481,860	700,930	816,720	538,210	227,940	161,310
28	333,410	346,430	362,630	388,470	415,710	440,320	484,390	713,210	808,900	527,230	224,880	163,030
29	333,850	346,870	363,290	388,910	417,970	441,680	486,470	725,020	800,560	516,540	220,630	164,790
30	334,280	347,300	363,950	389,580	-	443,040	489,700	736,150	791,500	506,090	216,400	166,350
31	334,710	-	364,830	390,020	-	443,950	-	747,030	-	495,240	211,980	-

Monthly elevation and contents, water year October 1939 to September 1940

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	6,746.35	313,170	-
Oct. 31	6,747.35	334,710	+21,540
Nov. 30	6,747.93	347,300	+12,590
Dec. 31	6,748.73	364,830	+17,530
Calendar year 1939	-	-	-113,600
Jan. 31	6,749.87	390,020	+25,190
Feb. 29	6,751.12	417,970	+27,950
Mar. 31	6,752.27	443,950	+25,980
Apr. 30	6,754.27	489,700	+45,750
May 31	6,765.03	747,030	+257,330
June 30	6,766.81	791,500	+44,470
July 31	6,754.51	495,240	-296,260
Aug. 31	6,741.48	211,980	-283,260
Sept.30	6,739.17	166,350	-45,630
Water year 1939-40	-	-	-146,820

Snake River at Moran, Wyo.
(Formerly published as Snake River near Moran, Wyo.)

Location.- Water-stage recorder, lat. 43°51', long. 110°35', in sec. 18, T. 45 N., R. 114 W., at Moran, 1,000 feet downstream from Jackson Lake Dam. Prior to May 20, 1940, water-stage recorder in sec. 17, T.45 N., R. 114 W. at site 1.6 miles downstream at different datum. On that date there was 21.5 second-feet inflow betweer new and old sites.

Drainage area.- 816 square miles. Prior to May 20, 1940, 820 square miles.

Records available.- September 1903 to September 1940.

Average discharge.- 37 years, 1,425 second-feet.

Extremes.- Maximum discharge during year, 8,150 second-feet July 14 (gage height, 9.12 feet); minimum, 10 second-feet May 20-22, 24, 25 (gage height, 1.21 feet).
1903-40: Maximum discharge, 15,100 second-feet June 12, 1918 (gage height, 10.41 feet, former site and datum); practically no flow for a few days in 1907 and 1909.

Remarks.- Records excellent except those for periods when gates at dam were closed, which are fair.
Flow regulated by Jackson Lake (see p. 12).

Cooperation.- Gage-height record and results of one discharge measurement furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	23	23	24	24	24	39	46	15	5,270	6,380	3,730
2	26	23	23	24	24	24	39	46	14	3,760	6,380	4,480
3	25	23	23	24	24	24	40	46	14	3,640	6,400	3,700
4	24	23	23	24	24	24	41	46	15	4,300	6,400	1,150
5	23	23	24	24	24	24	42	37	21	4,560	6,380	681
6	23	23	24	24	24	24	42	37	22	5,110	5,870	1,650
7	23	23	24	24	24	25	42	37	24	5,920	6,400	2,850
8	23	23	24	24	24	25	42	37	24	5,900	6,380	2,900
9	23	23	24	24	24	25	44	32	24	6,090	6,380	2,620
10	24	23	24	24	24	25	46	32	24	6,400	6,380	1,950
11	24	23	24	24	24	24	43	32	24	6,940	6,380	1,350
12	24	23	24	24	24	24	40	32	24	7,320	6,380	1,380
13	24	23	23	24	24	24	46	36	2,220	7,540	6,400	1,200
14	24	23	23	24	24	24	52	32	3,930	7,890	6,380	1,070
15	24	23	23	24	24	24	59	32	4,420	8,110	6,300	949
16	24	23	23	24	24	24	55	32	3,980	7,680	6,190	887
17	24	23	23	24	24	24	51	32	3,620	6,520	6,090	887
18	24	23	23	24	24	24	52	32	3,840	5,480	6,010	887
19	24	23	23	24	24	24	53	32	3,460	5,560	5,890	591
20	24	23	23	24	24	24	57	10	3,370	5,900	5,370	186
21	24	23	23	24	24	24	61	10	3,640	6,140	4,860	25
22	24	23	24	24	24	24	61	483	4,450	6,380	4,890	25
23	24	23	24	24	24	25	61	1,380	4,440	6,230	4,810	24
24	24	23	24	24	24	26	59	960	4,620	5,500	4,200	21
25	24	23	24	24	24	28	59	10	5,320	5,190	3,400	20
26	24	23	24	24	24	30	59	12	5,870	5,470	2,790	19
27	24	23	24	24	24	34	57	17	5,820	6,300	2,340	19
28	24	23	24	24	24	38	59	17	5,820	6,230	2,140	21
29	24	23	24	24	24	38	55	18	6,090	6,260	2,600	24
30	24	23	24	24	-	38	50	15	5,970	6,350	2,610	24
31	24	-	24	24	-	38	-	15	-	6,380	2,750	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	748	30	23	24.1	1,480
November	690	23	23	23.0	1,370
December	731	24	23	23.6	1,450
Calendar year 1939	490,475	6,890	23	1,344	972,800
January	744	24	24	24.0	1,480
February	696	24	24	24.0	1,380
March	827	38	24	26.7	1,640
April	1,506	61	39	50.2	2,990
May	3,635	1,380	10	117	7,210
June	81,125	6,090	14	2,704	160,900
July	186,320	8,110	3,640	6,010	369,600
August	162,130	6,400	2,140	5,230	321,600
September	35,320	4,480	19	1,177	70,060
Water year 1939-40	474,472	8,110	10	1,296	941,200

Note.- Gates at dam closed Oct. 1 to May 21, May 25 to June 12, Sept. 21-30. Discharge Oct. 1 to Apr. 18 based on once-weekly staff-gage readings and interpolated on intervening days; discharge for other days when gates were closed based on daily staff-gage readings.

Snake River at Calamity Point, near Irwin, Idaho

Location.- Water-stage recorder, lat. 43°19'35", long. 111°11'40", in SW¼ sec. 16, T. 1 S., R. 45 E., 400 feet upstream from Bear Creek, 5,600 feet upstream from Calamity Point dam site, and 7½ miles southeast of Irwin.

Drainage area.- 5,110 square miles.

Records available.- April 1934 to October 1936, April 1939 to September 1940.

Extremes.- Maximum discharge during year, 13,200 second-feet June 16 (gage height, 5.10 feet); minimum daily, 1,560 second-feet Jan. 20.
1934-36, 1939-40: Maximum discharge, 27,500 second-feet June 1, 1936 (gage height, 8.65 feet); minimum, 1,530 second-feet (estimated) Apr. 1-6, 1936.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow partly regulated by Jackson Lake (see p. 12). Many small diversions from tributaries above station for irrigation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,600	2,320	1,960	a1,980	b1,810	2,050	2,690	3,490	10,600	9,650	8,550	4,610
2	2,640	2,300	1,970	a1,890	b1,840	1,930	2,710	3,780	10,700	9,140	8,430	5,500
3	2,660	2,290	1,960	h1,890	b1,820	1,890	2,600	4,360	10,100	7,920	8,400	6,240
4	2,590	2,280	1,940	a1,880	h1,740	1,860	2,510	5,110	9,110	7,600	8,400	5,730
5	2,590	2,230	1,910	a1,870	a1,800	1,840	2,540	5,250	8,920	7,950	8,370	3,730
6	2,570	2,230	1,900	a1,860	a1,810	1,800	2,600	5,110	9,140	7,980	8,430	3,050
7	2,620	2,230	1,910	a1,830	*1,820	a1,820	2,590	4,940	8,160	8,370	7,950	3,390
8	2,620	2,240	1,940	h1,800	1,760	a1,320	2,600	4,890	8,070	8,860	8,370	4,610
9	2,570	2,220	1,960	a1,820	1,750	a1,800	2,760	5,280	7,720	8,830	8,310	4,820
10	2,520	2,160	1,970	h1,830	1,790	a1,780	2,790	6,020	7,010	8,890	8,310	4,610
11	2,510	2,110	*1,970	b1,800	1,790	a1,750	2,710	7,120	6,670	9,200	8,250	4,130
12	2,490	2,110	1,930	b1,770	1,700	1,730	2,660	8,190	6,780	9,620	8,220	3,510
13	2,470	2,100	1,890	b1,740	1,700	1,730	2,770	9,710	7,400	9,940	8,190	3,530
14	2,460	2,110	1,900	b1,720	1,740	1,740	3,090	10,100	10,400	a10,100	8,220	3,430
15	2,440	2,100	1,900	b1,700	1,760	1,730	3,390	9,620	12,400	a10,400	8,160	3,240
16	2,460	2,070	1,940	b1,670	1,710	1,750	3,900	9,910	12,900	a10,700	8,040	3,130
17	2,430	2,040	1,960	b1,640	1,710	1,790	3,730	10,000	11,900	a10,000	7,890	2,960
18	2,430	2,010	1,910	b1,620	1,730	1,820	3,670	9,650	11,500	9,040	7,840	3,020
19	2,410	2,010	1,790	b1,590	1,710	1,840	3,920	9,200	11,300	8,250	7,810	3,090
20	2,400	2,010	1,830	b1,560	1,710	1,860	4,220	8,860	11,000	8,220	7,720	3,110
21	2,380	2,010	1,870	b1,580	1,680	1,900	4,200	8,520	10,500	8,280	7,230	2,820
22	2,360	2,010	1,840	b1,600	1,710	1,960	3,940	8,040	10,300	8,430	6,870	2,440
23	2,360	2,010	1,800	b1,620	1,740	2,030	3,900	8,800	10,200	8,580	6,900	2,290
24	2,350	2,010	1,820	b1,640	1,740	2,080	3,880	10,400	9,810	8,370	6,900	2,230
25	2,350	1,980	1,800	b1,660	1,740	2,160	3,980	10,400	9,520	7,690	6,340	2,220
26	2,350	1,940	b1,800	b1,680	1,750	2,240	4,050	10,600	9,910	7,490	5,630	2,220
27	2,350	1,960	b1,800	b1,720	1,910	2,600	4,090	11,100	10,000	7,860	4,990	2,220
28	2,340	1,940	b1,800	b1,740	2,080	2,760	4,050	11,100	9,780	8,520	4,470	2,320
29	2,350	1,910	b1,800	b1,760	2,220	2,510	3,900	10,800	9,650	8,460	4,160	2,410
30	2,340	1,910	b1,800	b1,780	-	2,460	3,630	10,500	9,740	8,550	4,490	2,550
31	2,320	-	b1,800	b1,790	-	2,620	-	10,300	-	8,580	4,490	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	76,330	2,660	2,320	2,462	151,400
November	62,850	2,320	1,910	2,095	124,700
December	58,370	1,970	1,790	1,883	115,800
Calendar year	-	-	-	-	-
January	53,930	1,890	1,560	1,740	107,000
February	51,770	2,220	1,680	1,785	102,700
March	61,650	2,760	1,730	1,989	122,300
April	100,070	4,220	2,510	3,336	198,500
May	251,150	11,100	3,490	8,102	498,100
June	291,190	12,900	6,670	9,706	577,600
July	271,470	10,700	7,490	8,757	538,500
August	226,330	8,550	4,160	7,301	448,900
September	105,160	6,240	2,220	3,439	204,600
Water year 1939-40	1,608,270	12,900	1,560	4,394	3,190,000

*Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station near Heise
b Stage-discharge relation affected by ice.
h Discharge computed from staff-gage reading

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Snake River near Heise, Idaho

Location.- Water-stage recorder, lat. 43°37', long. 111°40', in sec. 5, T. 3 N., R. 41 E., 3 miles upstream from Heise and 23 miles upstream from Henrys Fork. Datum of gage is 5,014.90 feet above mean sea level.

Drainage area.- 5,740 square miles.

Records available.- September 1910 to September 1940 except for winters of 1914-24.

Average discharge.- 30 years (1910-40), 6,770 second-feet.

Extremes.- Maximum discharge during year, 13,900 second-feet June 17 (gage height, 5.87 feet); minimum, 1,740 second-feet Jan. 20 (gage height, 1.60 feet).
1910-40: Maximum discharge, about 60,000 second-feet May 19, 1927, result of washing out of landslide on Gros Ventre River (gage height, about 16.0 feet, present datum); minimum, 1,210 second-feet Jan. 22, 1935 (gage height, 1.15 feet).

Remarks.- Records excellent except those for periods of ice effect, which are fair. Station is above all irrigation diversions from main river except Riley ditch (capacity, about 30 second-feet), which diverts 1 mile above station. About 105,000 acres irrigated by diversions from tributaries above station in both Wyoming and Idaho. Flow partly regulated by Jackson Lake (see p. 12).

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,090	2,660	2,270	2,320	2,120	2,650	3,180	4,470	11,400	10,500	8,870	4,900
2	3,050	2,660	2,300	2,340	*2,160	2,440	3,230	4,510	11,700	10,200	8,810	5,500
3	3,070	2,630	2,280	2,340	2,160	2,330	3,200	5,230	11,400	9,080	8,670	6,550
4	3,050	2,630	2,280	2,330	2,160	2,300	3,050	6,280	10,200	8,260	8,670	6,760
5	3,000	2,600	2,260	2,320	2,150	2,260	3,010	6,580	9,750	8,640	8,670	4,680
6	2,980	2,580	2,240	2,280	2,140	2,240	3,060	6,460	10,100	8,640	8,640	3,590
7	3,020	2,570	2,240	2,220	2,160	2,200	3,060	6,200	9,180	8,810	8,260	3,350
8	3,020	2,570	2,260	2,200	2,160	2,220	3,060	6,110	8,980	9,540	8,600	4,780
9	3,000	2,570	2,300	2,220	2,100	2,220	3,160	6,430	8,840	9,360	8,600	5,260
10	2,950	2,530	2,300	2,260	2,150	2,200	3,310	7,100	8,030	9,460	8,640	5,100
11	2,930	2,470	2,300	2,260	2,180	2,150	3,230	8,260	7,570	9,570	8,600	4,800
12	2,900	2,450	2,300	2,160	2,100	2,100	3,160	9,320	7,410	10,000	8,600	4,030
13	2,880	2,440	*2,240	2,080	2,010	2,060	3,200	10,700	7,970	10,300	8,570	3,900
14	2,850	2,440	2,220	2,050	2,060	2,050	3,590	11,800	9,780	10,500	8,570	3,880
15	2,850	2,450	2,220	b2,030	2,100	2,050	4,030	11,300	12,800	10,700	8,570	3,630
16	2,850	2,420	2,260	2,020	2,080	2,060	4,610	11,400	13,300	11,100	8,430	3,530
17	2,830	2,390	2,260	b1,980	2,020	2,090	4,610	11,500	13,000	11,100	8,360	3,370
18	2,830	2,360	2,260	b1,940	2,050	2,120	4,470	11,200	12,100	10,100	8,260	3,370
19	2,810	2,330	2,160	b1,900	2,080	2,140	4,700	10,700	12,100	8,940	8,160	3,510
20	2,780	2,330	2,080	1,810	2,030	2,180	5,080	10,300	11,600	8,670	8,130	3,610
21	2,760	2,330	2,180	b1,880	2,010	2,200	5,280	9,930	11,300	8,740	7,930	3,370
22	2,760	2,330	2,180	b1,920	1,980	2,240	5,000	9,400	10,700	8,840	7,410	2,970
23	2,740	2,330	2,180	b1,930	2,090	2,380	4,900	9,260	11,100	9,010	7,350	2,740
24	2,740	2,330	2,180	b1,950	2,090	2,420	4,880	10,800	10,600	8,910	7,380	2,640
25	2,740	2,320	2,160	b1,970	2,080	2,500	5,050	11,600	10,100	8,400	7,040	2,620
26	2,740	2,280	2,080	b2,000	2,080	2,580	5,150	11,400	10,300	7,930	6,370	2,660
27	2,740	2,270	b2,080	b2,040	2,180	2,880	5,180	12,100	10,700	8,000	5,610	2,620
28	2,730	2,300	b2,080	b2,060	2,440	3,250	5,180	12,300	10,500	8,840	5,080	2,720
29	2,710	2,280	b2,080	b2,080	2,610	3,070	5,100	12,000	10,200	8,840	4,580	2,870
30	2,690	2,270	b2,150	2,090	-	2,930	4,750	11,600	10,300	8,770	4,820	2,920
31	2,680	-	2,300	2,080	-	3,050	-	11,200	-	8,910	4,900	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	88,770	3,090	2,680	2,864	176,100
November	73,120	2,660	2,270	2,437	145,000
December	68,680	2,300	2,080	2,215	136,200
Calendar year 1939	2,171,770	18,800	2,120	5,950	4,308,000
January	65,060	2,340	1,810	2,099	129,000
February	61,730	2,610	1,980	2,129	122,400
March	73,560	3,250	2,050	2,373	145,900
April	122,470	5,280	3,010	4,082	242,900
May	287,440	12,300	4,470	9,272	570,100
June	313,010	13,300	7,410	10,430	620,800
July	288,660	11,100	7,930	9,312	572,500
August	239,150	8,870	4,580	7,715	474,300
September	116,230	6,760	2,620	3,874	230,500
Water year 1939-40	1,797,880	13,300	1,810	4,912	3,566,000

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

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 1940. One of the canals is equipped with a water-stage recorder, the others with staff gages which are read once daily; records of discharge are combined to show total diverted flow. Records good except those for May, which are fair.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								1,200	8,200	8,150	6,160	5,250
2								1,440	8,150	7,370	6,180	5,080
3								1,380	8,040	6,880	6,530	5,630
4								1,510	7,870	5,810	6,510	5,070
5								1,570	6,830	6,620	6,600	4,730
6								2,080	5,600	6,840	6,770	4,280
7								2,480	5,890	6,890	6,360	4,080
8								2,830	5,660	7,350	6,300	3,900
9								3,520	5,220	7,620	5,850	4,160
10								4,310	5,050	7,910	5,430	4,060
11								5,120	5,460	7,970	5,430	4,270
12								5,600	5,780	8,090	5,350	4,330
13								6,050	6,820	8,010	5,830	4,340
14								6,430	7,540	8,090	5,890	4,090
15								6,630	7,790	8,100	5,860	4,040
16								6,820	7,750	8,170	5,910	3,940
17								7,350	7,910	8,080	5,220	3,890
18								7,520	8,120	7,480	5,230	4,010
19								7,590	8,230	7,310	5,370	3,910
20								7,560	8,290	7,170	5,360	3,410
21								7,700	8,290	7,390	5,300	3,260
22								7,780	8,190	7,200	5,120	3,330
23								7,810	7,960	7,230	5,640	3,260
24								8,060	8,040	7,280	5,680	3,100
25								8,090	7,910	7,220	5,900	2,920
26								7,710	7,790	7,130	5,540	2,650
27								8,060	7,900	7,210	5,130	2,600
28								8,130	8,120	6,390	5,330	2,590
29								8,070	8,040	6,340	5,230	2,500
30								8,020	8,200	6,310	5,310	2,490
31								8,090	-	6,210	5,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	176,510	8,130	1,200	5,694	350,100
June	220,640	8,290	5,050	7,355	437,600
July	225,820	8,170	5,810	7,284	447,900
August	177,560	6,770	5,120	5,728	352,200
September	115,170	5,630	2,490	3,839	288,400
The period	-	-	-	-	1,876,000

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Snake River near Shelley, Idaho

Location.- Water-stage recorder, lat. 43°25', long. 112°08', in sec. 17, T. 1 N., R. 37 E., a quarter of a mile east of Woodville and 3 miles north of Shelley.

Drainage area.- Indeterminate because of large noncontributing areas. Figure previously published (10,100 square miles) did not include area of Mud Lake Basin.

Records available.- March 1915 to September 1940 (summer months only during some years).

Extremes.- Maximum discharge during year, 9,470 second-feet June 7 (gage height, 7.91 feet); minimum, 1,010 second-feet Sept. 19 (gage height, 4.18 feet).
1915-40: Maximum discharge, 47,200 second-feet June 17, 1918 (gage height, 16.97 feet); minimum, 288 second-feet Nov. 5, 1934 (gage height, 2.22 feet).
Greatest discharge known, slightly in excess of 70,000 second-feet (estimated) June 6, 1894, at former site at Eagle Rock (now Idaho Falls), 7 miles above present site.

Remarks.- Records excellent except those for periods of no gage-height record, which are good. Flow partly regulated by Jackson Lake (see p. 12), Henrys Lake (see p. 40), Island Park Reservoir (see p. 44), and Grassy Lake (see p. 60). Many diversions above station for irrigation.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 31, July 20 to Sept. 30)

4.2	1,060	5.5	2,610	7.0	6,370
4.5	1,330	6.0	3,570	7.5	8,040
5.0	1,890	6.5	4,830	8.0	9,790

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,850	2,560	2,050	a2,600		3,550	3,500	6,400	6,240	3,590	4,190	1,470
2	1,820	2,530	2,050	3,000		3,570	3,660	5,670	6,500	3,940	4,160	1,470
3	1,560	2,500	2,020	3,250		3,330	3,680	5,450	6,930	4,860	4,020	1,920
4	1,750	2,480	2,030	3,170		3,190	3,570	5,890	6,830	4,750	3,750	3,190
5	1,930	2,400	1,970	3,130		3,130	3,350	6,930	6,670	4,750	3,680	3,620
6	2,100	2,420	1,980	3,020		3,070	3,290	7,460	8,110	4,290	3,500	2,340
7	2,220	2,420	1,900	3,040		2,980	3,330	7,060	9,220	5,940	3,500	1,820
8	2,390	2,360	1,920	2,870		2,730	3,530	6,440	8,660	4,060	3,500	1,700
9	2,550	2,380	1,920	2,530		2,760	3,570	5,580	8,730	3,920	4,040	2,530
10	2,580	2,330	1,970	2,530		2,850	3,900	4,860	8,660	3,250	4,390	2,920
11	2,610	2,400	2,010	2,640		2,820	4,040	4,660	7,460	2,980	4,450	2,910
12	2,630	2,400	2,060	2,560		2,640	4,020	5,120	5,990	2,820	4,470	2,700
13	2,610	2,390	2,050	-		2,590	3,850	6,110	4,920	3,060	4,500	2,260
14	2,660	2,390	2,060	-		2,480	3,660	7,200	4,160	3,250	4,160	2,170
15	2,580	2,270	2,010	-		2,440	4,290	7,900	5,540	3,440	4,140	1,970
16	2,530	2,360	1,990	-		2,360	4,890	7,200	7,900	3,730	4,140	1,760
17	2,480	2,420	1,900	-		2,340	5,420	6,800	8,140	4,060	4,060	1,550
18	2,510	2,340	2,050	-		2,320	5,390	6,670	7,230	4,190	4,320	1,300
19	2,480	2,260	2,030	-		2,380	5,330	6,270	6,180	3,920	4,020	1,380
20	2,480	a2,260	1,970	-		2,390	5,700	5,730	5,510	3,310	3,850	1,890
21	2,470	a2,260	1,900	-		2,390	6,500	5,240	5,120	3,370	3,920	2,240
22	2,420	a2,270	2,030	-		2,380	6,930	4,660	4,770	3,230	4,040	2,300
23	2,340	2,270	2,270	-		2,450	6,600	4,190	4,630	3,070	3,870	2,400
24	2,290	a2,210	2,130	-		2,440	6,470	3,850	4,690	2,980	3,550	2,330
25	2,260	2,150	1,930	-		2,660	6,470	4,950	4,190	2,850	3,500	2,220
26	2,330	2,030	2,150	-		2,730	6,600	5,860	3,940	2,510	3,210	2,170
27	2,390	2,030	1,990	-		2,920	6,730	6,020	4,020	2,150	2,820	2,090
28	2,560	2,010	a1,800	-		3,210	6,770	6,770	4,040	2,290	2,510	2,290
29	2,580	2,020	1,730	-		3,680	7,000	7,060	3,780	3,680	2,080	2,380
30	2,610	1,970	1,720	-		3,570	6,900	7,060	3,370	4,040	1,710	2,560
31	2,610	-	a1,800	-		3,350	-	6,770	-	4,140	1,540	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	72,980	2,660	1,560	2,354	144,800
November	69,090	2,560	1,970	2,303	137,000
December	61,390	2,270	1,600	1,980	121,800
Calendar year 1939	1,517,810	16,700	1,530	4,158	3,011,000
January 1-12	34,340	3,250	2,530	2,862	68,110
February	-	-	-	-	-
March	87,700	3,680	2,320	2,829	174,000
April	148,940	7,000	3,290	4,965	295,400
May	187,830	7,900	3,850	6,059	372,600
June	182,130	9,220	3,370	6,071	361,200
July	110,420	4,860	2,150	3,562	219,000
August	113,590	4,500	1,540	3,664	225,300
September	65,850	3,620	1,300	2,195	130,600
Water year	-	-	-	-	-

a No gage-height record; discharge interpolated or computed on basis of records for station at Clough Ranch.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

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

Between Shelley and Clough Ranch, 13 canals divert water from Snake River for irrigation. Records available during each irrigation season from 1919 to 1940. The two largest canals are equipped with recorders, the others with staff gages which are read once daily. Records of discharge are combined to show total diverted flow, and are good.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								1,580	3,600	2,470	2,120	753
2								1,820	3,560	2,280	2,120	1,170
3								2,000	3,540	1,640	2,110	882
4								2,430	3,500	1,500	1,830	977
5								2,620	3,260	1,860	2,270	473
6								2,720	2,890	2,060	2,160	416
7								2,810	2,680	2,760	2,120	631
8								3,020	2,580	2,740	2,230	1,210
9								3,270	2,350	2,860	1,990	1,100
10								3,440	2,480	2,800	2,050	1,440
11								3,550	2,680	2,790	1,910	1,430
12								3,440	3,070	2,620	1,730	1,480
13								3,510	3,310	2,700	2,220	1,820
14								3,540	3,400	3,000	2,230	1,820
15								3,580	3,520	2,830	2,330	1,820
16								3,560	3,630	2,790	2,070	1,420
17								3,570	3,380	3,050	1,340	1,000
18								3,540	3,420	3,030	724	878
19								3,530	3,420	2,900	636	704
20								3,490	3,340	2,910	1,150	721
21								3,460	3,410	2,390	1,530	636
22								3,460	3,490	2,340	1,930	554
23								3,440	3,440	2,060	2,030	549
24								3,380	3,470	2,030	2,030	830
25								3,540	3,430	2,340	2,070	1,010
26								3,700	3,420	1,640	2,100	1,040
27								3,630	3,410	1,220	2,000	1,080
28								3,630	3,460	1,220	1,240	999
29								3,670	3,210	1,380	1,230	907
30								3,640	2,860	2,160	972	787
31								3,610	-	2,690	754	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	100,190	3,700	1,590	3,232	198,700
June	97,210	3,630	2,350	3,240	192,800
July	73,060	3,050	1,220	2,357	144,900
August	55,606	2,380	666	1,794	110,300
September	30,537	1,820	416	1,018	60,570
The period	-	-	-	-	707,300

3-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Snake River at Clough Ranch, near Blackfoot, Idaho

Location.- Water-stage recorder, lat. 43°07', long. 112°31', in SE¼ sec. 30 (revised), T. 3 S., R. 34 E., a quarter of a mile downstream from Blackfoot River and 14 miles southwest of Blackfoot.

Drainage area.- Indeterminate because of large noncontributing areas. Figure previously published (11,700 square miles) did not include area of Mud Lake-Lost River Basin.

Records available.- June 1910 to September 1940.

Extremes.- Maximum discharge during year, 6,620 second-feet June 9 (gage height, 5.55 feet); minimum, 148 second-feet July 15 (gage height, 0.57 foot).

1910-40: Maximum discharge, 46,200 second-feet June 18, 1918 (gage height, 14.80 feet); minimum, 111 second-feet Nov. 10, 1934 (gage height, 0.80 foot). Late in summer of 1905 there was no flow in Snake River for a distance of 10 miles in vicinity of Blackfoot. On Aug. 9, 1905, discharge of Snake River just below mouth of Blackfoot River was 39 second-feet, supplied by ground-water inflow a short distance upstream.

Remarks.- Records excellent. Flow regulated by Jackson Lake (see p. 12), Henrys Lake (see p. 40), Island Park Reservoir (see p. 44), Grassy Lake (see p. 67), and Blackfoot-Marsh Reservoir, having a combined capacity of 1,483,000 acre-feet. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	468	2,200	2,130	2,400	2,150	3,490	3,200	5,170	2,640	488	1,620	661
2	534	2,150	2,120	2,910	2,080	3,550	3,360	4,250	2,560	1,230	1,750	400
3	552	2,050	2,090	3,250	2,010	3,380	3,420	3,460	3,030	2.020	1,660	300
4	719	1,990	2,120	3,370	2,170	3,230	3,410	3,360	3,240	2.790	1,530	1,080
5	972	1,970	2,220	3,330	2,190	3,110	3,220	3,890	3,290	2.660	1,250	2,610
6	1,240	a1,970	2,220	3,420	2,420	3,040	3,060	4,500	4,250	2.260	1,160	2,420
7	1,480	a1,970	2,150	2,850	2,480	2,950	3,060	4,410	6,180	1,230	1,080	1,350
8	1,740	a1,930	2,010	2,850	2,410	2,820	3,190	3,580	6,270	998	1,110	584
9	2,060	a1,920	2,010	2,800	2,560	2,630	3,190	2,580	6,360	1,130	1,320	661
10	2,230	1,890	1,970	2,740	2,660	2,770	3,360	1,690	6,510	682	1,810	1,290
11	2,320	1,910	1,970	2,720	2,610	2,750	3,640	990	5,520	300	1.990	1,370
12	2,300	1,970	2,000	2,660	2,670	2,640	3,740	1,030	3,690	175	2,270	1,260
13	2,350	2,000	2,150	2,090	2,610	2,550	3,620	1,790	2,270	155	1,970	798
14	2,350	1,970	2,230	1,610	2,590	2,440	3,440	2,620	1,220	155	1,740	626
15	2,290	1,940	2,160	1,920	2,670	2,350	3,710	3,800	726	150	1,470	510
16	2,220	1,910	2,020	1,940	2,550	2,280	4,180	3,560	2,150	280	1,540	477
17	2,100	2,010	2,010	2,290	2,640	2,300	4,840	3,110	4,090	552	2,230	718
18	2,090	2,000	2,020	1,710	2,550	2,300	5,100	2,870	4,100	830	2,880	742
19	2,060	1,990	2,060	1,620	2,560	2,280	4,960	2,790	2,880	970	3,140	790
20	2,040	2,150	2,260	1,320	2,530	2,260	4,980	2,420	2,250	640	2,730	1,100
21	1,970	2,100	2,240	1,120	2,460	2,290	5,210	1,790	1,800	577	2,040	1,490
22	1,910	2,150	2,240	990	2,550	2,230	5,670	1,340	1,430	822	1,780	1,830
23	1,840	2,160	2,280	998	2,550	2,280	5,760	822	1,180	750	1,660	1,770
24	1,620	2,160	2,470	1,360	2,480	2,260	5,340	422	1,300	814	1,430	1,630
25	1,620	2,190	2,130	1,260	2,720	2,350	5,290	270	1,030	510	1,260	1,330
26	1,650	2,190	2,060	1,360	2,750	2,360	5,290	1,270	605	477	1,190	1,260
27	1,830	2,150	1,990	1,660	3,040	2,520	5,340	1,810	411	902	1,120	1,180
28	2,020	2,100	1,460	1,800	3,600	2,720	5,320	2,230	375	718	1,080	1,230
29	2,120	2,120	1,480	1,970	3,550	3,160	5,460	2,870	400	1,160	934	1,530
30	2,170	2,060	1,610	2,220	-	3,450	5,500	3,090	345	1,560	682	1,770
31	2,190	-	1,570	2,300	-	3,210	-	3,010	-	1,360	689	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	55,055	2,350	468	1,776	109,200
November	61,270	2,200	1,890	2,042	121,500
December	63,450	2,470	1,460	2,047	125,900
Calendar year 1939	1,030,757	12,700	166	2,824	2,044,000
January	66,838	3,420	990	2,156	132,600
February	74,810	3,600	2,010	2,580	148,400
March	83,950	3,550	2,230	2,708	166,500
April	128,860	5,760	3,060	4,295	255,600
May	80,794	5,170	270	2,606	160,300
June	82,102	6,510	345	2,737	162,800
July	29,245	2,790	150	943	58,010
August	50,115	3,140	682	1,617	99,400
September	34,767	2,610	300	1,159	68,960
Water year 1939-40	811,256	6,510	150	2,217	1,609,000

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

American Falls Reservoir at American Falls, Idaho

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

Drainage area.- Indeterminate because of large noncontributing areas. Figure previously published (14,000 square miles) did not include area of Mud Lake-Lost River Basin.

Records available.- March 1926 to September 1940.

Extremes.- Maximum contents during year, 1,715,750 acre-feet Apr. 25 (elevation, 4,354.78 feet); minimum, 211,770 acre-feet Sept. 20 (elevation, 4,314.14 feet).
1926-40: Maximum contents, 1,726,580 acre-feet June 10, 1938 (elevation, 4,354.97 feet); minimum, 3,240 acre-feet Aug. 30, 1926 (elevation, 4,296.82 feet).

Remarks.- Reservoir is formed by concrete gravity dam with earth dikes at each end; partial storage began in 1926, full storage in 1927. Capacity, 1,700,00 acre-feet between elevations 4,295.66 feet (bottom of outlet gate) and 4,354.50 feet (top of spillway radial gates). Small amount of dead storage. Water is used for irrigation under canals diverting from Snake River at Minidoka and Milner Dams. Contents as here given are computed from mean daily elevations; all available for release.

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

Contents in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	256,160	458,710	652,770	862,920	1,099,330	1,343,520
2	260,490	466,520	659,070	871,160	1,106,990	1,352,930
3	265,460	475,020	667,040	879,400	1,114,660	1,359,950
4	269,570	482,210	673,680	890,380	1,122,480	1,369,030
5	273,730	490,230	660,990	899,400	1,131,230	1,375,080
6	279,960	496,870	687,460	911,870	1,141,380	1,384,660
7	285,080	504,560	694,970	921,180	1,149,210	1,391,720
8	289,980	510,830	701,460	929,670	1,157,510	1,396,770
9	295,590	515,100	707,950	938,560	1,166,370	1,407,910
10	302,710	521,650	713,060	945,970	1,173,900	1,413,570
11	309,840	525,070	717,920	959,740	1,182,850	1,423,850
12	318,140	528,580	727,750	967,670	1,190,860	1,430,540
13	325,730	532,390	733,720	974,350	1,200,740	1,437,730
14	333,330	536,500	740,040	983,530	1,208,750	1,445,450
15	340,210	540,310	746,360	992,110	1,216,420	1,451,620
16	348,490	547,060	754,160	998,550	1,225,060	1,457,610
17	355,820	553,810	758,480	1,005,850	1,233,210	1,463,570
18	362,170	560,440	768,220	1,013,140	1,240,400	1,470,900
19	369,090	566,800	776,150	1,017,870	1,248,080	1,478,230
20	376,100	573,460	779,400	1,022,160	1,256,710	1,485,030
21	384,110	580,430	788,450	1,027,330	1,264,500	1,491,320
22	391,390	587,160	797,350	1,031,950	1,272,290	1,499,700
23	398,820	594,660	804,390	1,036,570	1,280,570	1,507,030
24	403,440	601,540	810,320	1,042,080	1,285,930	1,516,040
25	409,330	608,420	818,840	1,047,560	1,298,100	1,522,430
26	414,460	615,600	827,080	1,053,300	1,305,410	1,530,420
27	421,780	622,670	834,700	1,060,350	1,314,810	1,536,270
28	427,040	630,730	841,560	1,067,830	1,325,210	1,547,990
29	434,660	636,140	846,130	1,075,430	1,334,610	1,557,040
30	442,550	644,910	850,710	1,083,100	-	1,571,660
31	450,900	-	856,420	1,090,760	-	1,580,290

Contents, in acre-feet, of American Falls Reservoir at American Falls, Idaho, water year October 1939 to September 1940--Continued

Day	Apr.	May	June	July	Aug.	Sept.
1	1,590,070	1,711,760	1,395,760	1,070,470	607,790	255,730
2	1,594,420	1,711,200	1,384,160	1,058,580	593,410	247,160
3	1,609,090	1,707,280	1,372,060	1,046,700	582,240	239,380
4	1,618,910	1,703,920	1,362,980	1,036,570	568,320	232,860
5	1,624,990	1,700,000	1,353,920	1,024,730	555,600	228,260
6	1,633,280	1,697,200	1,347,480	1,011,860	542,070	226,630
7	1,641,020	1,694,960	1,339,560	1,001,990	527,700	224,800
8	1,644,890	1,688,790	1,336,590	987,820	513,960	222,760
9	1,650,420	1,680,380	1,338,570	971,010	499,150	219,510
10	1,660,370	1,669,760	1,336,590	956,820	484,700	216,050
11	1,671,970	1,655,940	1,335,110	940,180	473,640	213,200
12	1,680,940	1,642,120	1,329,660	920,770	461,400	212,180
13	1,686,550	1,628,860	1,318,280	901,760	447,130	214,010
14	1,691,030	1,618,350	1,305,900	885,670	434,400	214,210
15	1,700,560	1,607,460	1,290,800	868,420	420,730	213,400
16	1,708,960	1,597,680	1,276,680	850,710	407,800	212,990
17	1,708,400	1,590,070	1,266,450	834,700	396,510	214,210
18	1,711,760	1,579,750	1,258,660	818,100	385,110	214,820
19	1,713,470	1,566,710	1,249,520	802,160	375,350	212,990
20	1,704,480	1,555,970	1,235,610	786,250	367,840	211,770
21	1,712,330	1,545,320	1,225,540	769,660	359,720	213,810
22	1,712,900	1,531,480	1,210,190	753,430	349,220	216,660
23	1,712,330	1,516,570	1,196,980	738,980	338,070	222,760
24	1,712,900	1,501,790	1,180,500	723,890	328,340	228,870
25	1,715,750	1,482,940	1,164,960	707,270	312,380	234,120
26	1,714,610	1,465,140	1,143,220	691,900	309,380	239,590
27	1,714,040	1,454,190	1,128,470	675,340	300,410	242,750
28	1,708,960	1,442,360	1,113,310	662,730	289,980	249,480
29	1,704,480	1,430,020	1,100,230	647,810	283,080	255,940
30	1,710,640	1,418,710	1,082,190	635,240	274,400	264,380
31	-	1,406,370	-	622,030	265,030	-

Monthly elevation and contents, water year October 1939 to September 1940

	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	4,316.08	252,050	-
Oct. 31	4,324.32	450,900	+198,850
Nov. 30	4,330.89	644,910	+194,010
Dec. 31	4,336.85	856,420	+211,510
Calendar year 1939	-	-	-627,040
Jan. 31	4,342.45	1,090,760	+234,340
Feb. 29	4,347.59	1,334,610	+243,850
Mar. 31	4,352.33	1,580,290	+245,680
Apr. 30	4,354.69	1,710,640	+130,350
May 31	4,349.02	1,406,370	-304,270
June 30	4,342.26	1,082,190	-324,180
July 31	4,330.18	622,030	-460,160
Aug. 31	4,316.68	265,030	-357,000
Sept.30	4,316.65	264,380	-650
Water year 1939-40	-	-	+12,330

Snake River at Neeley, Idaho

Location.- Water-stage recorder, lat. 42°45', long. 112°54', in sec. 31, T. 7 S., R. 31 E., half a mile below American Falls Dam. Datum of gage is 4,242.8 feet above mean sea level (river-profile survey). Records computed to show flow at former site in sec. 11, T. 8 S., R. 30 E., half a mile north of Neeley and 3 miles downstream from present gage site, by adding inflow between sites.

Records available.- March 1906 to September 1940.

Extremes.- Maximum discharge during year, 12,100 second-feet June 25 (gage height, 5.92 feet); minimum, 152 second-feet Sept. 25-26 (gage height, 0.79 foot).
1906-40: Maximum daily discharge, 48,400 second-feet June 20, 1918 (gage height, 13.5 feet, site and datum then in use); minimum, 124 second-feet several days during November and December 1932 (gage height, 0.50 foot).

Remarks.- Records excellent. Flow regulated by American Falls Reservoir (see p. 20) and other reservoirs, having a combined usable capacity of about 3,200,000 acre-feet. About 700,000 acres of land are irrigated by water diverted from river and its tributaries above station.

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

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 2 to Aug. 25, Sept. 16-30)

0.7	150	2.5	1,130	4.5	6,050
1.0	205	3.0	1,880	5.0	8,000
1.5	357	3.5	3,040	5.5	10,200
2.0	656	4.0	4,450	6.0	12,500

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,230	918	1,170	1,090	770	2,110	820	7,490	11,000	10,200	11,100	7,740
2	1,260	920	1,330	1,100	770	2,080	1,150	7,530	10,800	10,100	11,200	7,570
3	1,240	952	1,440	1,110	493	2,080	1,140	7,450	10,700	10,100	11,100	7,160
4	1,680	918	1,440	1,130	444	2,100	1,790	7,490	10,600	10,000	11,000	6,700
5	1,840	928	1,440	1,140	440	1,830	2,020	7,910	10,400	10,200	11,100	6,190
6	1,780	945	1,450	1,100	798	1,790	2,200	8,530	9,980	10,700	11,100	5,710
7	1,780	1,510	1,460	1,100	892	1,610	1,860	9,230	9,890	10,900	11,000	5,410
8	1,770	1,530	1,530	1,140	892	1,620	1,850	9,890	9,890	11,100	11,000	5,410
9	1,800	2,380	1,500	954	918	1,600	1,680	10,300	9,890	11,300	11,000	5,410
10	1,830	2,530	1,610	678	1,100	185	1,380	10,500	9,890	11,400	11,100	5,350
11	1,310	2,520	1,540	638	1,030	1,630	1,300	10,600	10,000	11,500	11,000	5,190
12	1,320	2,530	1,520	801	1,060	1,630	1,870	10,800	10,700	11,500	11,100	4,870
13	1,330	2,610	1,530	919	1,090	1,650	1,830	10,600	11,000	11,600	11,100	4,300
14	1,330	2,550	1,530	921	1,150	1,680	2,230	10,300	11,300	11,700	11,000	3,900
15	1,340	1,410	1,320	1,110	1,220	1,660	3,050	10,400	11,400	11,500	10,900	3,700
16	1,330	1,440	1,260	1,160	1,210	1,640	5,030	10,700	11,300	11,400	10,800	3,480
17	1,350	1,440	1,290	1,180	1,050	1,030	4,840	10,900	11,100	11,300	10,800	3,750
18	1,380	1,450	1,150	1,400	1,010	1,050	6,620	11,000	11,000	11,300	10,700	4,120
19	1,390	1,480	1,000	1,390	1,010	1,050	7,530	11,100	10,800	11,500	9,760	5,480
20	1,390	1,480	1,020	1,310	1,040	1,050	7,000	11,100	10,800	11,500	9,290	3,730
21	1,360	1,480	1,050	1,340	1,050	1,060	7,530	11,100	10,900	11,500	9,540	4,040
22	860	1,490	1,070	1,370	1,050	1,050	7,570	11,000	11,200	11,300	9,720	1,000
23	1,370	1,460	1,110	1,370	1,020	836	7,570	11,100	11,500	11,100	9,630	2,030
24	1,430	1,460	1,120	1,290	1,020	828	7,530	11,000	11,900	11,100	9,230	1,650
25	1,580	1,130	1,020	1,250	1,060	844	7,570	11,000	12,100	11,100	8,700	1,690
26	1,590	1,120	946	1,010	1,460	849	7,660	11,000	11,800	11,000	8,310	1,640
27	1,580	1,120	1,170	533	1,130	833	8,040	11,100	11,300	10,900	8,000	1,690
28	1,630	1,130	1,460	438	2,170	844	8,750	11,100	10,600	10,800	8,040	1,670
29	1,610	1,140	1,600	1,070	2,130	838	8,440	11,100	10,300	10,800	8,000	154
30	912	1,180	1,630	1,060	-	614	7,490	11,100	10,300	10,800	7,960	1,320
31	909	-	1,190	776	-	580	-	11,000	-	10,900	7,910	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	44,711	1,840	860	1,436	88,290
November	45,151	2,610	918	1,505	89,560
December	40,896	1,630	946	1,319	81,120
Calendar year 1939	2,333,545	15,000	265	6,393	4,629,000
January	32,878	1,400	438	1,061	65,210
February	30,477	2,170	440	1,051	60,450
March	39,651	2,110	185	1,279	78,650
April	135,340	8,750	820	4,511	268,400
May	315,420	11,100	7,450	10,170	625,600
June	324,340	12,100	9,890	10,810	643,300
July	342,100	11,700	10,000	11,040	678,500
August	312,180	11,200	7,910	10,070	619,200
September	122,054	7,740	154	4,068	242,100
Water year 1939-40	1,784,998	12,100	154	4,877	3,540,000

Note.- Stage-discharge relation affected by ice during nights Jan. 16-27.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Lake Walcott near Minidoka, Idaho

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

Drainage area.- Indeterminate because of large noncontributing areas. Figure previously published (15,700 square miles) did not include area of Mud Lake-Lost River Basin.

Records available.- April 1909 to September 1917 (gage heights only), October 1917 to September 1940.

Extremes.- Maximum contents during year, 96,630 acre-feet Apr. 22, 23, 26 (gage height, 45.12 feet); minimum, -900 acre-feet Sept. 30 (gage height, 35.90 feet).
1909-40: Maximum contents, 110,740 acre-feet Aug. 8, 1922 (gage height, 46.28 feet); minimum, -9,040 acre-feet Nov. 1, 1913 (gage height, 35.00 feet).

Remarks.- Reservoir is formed by rock-fill dam with concrete core; storage began in 1909. Capacity, 107,240 acre-feet between gage heights 36.00 feet (sill of power house penstock) and 46.00 feet (top of flashboards). Dead storage unknown but is a considerable amount. Gage read twice daily at 8 a.m. and 4:30 p.m. Contents as given herein are computed from mean gage heights; all available for release. Water is used for power development and irrigation on Minidoka project of Bureau of Reclamation.

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

Contents in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72,260	67,210	63,810	66,220	65,010	69,190	93,900	96,270	95,430	88,900	76,580	50,210
2	68,750	66,770	63,260	66,220	65,340	71,060	91,920	96,390	96,150	87,500	78,130	47,780
3	66,330	65,010	63,480	66,880	65,230	73,390	93,670	94,720	95,670	85,870	78,470	46,400
4	64,360	64,140	63,260	67,650	65,340	75,870	94,370	93,550	95,670	83,310	77,340	43,870
5	64,140	63,480	63,040	66,990	65,010	75,980	93,320	94,490	95,550	81,510	77,450	43,550
6	64,140	62,820	62,930	67,430	64,690	79,030	94,490	94,950	95,910	79,710	77,450	42,280
7	64,470	61,940	63,260	67,650	64,580	80,830	95,670	95,310	94,720	79,590	77,340	40,380
8	65,230	60,850	63,590	67,430	64,360	81,280	95,430	95,670	94,720	79,030	77,230	38,920
9	66,550	59,340	63,700	67,650	64,580	83,770	96,150	96,150	95,180	79,030	77,000	37,260
10	67,650	59,990	64,360	67,100	64,140	84,940	96,390	96,270	95,070	79,140	75,870	35,400
11	68,090	60,850	62,380	66,550	64,580	84,700	95,430	96,030	94,720	79,590	76,550	32,910
12	68,090	62,270	64,800	65,450	64,580	86,330	94,370	96,150	95,180	79,710	76,100	30,420
13	68,530	63,040	64,580	64,360	64,580	88,310	94,140	95,430	94,950	79,030	75,080	27,560
14	68,750	64,580	64,800	65,450	64,580	90,060	93,320	95,550	94,950	79,930	74,860	24,720
15	69,190	66,110	65,120	65,340	64,580	91,690	93,320	95,070	95,430	80,610	74,290	21,880
16	69,410	65,890	65,450	65,340	64,580	92,620	94,020	94,720	95,550	80,160	73,960	18,450
17	70,070	64,800	65,450	65,670	64,470	93,550	91,340	95,180	95,670	80,160	73,730	15,080
18	69,850	63,480	65,890	64,250	93,550	90,990	95,180	96,150	79,930	73,960	10,030	
19	69,630	62,380	65,560	66,330	63,810	93,550	94,490	94,950	95,790	79,710	73,960	12,700
20	69,410	61,500	64,030	66,550	63,700	93,550	93,670	94,950	93,440	80,610	72,380	15,480
21	69,300	60,850	64,580	66,770	63,810	93,440	96,270	95,430	93,900	80,830	70,290	16,070
22	68,970	60,630	64,800	66,880	63,590	93,440	96,630	95,180	92,620	80,830	69,300	17,660
23	68,420	61,280	64,800	66,990	63,590	93,790	96,630	95,070	93,440	80,610	68,420	15,080
24	68,310	61,830	64,030	66,990	63,700	94,250	95,910	94,950	93,550	79,930	67,760	13,700
26	67,540	63,150	64,580	66,990	63,480	94,250	95,670	94,020	94,370	79,480	66,660	11,910
26	67,430	63,260	64,580	67,210	63,480	94,370	96,630	94,020	93,320	80,040	64,360	10,030
27	66,550	63,480	64,360	66,770	63,920	94,250	96,150	94,370	93,550	79,140	62,380	5,910
28	66,550	64,030	64,580	65,670	64,360	94,600	95,430	94,950	93,200	79,710	59,880	4,200
29	66,770	64,140	64,690	64,800	66,550	94,490	94,950	95,070	92,160	79,480	57,950	2,000
30	68,090	63,700	65,340	64,900	-	94,950	96,510	95,430	89,710	79,710	55,260	-900
31	68,090	-	66,110	65,010	-	94,840	-	95,310	-	79,140	52,250	-

Monthly gage height and contents, water year October 1939 to September 1940

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	43.40	76,770	-
Oct. 31	42.62	68,090	-8,680
Nov. 30	42.22	63,700	-4,390
Dec. 31	42.44	66,110	+2,410
Calendar year 1939	-	-	-440
Jan. 31	42.34	65,010	-1,100
Feb. 29	42.48	66,550	+1,540
Mar. 31	44.97	94,840	+28,290
Apr. 30	45.11	96,510	+1,670
May 31	45.01	95,310	-1,200
June 30	44.53	89,710	-5,600
July 31	43.61	79,140	-10,570
Aug. 31	41.18	52,250	-26,890
Sept.30	35.90	-900	-53,150
Water year 1939-40	-	-	-77,670

Snake River near Minidoka, Idaho

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

Records available.- April 1910 to September 1940. August 1895 to December 1899 and May 1901 to December 1910 at site at Montgomery Ferry, 6 miles downstream.

Extremes.- Maximum discharge during year, 8,860 second-feet June 28 (gage height, 8.06 feet); minimum, 342 second-feet Nov. 6 (gage height, 2.48 feet).
1910-40: Maximum discharge, 45,900 second-feet June 21, 1918 (gage height, 16.02 feet); minimum, 59 second-feet Nov. 18, 1936 (gage height, 1.56 feet).

Remarks.- Records good. Flow regulated by American Falls Reservoir (see p. 20), Lake Walcott (see p. 23), and other reservoirs having a combined usable capacity of about 3,300,000 acre-feet, and greatly reduced by diversions just above station for irrigation on Minidoka project.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,520	567	1,160	1,300	921	1,090	963	6,220	7,960	8,230	8,170	7,310
2	2,330	947	1,430	1,200	949	1,080	1,140	6,270	7,980	8,200	8,420	6,900
3	1,950	1,090	1,570	1,170	978	1,060	1,240	6,190	8,060	8,230	8,360	6,820
4	1,660	1,120	1,600	1,190	970	1,090	1,440	5,940	8,090	8,280	8,280	6,530
5	1,430	1,100	1,580	1,220	907	1,180	1,830	5,760	8,010	8,310	8,120	6,160
6	1,240	1,150	1,410	1,300	1,040	1,110	1,620	5,980	7,740	8,360	8,060	5,860
7	1,080	1,410	1,430	1,370	1,240	935	1,660	6,400	7,880	8,420	8,060	5,580
8	963	1,890	1,410	1,220	1,190	787	1,660	6,770	7,900	8,420	8,040	5,660
9	894	2,120	1,400	1,360	1,170	775	1,680	7,150	7,660	8,390	8,120	5,780
10	829	1,930	1,430	1,340	1,200	775	1,660	7,420	7,580	8,390	8,250	5,940
11	775	1,950	1,460	1,290	1,250	727	1,710	7,580	7,520	8,580	8,200	5,760
12	682	1,710	1,520	1,180	1,250	769	1,600	7,820	7,660	8,420	8,090	5,320
13	682	1,690	1,500	1,300	1,270	793	1,580	7,740	7,930	8,470	8,150	5,130
14	671	1,370	1,410	1,250	1,320	811	1,790	7,520	8,060	8,550	8,170	5,220
15	660	1,220	1,350	1,180	1,400	880	2,040	7,390	8,150	8,470	8,230	4,800
16	660	1,290	1,270	1,180	1,440	970	4,950	7,660	8,150	8,340	8,170	5,080
17	698	1,820	1,270	1,180	1,420	1,110	5,180	7,770	7,900	8,250	8,060	5,010
18	835	1,760	1,250	1,210	1,380	1,100	4,620	7,820	7,800	8,170	7,820	4,710
19	887	1,690	1,440	1,260	1,350	1,090	5,420	7,980	7,770	8,150	7,770	4,360
20	894	1,630	1,270	1,310	1,320	1,110	5,810	8,060	8,120	8,160	7,610	3,220
21	887	1,490	1,230	1,210	1,310	1,220	6,580	8,060	7,880	8,170	7,520	2,450
22	874	1,120	1,270	1,350	1,300	1,020	6,660	8,010	8,150	8,120	7,520	2,200
23	848	1,030	1,330	1,440	1,300	848	6,720	8,120	8,200	8,120	7,550	2,200
24	874	907	1,260	1,370	1,280	799	6,690	7,900	8,310	8,090	7,520	2,170
25	1,040	787	1,190	1,320	1,270	745	6,370	7,980	8,580	8,010	7,500	1,960
26	1,120	751	1,190	1,160	1,330	763	6,190	8,060	8,720	8,010	7,170	2,310
27	1,120	745	1,210	1,230	1,410	775	6,550	8,010	8,670	8,010	7,040	2,700
28	1,140	848	1,350	1,190	1,400	763	7,420	7,960	8,500	7,980	7,340	2,570
29	713	1,020	1,540	1,140	1,240	757	7,530	7,960	8,120	7,980	7,550	1,760
30	573	1,050	1,510	1,110	-	757	6,370	7,930	8,230	7,980	7,610	1,510
31	567	-	1,370	1,030	-	861	-	8,010	-	8,120	7,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	32,116	2,520	567	1,036	63,700
November	39,202	2,120	567	1,377	77,760
December	42,610	1,600	1,160	1,375	84,520
Calendar year 1939	1,922,948	12,500	567	5,268	3,814,000
January	38,560	1,440	1,030	1,244	76,480
February	35,805	1,440	907	1,235	71,020
March	28,550	1,220	727	921	56,630
April	116,673	7,530	963	3,889	231,400
May	229,440	8,120	5,760	7,401	455,100
June	241,300	8,720	7,520	8,043	478,600
July	255,370	8,580	7,980	8,238	506,500
August	243,970	8,420	7,040	7,870	483,900
September	132,980	7,310	1,510	4,433	263,800
Water year 1939-40	1,436,576	8,720	567	3,925	2,849,000

Note.- Stage-discharge relation affected by ice Jan. 18-28 and by rank acquatic vegetation July 17 to Aug. 13; discharge computed on basis of power plant records at Minidoka Dam.

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Snake River near Kimberly, Idaho

Location.- Water-stage recorder, lat. 42°36', long. 114°22', in NW¼ sec. 4, T. 10 S., R. 18 E., 1,200 feet downstream from Twin Falls power plant, 2¼ miles upstream from Shoshone Falls, and 4 miles north of Kimberly.

Records available.- July 1923 to September 1940.

Average discharge.- 17 years, 2,222 second-feet.

Extremes.- Maximum discharge during year, 4,920 second-feet Apr. 30 (gage height, 11.35 feet); minimum discharge recorded, 28 second-feet June 30 (gage height, 1.28 feet). 1923-40: Maximum discharge, 27,200 second-feet July 4, 1927 (gage height, 14.76 feet, site and datum then in use), from rating curve extended above 20,000 second-feet; minimum, undetermined leakage through Twin Falls power plant at times since Nov. 23, 1935.

Remarks.- Records good. Practically entire flow is diverted at Milner during irrigation season; no diversion between Milner and Kimberly. Flow regulated by Twin Falls power plant.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

3.4	225	4.6	440	6.0	930	7.5	1,730	10.0	3,430
3.8	289	5.0	545	6.5	1,180	8.0	2,030	11.0	4,480
4.2	361	5.5	715	7.0	1,450	9.0	2,690		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	791	894	935	854	791	804		2,240	343	373	411	680
2	800	849	960	836	719	a700		1,930	328	357	452	669
3	800	818	930	867	704	592	a600	1,340	335	361	408	700
4	818	858	926	858	667	599		1,020	358	340	439	696
5	791	822	921	916	751	616		434	372	402	459	667
6	803	867	912	903	985	611	542	390	370	386	414	676
7	829	867	930	880	995	556	611	322	372	358	457	677
8	806	894	912	903	1,000	633	595	333	390	380	485	676
9	807	940	912	945	1,000	628	596	347	385	373	434	678
10	794	858	916	885	1,040	601	562	337	369	449	398	699
11	719	970	926	885	1,020	607	530	334	368	375	477	687
12	781	912	890	880	1,000	622	337	337	382	382	396	697
13	783	903	894	880	1,010	577	349	329	371	379	444	707
14	811	908	894	727	1,050	584	350	308	362	385	448	685
15	776	950	903	822	1,060	607	510	308	372	374	429	688
16	792	890		800	1,080	608	939	312	335	384	459	674
17	790	903		771	1,060	576	3,910	318	380	413	477	672
18	814	903		831	1,040	610	2,370	314	363	399	438	682
19	799	926	a800	779	1,030	599	2,360	271	364	423	453	684
20	804	916		755	1,020	622	2,630	381	367	387	446	715
21	804	912			935	613	3,220	336	376	439	471	698
22	812	890	766		876	601	3,760	326	370	388	468	672
23	807	908	804	a800	926	487	3,160	333	383	420	601	685
24	812	903	836		872	384	3,060	325	364	403	616	692
25	818	903	768		840	348	2,950	331	368	447	570	666
26	862	916	776	800	826	368	2,730	339	362	412	653	667
27	862	935	734	808	826	336	3,100	343	368	456	664	742
28	858	872	723	818	804	340	2,630	338	378	435	660	740
29	804	926	831	813	822	343	3,220	393	371	393	687	678
30	840	955	783	795	-	401	3,320	290	381	425	666	861
31	840	-	858	791	-	305	-	364	-	423	681	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	25,027	862	719	807	49,640
November	26,968	955	818	899	53,490
December	26,440	960	723	853	52,440
Calendar year 1939	681,141	10,500	153	1,866	1,351,000
January	25,802	945	727	832	51,180
February	26,749	1,080	667	922	53,060
March	16,878	804	305	544	33,480
April	51,341	3,760	337	1,711	101,800
May	15,629	2,240	271	504	31,000
June	11,007	390	328	367	21,830
July	12,321	456	340	397	24,440
August	15,561	687	396	502	30,860
September	20,810	861	666	694	41,280
Water year 1939-40	274,533	3,760	271	750	544,500

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

Snake River at Milner, Idaho

Location.- Water-stage recorder, lat. 42°32', long. 114°01', in sec. 29, T. 10 S., R. 21. E., at Milner, a quarter of a mile downstream from Milner Dam.

Records available.- May 1909 to September 1940.

Extremes.- Maximum discharge during year, 4,230 second-feet April 21 (gage height, 8.65 feet); minimum, 4 second-feet March 24-26 (gage height, 1.27 feet).
1909-40: Maximum discharge, 44,400 second-feet June 12, 1909 (gage height, 20.10 feet, site and datum then in use); minimum, 2 second-feet Mar. 17-28, 1936 (gage height, 1.18 feet).

Remarks.- Records good. Flow regulated by American Falls Reservoir (see p. 20), Lake Walcott (see p. 23) and other reservoirs having a combined usable capacity of about 3,300,000 acre-feet, and greatly reduced by diversions at Milner Dam for irrigation. About 1,300,000 acres of land irrigated by diversions from river and its tributaries above station. Flow includes some stored water released for use below station by Idaho Power Co.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	322	392	472	423	374	260	255	1,690	9	9	10	214
2	325	392	480	426	348	265	255	1,250	9	9	10	214
3	325	392	476	420	348	265	260	612	9	9	11	212
4	322	392	472	472	348	263	252	182	9	9	11	212
5	322	395	476	492	404	260	255	34	9	9	11	212
6	322	395	476	472	650	271	258	25	12	9	11	212
7	322	426	472	468	640	276	258	17	11	9	10	214
8	322	453	476	468	645	278	255	16	8	10	10	212
9	314	453	476	468	640	276	252	15	9	9	10	212
10	319	460	476	468	558	268	207	13	9	9	10	212
11	322	457	464	472	572	268	31	11	8	10	10	212
12	322	453	476	446	645	268	31	11	8	12	11	212
13	322	453	468	426	640	268	30	10	8	10	11	212
14	322	453	453	426	640	268	29	11	8	10	11	209
15	322	453	453	420	645	268	66	9	8	12	11	201
16	325	453	392	420	650	273	2,400	9	8	15	11	199
17	325	453	356	423	645	278	3,400	9	10	15	12	199
18	325	453	359	417	626	278	1,520	9	10	12	12	203
19	328	453	362	417	621	278	2,430	9	11	11	14	207
20	328	453	359	420	549	278	2,070	9	8	9	15	199
21	330	453	365	423	516	278	3,430	9	8	9	20	201
22	328	450	429	426	516	205	3,230	9	8	9	14	196
23	325	450	429	426	516	8	2,900	9	8	9	212	196
24	325	450	401	420	480	5	2,670	9	8	10	216	194
25	374	457	333	426	453	4	2,490	9	8	10	216	201
26	395	457	336	426	453	5	2,260	9	8	10	216	203
27	398	450	371	417	453	5	2,490	9	8	10	214	235
28	392	460	426	417	450	11	2,550	9	10	10	221	255
29	392	476	423	423	398	5	2,870	9	9	10	218	255
30	392	476	429	423	-	26	2,550	10	8	10	216	255
31	392	-	426	423	-	190	-	9	-	10	216	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	10,499	398	314	339	20,820
November	13,263	476	392	442	26,310
December	13,262	480	333	428	26,300
Calendar year 1939	529,206	9,730	5	1,450	1,050,000
January	13,514	492	417	436	26,800
February	15,423	650	348	532	30,590
March	6,149	278	4	198	12,200
April	41,954	3,430	29	1,398	83,190
May	4,051	1,690	9	131	8,030
June	264	12	8	8.8	524
July	314	15	9	10.1	623
August	2,201	221	10	71.0	4,370
September	6,370	255	194	212	12,630
Water year 1939-40	127,264	3,430	4	348	252,400

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Snake River near Hagerman, Idaho

Location.- Water-stage recorder, lat. 42°46', long. 114°53', in NW¼ sec. 1, T. 8 S., R. 13 E., just upstream from Upper Salmon Falls, an eighth of a mile upstream from Owsley Bridge, 4 miles south of Hagerman, and 11 miles upstream from Big Wood River. Datum of gage is 2,873.46 feet above mean sea level.

Records available.- August 1912 to June 1917, July 1919 to September 1940.

Average discharge.- 24 years (1912-15, 1919-40), 8,012 second-feet.

Extremes.- Maximum discharge during year, 9,020 second-feet Apr. 30 (gage height, 5.38 feet), from rating curve extended above 8,000 second-feet on basis of shape of previous curves; minimum, about 4,600 second-feet June 1 (gage height, 4.33 feet).

1912-17, 1919-40: Maximum discharge, 35,100 second-feet June 10, 1914; maximum gage height, 9.12 feet June 7, 1936; minimum discharge, 4,030 second-feet July 15 to Aug. 2, 1915 (gage height, 3.1 feet). Data in 1916 and 1917 insufficient for determination of maximum and minimum discharge.

Remarks.- Records good. Practically entire flow of river diverted at Milner during irrigation season; only minor diversions below Milner.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,540	6,260	6,300	6,260	5,900	5,820	5,100	7,580	4,860	5,100	5,620	6,220
2	6,740	6,140	6,300	6,380	5,900	5,740	5,300	6,860	4,980	5,060	5,620	6,300
3	6,780	6,020	6,300	6,340	5,900	5,660	5,380	6,460	5,060	5,060	5,580	6,420
4	6,860	5,980	6,300	6,300	5,940	5,580	5,340	5,900	5,100	5,100	5,580	6,460
5	6,860	5,980	6,260	6,220	5,860	5,540	5,340	5,740	5,260	5,140	5,620	6,500
6	6,740	6,220	6,260	6,100	5,860	5,580	5,300	5,340	5,260	5,140	5,580	6,500
7	6,700	6,220	6,300	6,100	6,060	5,580	5,220	5,020	5,260	5,140	5,620	6,460
8	6,700	6,180	6,260	6,180	6,060	5,540	5,260	4,900	5,260	5,180	5,580	6,460
9	6,580	6,220	6,260	6,300	6,060	5,540	5,340	4,820	5,260	5,180	5,580	6,500
10	6,540	6,260	6,260	6,260	6,060	5,580	5,380	4,820	5,300	5,140	5,620	6,540
11	6,460	6,220	6,260	6,100	6,100	5,580	5,380	4,900	5,260	5,180	5,660	6,540
12	6,380	6,260	6,220	6,100	6,060	5,540	5,220	4,900	5,140	5,180	5,620	6,620
13	6,300	6,220	6,180	a5,900	6,060	5,500	5,060	4,940	5,100	5,180	5,660	6,700
14	6,300	6,140	6,180	5,700	6,100	5,460	5,020	4,860	5,140	5,220	5,660	6,700
15	6,300	6,100	6,220	5,660	6,100	5,420	5,180	4,820	5,140	5,260	5,660	6,700
16	6,260	6,100	6,260	5,700	6,060	5,420	5,540	4,740	5,180	5,300	5,660	6,740
17	6,220	6,140	6,220	5,900	6,100	5,420	6,740	4,740	5,180	5,340	5,700	6,780
18	6,260	6,140	6,140	5,900	6,100	5,380	8,040	4,740	5,060	5,380	5,740	6,740
19	6,220	6,180	6,100	5,700	6,100	5,420	6,740	4,740	5,100	5,420	5,780	6,980
20	6,180	6,220	6,100	5,740	6,100	5,380	7,490	4,740	5,020	5,420	5,740	7,020
21	6,140	6,260	6,100	5,820	6,020	5,380	7,410	4,740	4,980	5,460	5,780	6,940
22	6,100	6,300	6,060	5,860	5,980	5,380	8,680	4,780	4,980	5,500	5,820	6,780
23	6,140	6,300	6,100	5,860	6,020	5,300	8,130	4,780	4,980	5,500	5,860	6,620
24	6,140	a6,340	6,140	5,940	5,940	5,180	7,790	4,780	5,020	5,500	5,940	6,740
25	6,180	6,380	5,980	5,860	5,900	5,140	7,660	4,820	5,020	5,540	6,060	6,740
26	6,220	6,340	5,820	5,860	5,860	5,100	7,700	4,900	5,020	5,580	6,020	6,740
27	6,260	6,380	5,940	6,100	5,900	5,140	7,880	4,900	5,020	5,660	6,060	6,780
28	6,220	6,300	5,980	6,100	5,900	5,020	7,750	4,860	5,060	5,660	6,140	6,700
29	6,300	6,260	5,940	5,980	5,820	4,900	8,090	4,900	5,020	5,700	6,140	6,780
30	6,220	6,300	6,020	5,940	-	4,860	8,470	5,140	5,060	5,740	6,180	6,780
31	6,260	-	6,140	5,900	-	4,860	-	4,860	-	5,620	6,220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	198,100	6,860	6,100	6,390	392,900
November	186,360	6,380	5,980	6,212	369,600
December	190,900	6,300	5,820	6,158	378,600
Calendar year 1939	2,552,020	14,900	4,780	6,992	5,062,000
January	186,060	6,380	5,660	6,002	369,000
February	173,820	6,100	5,820	5,994	344,800
March	166,940	5,820	4,860	5,385	331,100
April	192,930	8,680	5,020	6,431	382,700
May	159,020	7,580	4,740	5,130	315,400
June	153,080	5,300	4,860	5,103	303,600
July	165,580	5,740	5,060	5,341	328,400
August	179,100	6,220	5,580	5,777	355,200
September	199,480	7,020	6,220	6,649	395,700
Water year 1939-40	2,151,370	8,680	4,740	5,878	4,267,000

a No gage-height record; discharge interpolated.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Snake River near Twin Falls, Idaho

Location.- Water-stage recorder, lat. 42°36', long. 114°29', in SW¼SW¼ sec. 33, T. 9 S., R. 17 E., at Perrine Bridge, 200 feet upstream from outlet of Blue Lakes, 4 miles north of the city of Twin Falls, and 4 miles downstream from Shoshone Falls.

Records available.- September 1911 to June 1917, May 1919 to September 1940.

Average discharge.- 26 years (1911-16, 1919-40), 3,787 second-feet.

Extremes.- Maximum discharge during year, 5,280 second-feet Apr. 30 (gage height, 5.74 feet); minimum, 308 second-feet (regulated) May 31 (gage height, 1.81 feet).
1911-17, 1919-40: Maximum discharge, 32,200 second-feet June 10, 1914 (gage height, 13.3 feet), from rating curve extended above 29,000 second-feet; minimum, 250 second-feet (estimated) Apr. 16, 1936.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,070		a1,140	1,020	910	944	544	2,360	505	544	620	862
2	1,080			1,020	910	838	748	2,010	554	544	602	878
3	1,080			1,030	902	770	734	1,580	544	544	614	886
4	1,090		1,120	1,030	854	741	727	1,170	538	544	614	886
5	1,080		1,120	1,070	800	748	770	944	578	560	596	886
6	1,070		1,120	1,070	952	748	652	544	578	560	626	878
7	1,080		1,120	1,030	1,080	778	633	490	578	554	590	870
8	1,080		1,110	1,060	1,080	734	720	446	590	560	578	870
9	1,080		1,110	1,090	1,080	734	727	450	596	566	633	870
10			1,100	1,070	1,100	734	727	470	646	560	633	870
11			1,120	1,040	1,120	748	678	460	549	532	578	878
12			1,080	1,040	1,090	755	510	470	538	549	633	886
13			1,070	1,010	1,080	734	485	475	578	578	578	902
14			1,080	910	1,110	727	480	460	572	554	626	918
15			1,080	910	1,150	699	538	460	572	560	584	878
16		a1,100	1,080		1,130	713	800	460	566	572	620	918
17			1,050		1,140	734	3,860	465	527		640	902
18			1,000		1,130	713	2,740	470	572		640	910
19	a1,060		978		1,100	727	2,270	465	560		596	918
20			978	a920	1,100	727	2,980	460	544		626	918
21			978		1,060	734	3,270	465	544		626	944
22			970		1,000	720	4,480	480	549	a590	640	902
23			970		1,040	554	3,500	475	544		706	902
24			1,020		1,000	560	3,340	470	560		846	918
25			944		995	500	3,190	485	544		815	778
26			944	927	961	485	2,950	500	549		785	978
27			995	952	970	500	3,680	505	544		846	927
28			936	952	944	442	2,790	505	544		838	918
29			944	936	952	455	3,520	584	538		838	918
30			952	936	-	460	3,850	626	538		870	894
31		-	1,000	918	-	490	-	382	-	590	870	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	33,030	-	-	1,065	65,510
November	33,000	-	-	1,100	65,450
December	32,389	-	936	1,045	64,240
Calendar year 1939	764,128	10,800	414	2,094	1,516,000
January	30,221	1,090	-	975	59,940
February	29,740	1,150	800	1,026	58,990
March	20,946	944	442	676	41,550
April	56,893	4,480	480	1,896	112,800
May	20,586	2,360	382	664	40,830
June	16,739	646	505	558	33,200
July	17,731	-	532	572	35,170
August	20,907	870	578	674	41,470
September	26,863	978	862	895	53,280
Water year 1939-40	339,045	4,480	382	926	672,400

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Snake River below Lower Salmon Falls, near Hagerman, Idaho

Location.- Water-stage recorder, lat. 42°51'36", long. 114°54'42", in lot 3, sec. 2, T. 7 S., R. 13 E., half a mile downstream from Lower Salmon Falls power plant, 1 mile upstream from Big Wood (Malad) River, and 3½ miles north of Hagerman.

Records available.- November 1937 to September 1940.

Extremes.- Maximum discharge during year, 9,580 second-feet Apr. 30 (gage height, 8.49 feet); minimum, 3,840 second-feet (regulated) Aug. 15 (gage height, 5.45 feet), from rating curve extended below 5,500 second-feet.

1937-40: Maximum discharge, 23,800 second-feet May 6, 1938 (gage height, 13.93 feet); minimum, about 3,800 second-feet (regulated) Mar. 28, 29, 1938 (gage height, 5.40 feet), from rating curve extended below 5,500 second-feet.

Remarks.- Records excellent except those for period of no gage-height record, which are good. Flow regulated by Lower Salmon Falls power plant. Practically entire flow at Milner diverted during irrigation season; only minor diversions below Milner.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,220		7,020	6,960	6,580	6,340	5,560	8,340	5,380	5,620	6,140	6,860
2	7,400		7,000	7,100	6,540	6,260	5,680	7,460	5,540	5,600	6,100	6,920
3	7,460		6,980	7,060	6,560	6,180	5,580	7,000	5,660	5,600	6,100	7,000
4	7,560		6,980	7,020	6,600	6,080	5,540	6,420	5,660	5,640	6,120	7,060
5	7,540		6,960	6,900	6,520	5,960	5,500	6,240	5,520	5,640	6,160	7,120
6	7,440		7,000	6,820	6,520	6,060	5,500	5,860	5,580	5,640	6,160	7,140
7	7,380		6,980	6,800	6,680	6,060	5,700	5,440	5,520	5,620	6,180	7,080
8	7,380		6,980	6,920	6,680	6,040	5,700	5,260	5,860	5,640	6,160	7,080
9	7,260		6,980	7,020	6,700	6,040	5,760	5,180	5,940	5,620	6,120	7,180
10	7,260		6,960	6,960	6,660	6,040	5,500	5,180	5,960	5,660	6,160	7,200
11	7,160		6,860	6,800	6,660	6,020	5,800	5,220	5,940	5,660	6,160	7,200
12	7,140		6,940	6,780	6,680	6,000	5,660	5,220	5,800	5,660	6,120	7,220
13	7,080		6,860	6,580	6,680	6,000	5,460	5,260	5,740	5,680	6,140	7,280
14	7,060	a6,900	6,900	6,420	6,700	5,960	5,380	5,200	5,740	5,720	6,140	7,340
15	7,060		6,940	6,340	6,660	5,960	5,520	5,160	5,760	5,780	6,140	7,360
16	7,020		6,940	6,400	6,640	5,920	5,900	5,130	5,740	5,800	6,160	7,360
17	7,000		6,880	6,600	6,680	5,920	6,700	5,110	5,760	5,860	6,220	7,400
18	6,980		6,820	6,600	6,580	5,920	8,660	5,160	5,640	5,900	6,260	7,400
19	6,980		6,800	6,420	6,620	5,900	7,320	5,180	5,640	5,920	6,240	7,640
20	6,940		6,800	6,420	6,600	5,880	7,740	5,160	5,520	5,940	6,220	7,660
21	6,940		6,780	6,520	6,600	5,880	7,820	5,200	5,580	5,980	6,300	7,600
22	6,920		6,780	6,560	6,540	5,960	9,040	5,260	5,500	6,040	6,340	7,460
23	6,920		6,800	6,520	6,580	5,920	8,640	5,260	5,560	6,060	6,380	7,240
24			6,820	6,620	6,520	5,640	8,260	5,300	5,540	6,060	6,500	7,380
25			6,680	6,540	6,460	5,600	8,100	5,260	5,540	6,100	6,660	7,420
26		a6,950	6,560	6,540	6,420	5,580	8,120	5,300	5,520	6,100	6,700	7,360
27			6,620	6,800	6,440	5,600	8,160	5,480	5,520	6,180	6,700	7,440
28			6,720	6,780	6,440	5,540	8,340	5,440	5,560	6,220	6,740	7,360
29		6,980	6,660	6,660	6,340	5,360	8,460	5,440	5,560	6,300	6,760	7,440
30		6,980	6,720	6,620	-	5,360	8,940	5,640	5,540	6,280	6,800	7,400
31		-	6,880	6,600	-	5,320	-	5,580	-	6,180	6,840	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	220,700	7,560	-	7,119	437,800
November	207,160	-	-	6,905	410,900
December	212,600	7,020	6,560	6,858	421,700
Calendar year 1939	2,771,040	15,400	5,320	7,592	5,496,000
January	207,680	7,100	6,340	6,699	411,900
February	190,880	6,700	6,340	6,582	378,600
March	182,100	6,340	5,320	5,874	361,200
April	205,540	9,040	5,380	6,851	407,700
May	173,340	8,340	5,110	5,592	343,800
June	170,220	5,960	5,380	5,674	337,600
July	181,700	6,300	5,600	5,861	360,400
August	195,920	6,840	6,100	6,320	388,600
September	218,600	7,660	6,860	7,287	433,600
Water year 1939-40	2,366,440	9,040	5,110	6,466	4,694,000

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Snake River at King Hill, Idaho

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

Records available.- May 1909 to September 1940.

Average discharge.- 31 years, 10,640 second-feet.

Extremes.- Maximum discharge during year, 11,300 second-feet May 1 (gage height, 7.50 feet); minimum, 6,120 second-feet May 30 (gage height, 5.46 feet).
1909-40: Maximum discharge observed, 47,200 second-feet June 22, 1918 (gage height, 16.3 feet), from rating curve extended above 30,000 second-feet; minimum observed, 4,760 second-feet July 7-9, Aug. 15, 16, 1910 (gage height, 4.5 feet).

Remarks.- Records excellent. Practically entire flow at Milner diverted during irrigation season, so that flow at King Hill is derived largely from springs and seepage entering below Milner.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,400	8,480	8,510	8,380	8,000	8,640	7,660	10,500	6,440	6,660	7,200	7,800
2	8,710	8,400	8,510	8,560	7,980	8,300	7,540	9,130	6,600	6,660	7,150	7,860
3	8,690	8,330	8,480	8,640	7,980	8,000	7,540	8,660	6,710	6,620	7,130	7,980
4	8,900	8,260	8,480	8,510	8,100	7,800	7,470	7,980	6,730	6,640	7,150	8,080
5	9,100	8,230	8,430	8,460	8,060	7,710	7,390	7,610	6,870	6,800	7,180	8,130
6	9,000	8,360	8,430	8,280	8,080	7,660	7,300	7,490	6,960	6,730	7,180	8,180
7	8,950	8,460	8,430	8,200	8,460	7,610	7,130	6,900	6,940	6,760	7,230	8,230
8	8,950	8,400	8,430	8,300	8,360	7,860	7,150	6,640	6,960	6,760	7,180	8,230
9	8,820	8,400	8,430	8,510	8,300	7,860	7,200	6,440	7,010	6,760	7,150	8,230
10	8,770	8,460	8,380	8,510	8,330	7,710	7,230	6,390	7,060	6,760	7,200	8,260
11	8,660	8,460	8,380	8,330	8,360	7,610	7,200	6,460	7,060	6,760	7,200	8,260
12	8,610	8,480	8,330	8,260	8,130	7,540	7,110	6,440	6,940	6,780	7,200	8,280
13	8,530	8,480	8,330	8,030	8,030	7,470	6,870	6,440	7,180	6,800	7,250	8,480
14	8,460	8,430	8,380	7,730	8,130	7,440	6,730	6,440	7,060	6,830	7,230	8,460
15	8,460	8,360	8,380	7,660	8,160	7,470	6,830	6,390	6,920	6,870	7,270	8,530
16	8,480	8,360	8,400	7,680	8,030	7,560	7,350	6,390	6,760	6,920	7,110	8,530
17	8,460	8,360	8,400	7,900	8,030	7,590	7,760	6,370	6,800	6,940	7,180	8,610
18	8,460	8,380	8,300	7,930	8,060	7,590	10,200	6,390	6,660	6,990	7,230	8,640
19	8,400	8,380	8,230	7,760	8,030	7,510	8,900	6,390	6,620	7,010	7,250	8,840
20	8,380	8,430	8,280	7,730	7,980	7,510	8,870	6,440	6,600	7,060	7,250	8,970
21	8,330	8,510	8,300	7,830	7,930	7,540	9,230	6,440	6,570	6,960	7,300	9,000
22	8,300	8,640	8,260	7,880	7,960	7,470	10,200	6,460	6,570	7,030	7,370	8,920
23	8,300	8,660	8,280	7,860	8,030	7,390	10,300	6,480	6,550	7,250	7,420	8,610
24	8,330	8,660	8,360	7,960	7,980	7,180	9,660	6,460	6,550	7,130	7,590	8,710
25	8,380	8,640	8,200	7,960	7,930	7,180	9,450	6,460	6,570	7,110	7,680	8,820
26	8,400	8,530	8,000	7,930	8,080	7,150	9,610	6,460	6,640	7,110	7,730	8,690
27	8,430	8,560	8,030	8,130	9,000	7,490	9,690	6,570	6,550	7,250	7,730	8,870
28	8,430	8,530	8,160	8,230	10,300	7,370	10,300	6,570	6,550	7,270	7,710	8,820
29	8,560	8,480	8,080	8,080	9,720	7,010	9,910	6,570	6,620	7,350	7,350	8,840
30	8,510	8,480	8,100	8,060	-	7,010	10,600	6,600	6,620	7,350	7,800	8,870
31	8,480	-	8,260	8,030	-	7,300	-	6,850	-	7,270	7,830	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	265,640	9,100	8,300	8,569	526,900
November	253,590	8,660	8,230	8,453	503,000
December	257,950	8,510	8,000	8,321	511,600
Calendar year 1939	3,322,270	17,400	6,480	9,102	6,590,000
January	251,310	8,640	7,660	8,107	498,500
February	239,520	10,300	7,930	8,259	475,100
March	234,530	8,640	7,010	7,565	465,200
April	250,380	10,600	6,730	8,346	496,600
May	213,810	10,500	6,370	6,897	424,100
June	202,670	7,180	6,440	6,756	402,000
July	215,190	7,350	6,620	6,942	426,800
August	227,810	7,830	7,110	7,349	451,900
September	254,730	9,000	7,800	8,491	505,200
Water year 1939-40	2,867,130	10,600	6,370	7,834	5,687,000

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Snake River near Murphy, Idaho

Location.- Water-stage recorder, lat. 43°18', long. 116°26', in NE¼ sec. 35, T. 1 S., R. 1 W., 4¼ miles downstream from Swan Falls power plant and 7⅛ miles northeast of Murphy.

Drainage area.- 41,900 square miles.

Records available.- August to October 1912, August 1913 to September 1940.

Average discharge.- 27 years (1913-40), 10,680 second-feet.

Extremes.- Maximum discharge during year, 12,000 second-feet Feb. 29 (gage height, 5.47 feet); minimum, 5,180 second-feet July 4 (gage height, 3.07 feet).
1912-40: Maximum discharge, 47,300 second-feet June 22, 1918 (gage height, 13.95 feet, site and datum then in use); minimum observed, 3,950 second-feet (discharge measurement) July 20, 1934, when stage was below intake pipe.

Remarks.- Records excellent. Large diurnal fluctuations of short duration are caused by operation of gates and power plant at dam. Several diversions by pumping between this station and station at King Hill.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,430	8,690	8,780	8,600	8,400	10,800	8,200	10,900	7,550	6,840	7,410	7,860
2	8,460	8,750	8,810	8,690	8,490	9,720	8,720	11,100	7,410	6,760	7,280	7,950
3	8,840	8,660	8,840	8,900	8,460	9,360	8,630	9,600	7,220	6,870	7,280	7,890
4	8,900	8,630	8,660	8,950	8,460	9,040	8,490	9,130	7,530	6,790	7,300	8,110
5	8,980	8,580	8,780	8,900	8,580	8,780	8,460	8,780	7,500	6,840	7,170	8,030
6	9,180	8,490	8,810	8,750	8,520	8,600	8,370	8,200	7,610	6,740	7,330	8,140
7	9,210	8,660	8,750	8,690	8,580	8,520	8,200	8,230	7,810	6,900	7,220	8,170
8	8,980	8,810	8,660	8,600	8,870	8,430	8,170	7,810	7,720	6,900	7,280	8,320
9	9,160	8,690	8,690	8,630	8,780	8,630	8,060	7,470	7,690	6,840	7,300	8,320
10	8,950	8,630	8,660	8,870	8,600	8,690	8,110	7,200	7,890	6,820	7,220	8,260
11	8,900	8,720	8,580	8,900	8,720	8,580	8,200	7,300	7,780	6,900	7,220	8,430
12	8,870	8,720	8,580	8,720	8,810	8,520	8,110	7,470	7,690	6,870	7,250	8,260
13	8,840	8,780	8,630	8,550	8,720	8,340	8,140	7,500	7,500	7,110	7,200	8,750
14	8,720	8,780	8,550	8,520	8,630	8,110	7,890	7,610	7,670	6,900	7,250	8,660
15	8,690	8,690	8,490	8,260	8,630	8,230	7,610	7,670	7,530	7,090	7,220	8,840
16	8,690	8,660	8,580	7,980	8,750	8,090	8,060	7,720	7,410	7,090	7,280	8,950
17	8,460	8,600	8,690	8,140	8,750	8,140	8,320	7,500	7,300	7,090	7,140	9,040
18	8,430	8,600	8,490	8,260	8,550	8,370	8,580	7,530	7,200	7,110	7,330	8,810
19	8,460	8,600	8,550	8,290	8,660	8,320	10,700	7,530	7,030	7,030	7,280	8,900
20	8,460	8,660	8,460	8,200	8,600	8,230	9,570	7,500	6,950	7,140	7,440	9,040
21	8,400	8,660	8,400	7,980	8,630	8,320	9,450	7,300	6,840	7,030	7,300	9,040
22	8,490	8,840	8,490	8,230	8,520	8,290	9,930	7,410	6,740	7,110	7,330	9,160
23	8,430	8,950	8,490	8,230	8,520	8,320	10,800	7,390	6,950	7,090	7,390	9,070
24	8,400	8,980	8,490	8,260	8,630	8,260	11,000	7,280	6,790	7,060	7,440	8,840
25	8,520	8,950	8,490	8,260	8,660	8,230	10,300	7,330	6,790	a7,060	7,550	8,870
26	8,520	8,950	8,520	8,430	8,520	8,060	10,000	7,330	6,760	7,060	7,690	8,950
27	8,580	8,900	8,200	8,320	8,840	8,140	10,100	7,200	6,680	7,140	7,720	8,870
28	8,630	8,840	8,260	8,520	10,000	8,600	10,400	7,500	6,760	7,280	7,640	8,900
29	8,690	8,780	8,340	8,580	11,300	8,550	10,800	7,530	6,710	7,390	7,690	9,010
30	8,780	8,840	8,340	8,580	-	8,200	10,200	7,410	6,840	7,440	7,810	8,950
31	8,750	-	8,400	8,460	-	8,110	-	7,470	-	7,530	7,890	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	269,800	9,210	8,400	8,703	535,100
November	262,090	8,980	8,490	8,736	519,800
December	265,460	8,840	8,200	8,563	526,500
Calendar year 1939	3,461,050	19,000	7,090	9,482	6,865,000
January	263,250	8,950	7,980	8,492	522,100
February	254,100	11,300	8,400	8,765	504,200
March	264,580	10,800	8,060	8,535	524,800
April	271,570	11,000	7,610	9,052	538,700
May	244,900	11,100	7,200	7,900	485,800
June	217,850	7,890	6,680	7,262	432,100
July	217,820	7,530	6,740	7,026	432,000
August	228,850	7,890	7,140	7,382	453,900
September	258,390	9,160	7,860	8,613	512,500
Water year 1939-40	3,018,740	11,300	6,680	8,248	5,988,000

a No gage-height record; discharge interpolated.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Snake River at Weiser, Idaho

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

Records available.- October 1910 to September 1940. Fragmentary gage-height record obtained by Weather Bureau since 1895.

Average discharge.- 29 years (1911-40), 17,370 second-feet.

Extremes.- Maximum discharge during year, 49,600 second-feet Apr. 1 (gage height, 9.79 feet); minimum, 7,780 second-feet July 13, 14 (gage height, 2.34 feet).
1910-40: Maximum discharge observed, 83,100 second-feet May 23, 1921 (gage height, 13.60 feet); minimum observed, 5,100 second-feet Aug. 5, 1924 (gage height, 1.35 feet). Flood of Mar. 3, 1910, reached a stage of 15.7 feet on old Weather Bureau gage (discharge about 100,000 second-feet), but flood of June 1894 was considerably higher.

Remarks.- Records excellent. Flow regulated by reservoirs above station and by Swan Falls power plant. Some diversions below Murphy for irrigation.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,930	11,500	11,300	11,500	11,500	36,500	48,400	22,200	20,600	8,230	8,690	9,190
2	10,100	11,400	11,300	12,200	11,300	30,700	41,000	22,700	21,000	8,300	8,480	9,230
3	10,200	11,400	11,400	14,500	11,400	27,500	34,400	22,500	20,900	8,160	8,300	9,270
4	10,700	11,300	11,500	15,100	11,900	23,600	30,100	21,700	19,700	8,580	8,300	9,900
5	10,800	11,200	11,200	14,900	12,600	21,500	31,600	20,800	19,400	8,620	8,230	10,700
6	10,900	11,100	11,300	13,800	14,700	19,600	32,600	19,400	18,800	8,370	8,300	10,900
7	11,300	11,000	11,300	12,700	18,000	18,200	30,400	17,700	17,700	8,200	8,230	10,700
8	11,400	11,100	11,400	12,200	15,100	19,600	28,800	16,900	17,100	8,340	8,200	10,800
9	11,600	11,400	11,400	12,000	14,200	20,900	28,400	16,100	15,400	8,160	8,200	10,800
10	11,800	11,200	11,500	13,700	15,000	20,400	28,900	15,900	14,200	8,200	8,260	10,700
11	11,500	11,200	12,200	13,800	16,900	19,500	27,800	17,200	13,700	8,090	8,160	10,400
12	11,200	11,200	12,000	12,700	15,100	18,100	26,000	19,600	13,300	8,090	8,260	10,600
13	11,100	11,100	12,000	12,100	14,200	16,800	25,000	22,900	13,100	8,060	8,260	10,500
14	11,000	11,200	11,700	11,600	13,800	16,100	25,300	25,100	13,000	8,090	8,120	11,200
15	10,900	11,200	11,500	11,500	13,600	14,100	27,200	25,300	13,000	7,950	7,980	11,500
16	10,800	11,100	11,600	11,200	13,200	13,600	27,900	24,700	12,700	8,120	8,060	11,400
17	10,600	11,100	12,100	11,000	13,100	13,400	27,300	24,000	12,500	8,340	8,090	11,400
18	10,700	10,800	12,500	11,200	13,200	13,200	26,200	22,700	12,100	8,300	8,260	11,700
19	10,600	10,900	12,500	10,800	12,900	13,800	25,900	22,100	11,400	8,370	8,340	11,900
20	10,700	10,900	12,300	11,000	12,700	15,100	27,700	21,900	11,000	8,400	8,340	12,400
21	10,700	11,000	12,000	11,000	12,200	15,400	27,800	21,900	10,600	8,690	8,440	12,500
22	10,600	11,300	11,600	10,700	12,100	15,900	26,600	21,800	10,000	8,480	8,370	12,400
23	10,800	11,400	11,500	10,900	12,100	16,100	26,000	21,900	9,600	8,480	8,340	12,300
24	10,700	11,500	11,400	10,900	12,000	16,700	25,200	22,300	9,300	8,620	8,400	12,000
25	10,600	11,700	11,200	11,000	12,400	17,500	23,900	23,100	8,940	8,230	8,580	11,600
26	11,100	11,600	11,000	11,100	16,600	20,700	22,200	23,900	8,760	8,400	8,690	11,400
27	11,500	11,700	10,800	11,500	25,700	31,700	21,900	23,900	8,580	8,730	8,760	11,300
28	11,500	11,700	10,600	12,100	38,900	37,100	22,000	23,000	8,230	8,650	8,980	11,200
29	11,500	11,600	10,800	11,800	43,600	33,400	22,700	22,300	8,160	8,690	8,870	11,400
30	11,500	11,500	10,900	11,800	-	32,900	23,500	21,300	8,060	8,580	8,830	12,000
31	11,500	-	11,200	11,700	-	40,600	-	20,400	-	8,510	9,050	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	340,030	11,800	9,930	10,970	674,400
November	338,300	11,700	10,800	11,280	671,000
December	357,000	12,500	10,600	11,520	708,100
Calendar year 1939	5,005,270	38,900	8,160	13,710	9,927,000
January	374,000	15,100	10,700	12,060	741,800
February	460,000	43,600	11,300	15,860	912,400
March	670,200	40,600	13,200	21,620	1,329,000
April	842,700	48,400	21,900	28,090	1,671,000
May	667,200	25,300	15,900	21,520	1,323,000
June	400,830	21,000	8,060	13,360	795,000
July	259,030	8,730	7,950	8,356	513,800
August	260,370	9,050	7,980	8,399	516,400
September	333,290	12,500	9,190	11,110	661,100
Water year 1939-40	5,302,950	48,400	7,950	14,490	10,520,000

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Snake River at Oxbow, Oreg.

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

Records available.- May 1923 to September 1940.

Average discharge.- 17 years, 15,760 second-feet.

Extremes.- Maximum discharge during year, 52,200 second-feet Apr. 1 (gage height, 16.97 feet); minimum, 7,880 second-feet July 14 (gage height, 7.43 feet).
1923-40: Maximum discharge, 72,800 second-feet May 4, 1938 (gage height, 20.25 feet); minimum, 4,890 second-feet Aug. 6, 1924 (gage height, 6.30 feet).

Remarks.- Records excellent. Flow affected by irrigation and operation of power plants above station.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

7.4	7,810	9.0	12,490	12	24,370
7.8	8,820	9.5	14,230	13	29,170
8.2	9,940	10	16,070	15	40,350
8.6	11,170	11	20,040	17	52,420

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,100	11,800	11,500	11,700	12,100	40,200	49,400	24,100	21,500	8,350	8,610	9,200
2	10,200	11,700	11,500	12,100	11,900	33,000	49,200	23,600	21,900	8,510	8,690	9,310
3	10,300	11,600	11,500	13,700	11,800	29,600	41,200	24,000	22,000	8,530	8,510	9,310
4	10,500	11,600	11,600	15,600	12,100	25,700	35,300	23,700	21,200	8,480	8,330	9,570
5	11,100	11,400	11,500	15,600	12,800	22,700	33,500	22,500	20,000	8,850	8,300	10,500
6	11,200	11,400	11,300	15,000	14,000	20,800	36,200	21,400	19,900	8,720	8,350	11,000
7	11,400	11,300	11,500	13,900	18,100	19,400	34,200	20,000	19,000	8,530	8,250	11,200
8	11,600	11,200	11,500	13,000	17,500	18,800	32,700	18,700	18,000	8,350	8,330	11,000
9	11,900	11,300	11,600	12,700	15,500	21,000	31,500	18,000	17,400	8,480	8,180	11,100
10	11,900	11,500	11,700	13,000	15,000	20,900	31,700	17,700	15,600	8,250	8,180	11,000
11	12,100	11,400	11,700	14,400	16,800	20,300	31,300	18,400	14,900	8,250	8,250	10,700
12	11,700	11,300	12,000	13,700	16,800	19,100	29,500	20,000	14,400	8,150	8,200	10,700
13	11,500	11,300	a11,900	12,800	15,300	17,800	28,300	22,500	14,300	8,100	8,120	11,000
14	11,400	11,300	a11,900	12,200	14,800	16,800	27,600	25,500	14,000	8,050	8,120	11,000
15	11,300	11,400	11,800	11,900	14,400	15,800	29,000	26,400	13,800	8,180	8,050	11,700
16	11,100	11,600	11,800	11,800	14,100	14,200	30,300	26,300	13,700	8,000	8,100	12,100
17	11,100	a11,600	11,900	11,500	13,900	14,000	30,000	25,600	13,300	8,220	8,250	11,900
18	11,100	a11,500	12,500	11,300	13,800	13,900	29,300	24,600	13,100	8,380	8,330	12,000
19	10,900	a11,500	12,900	11,500	13,800	14,100	28,300	23,700	12,600	8,350	8,350	12,400
20	10,900	a11,400	12,700	11,100	13,400	14,800	28,800	23,400	11,900	8,380	8,480	12,500
21	10,900	a11,400	12,400	11,300	13,200	16,000	30,300	23,300	11,400	8,380	8,380	13,000
22	10,900	a11,300	12,200	11,300	12,900	16,200	29,100	23,300	10,900	8,690	8,510	13,000
23	10,800	11,300	11,900	10,900	12,800	16,700	28,400	23,300	a10,500	8,400	8,380	12,800
24	10,900	11,600	11,800	11,200	12,800	17,000	27,400	23,700	a10,100	8,400	8,400	12,600
25	10,800	11,700	11,500	11,300	12,900	18,200	26,500	24,000	a9,680	8,460	8,610	12,300
26	10,800	11,800	11,400	11,400	14,700	20,100	24,700	24,600	a9,280	8,330	8,770	11,900
27	11,500	11,800	11,100	11,600	22,300	28,400	23,600	24,900	8,870	8,660	8,770	11,700
28	11,800	11,800	11,000	12,000	35,200	37,000	23,300	24,300	8,770	8,870	8,870	11,700
29	11,700	11,800	11,000	12,400	44,900	36,800	23,800	23,500	8,460	8,850	9,090	11,700
30	11,800	11,700	11,300	12,200	-	34,400	24,300	22,800	8,380	8,820	9,010	12,200
31	11,700	-	11,400	12,200	-	38,700	-	21,900	-	8,610	9,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	346,900	12,100	10,100	11,190	688,100
November	345,300	11,800	11,200	11,510	684,900
December	363,300	12,900	11,000	11,720	720,600
Calendar year 1939	5,231,180	41,700	8,210	14,330	10,380,000
January	386,300	15,600	10,900	12,460	766,200
February	469,600	44,900	11,800	16,190	931,400
March	692,400	40,200	13,900	22,340	1,373,000
April	928,700	49,400	23,300	30,960	1,842,000
May	709,700	26,400	17,700	22,890	1,408,000
June	428,840	22,000	8,380	14,290	850,600
July	261,580	8,870	8,000	8,438	518,800
August	261,810	9,090	8,050	8,445	519,300
September	342,090	13,000	9,200	11,400	678,500
Water year 1939-40	5,536,520	49,400	8,000	15,130	10,980,000

a No gage-height record; discharge interpolated.

Snake River near Clarkston, Wash.

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

Drainage area.- 103,200 square miles.

Records available.- October 1915 to September 1922 and August 1928 to September 1935 (at site at Riparia, 66 miles downstream, published as Snake River at Riparia), and October 1935 to September 1940 in reports of Geological Survey. October 1909 to September 1933 (at former site) in State Water-Supply Bulletin 5.

Average discharge.- 31 years (1909-40), 47,700 second-feet.

Extremes.- Maximum discharge during year, 126,000 second-feet May 12, 13 (gage height, 24.7 feet); minimum, 11,500 second-feet Aug. 25; minimum gage height, 8.68 feet Aug. 17.

1909-40: Maximum discharge observed, 270,000 second-feet May 20, 1921 (gage height, 19.0 feet, site and datum then in use); minimum discharge, possibly as low as 9,000 second-feet sometime during period of ice effect, Jan. 6 to Feb. 20, 1937.

Maximum stage known, 24.7 feet, at Riparia, June 5, 1894, from floodmarks, determined by U. S. Weather Bureau (discharge, 409,000 second-feet).

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

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 22 to Sept. 30)

9.0	12,700	12	25,400	16	47,700	20	78,700
9.5	14,500	13	30,400	17	54,700	22	97,800
10	16,500	14	35,500	18	62,000	24	118,000
11	20,500	15	41,500	19	70,000	25	129,000

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,300	19,700	18,500	25,900	22,400	96,800	108,000	77,800	96,800	25,400	17,300	13,700
2	15,700	19,300	18,100	29,900	21,900	87,800	122,000	77,800	99,800	25,400	16,500	13,700
3	15,700	19,300	18,500	31,900	21,400	80,500	111,000	84,100	94,800	25,400	16,100	13,300
4	16,100	18,900	18,900	33,900	21,400	70,000	95,800	92,800	88,800	25,400	16,100	13,700
5	16,500	18,900	18,900	33,900	24,400	60,400	85,900	94,800	84,100	24,400	15,300	14,900
6	18,500	18,500	18,500	32,900	31,400	54,700	85,000	89,800	81,400	24,400	15,300	17,700
7	20,500	18,100	18,100	30,400	47,000	49,100	83,200	83,200	76,000	23,900	14,900	18,500
8	19,700	18,500	17,700	27,400	46,300	52,600	79,600	77,800	72,400	23,900	14,900	17,700
9	19,300	19,700	18,500	25,400	40,900	52,600	81,400	77,800	68,400	19,700	14,500	16,900
10	18,900	19,700	22,400	25,400	41,500	51,200	86,800	84,100	63,600	21,400	14,100	16,900
11	18,900	19,300	26,400	25,900	43,900	48,400	84,100	102,000	59,600	20,100	13,700	16,500
12	18,900	18,500	25,400	26,400	41,500	45,100	79,600	119,000	58,900	20,500	14,100	16,500
13	18,500	18,500	24,400	24,900	37,900	42,100	77,800	125,000	59,600	18,500	14,500	16,500
14	18,100	18,500	22,400	21,900	34,400	38,500	82,300	124,000	59,600	18,900	13,300	17,300
15	18,100	18,500	21,400	21,900	32,900	36,700	89,800	120,000	57,500	18,500	13,700	17,700
16	18,100	18,500	23,400	21,400	30,900	36,700	93,800	116,000	54,000	17,700	13,300	19,700
17	18,100	18,100	28,400	21,400	29,400	37,900	89,800	113,000	51,900	17,700	13,300	19,300
18	18,500	17,700	31,400	20,900	31,400	39,100	85,900	110,000	49,100	18,100	13,300	19,700
19	18,100	17,300	28,900	20,100	32,400	37,300	87,800	108,000	47,000	18,500	13,700	19,700
20	17,700	17,300	26,400	18,900	31,900	37,900	90,800	109,000	44,500	18,500	13,700	19,700
21	18,100	17,300	25,900	17,700	29,900	39,100	99,800	110,000	43,300	18,100	13,700	20,100
22	18,100	17,300	25,400	18,500	28,900	41,500	94,800	110,000	40,300	18,100	13,300	20,500
23	17,700	17,700	24,900	18,500	27,900	42,700	89,800	110,000	37,900	18,100	13,300	20,500
24	17,700	18,500	21,400	18,900	26,900	45,100	88,800	114,000	34,900	16,900	13,000	19,700
25	17,700	18,500	20,900	19,300	27,400	49,100	85,900	119,000	33,400	16,500	13,300	19,300
26	18,100	18,100	20,500	18,900	37,900	59,600	83,200	119,000	31,400	16,500	13,300	18,500
27	18,100	18,100	19,700	19,700	51,900	75,100	81,400	112,000	29,900	16,900	13,700	17,700
28	18,900	18,100	19,300	20,900	70,000	93,800	81,400	106,000	28,900	18,900	13,700	18,100
29	19,300	18,500	18,500	22,400	95,800	95,800	82,300	99,800	27,400	19,700	13,700	20,100
30	20,900	18,900	18,500	22,900	-	88,800	80,500	97,800	26,400	18,900	13,700	22,400
31	20,500	-	21,400	22,400	-	86,800	-	98,800	-	17,700	13,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	564,300	20,900	15,300	18,200	1,119,000
November	553,800	19,700	17,300	18,460	1,098,000
December	683,000	31,400	17,700	22,030	1,355,000
Calendar year 1939	13,490,100	144,000	14,000	36,960	26,760,000
January	740,800	33,900	17,700	23,900	1,469,000
February	1,061,800	95,800	21,400	36,610	2,106,000
March	1,772,800	96,800	36,700	57,190	3,516,000
April	2,668,300	122,000	77,800	88,940	5,292,000
May	3,182,400	125,000	77,800	102,700	6,312,000
June	1,701,600	99,800	26,400	56,720	3,375,000
July	622,600	25,400	16,500	20,080	1,235,000
August	439,600	17,300	13,000	14,180	871,900
September	536,500	22,400	13,300	17,880	1,064,000
Water year 1939-40	14,527,500	125,000	13,000	39,690	28,810,000

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Flat Creek near Jackson, Wyo.

Location.- Staff gage, lat. 43°33', long. 110°37', in SW¼ sec. 35, T. 42 N., R. 115 W., just downstream from power plant of Jackson Hole Light & Power Co., 9 miles northeast of Jackson.

Drainage area.- 40 square miles.

Records available.- June 1933 to September 1940, except during winters.

Extremes.- Maximum discharge observed during periods, 148 second-feet June 1 (gage height, 1.37 feet); minimum daily, 13 second-feet Apr. 7-9.
1933-40: Maximum discharge observed, 438 second-feet June 15, 1935 (gage height, 3.48 feet, site and datum then in use); minimum observed, 7 second-feet Apr. 15-18, 1935, but may have been less during winters, when no records were obtained.

Remarks.- Records fair.

Cooperation.- Gage-height record furnished by Jackson Hole Light & Power Co. in connection with a Federal Power Commission project.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	20	17				-	16	146	69	29	17
2	24	20	16				-	16	146	66	27	17
3	23	20	16				-	16	144	63	27	17
4	24	20	16				-	16	142	59	27	17
5	24	21	16				-	16	140	56	27	17
6	23	20	16				-	18	134	54	27	17
7	23	20	16				13	19	124	54	26	16
8	22	20	15				13	19	119	54	25	16
9	22	20	15				13	19	111	52	25	16
10	22	20	15				14	20	104	52	24	16
11	22	19	15				14	21	101	51	23	16
12	22	19	15				15	22	95	48	23	16
13	22	20	15				15	24	94	43	22	17
14	22	20	15				15	24	99	40	22	17
15	22	19	14				15	26	104	40	22	17
16	23	19	15				14	29	119	40	21	17
17	22	19	15				14	39	124	40	22	16
18	22	19	15				14	52	132	39	21	16
19	22	19	15				14	60	138	40	21	17
20	22	19	15				15	69	138	38	20	16
21	22	19	15				15	74	136	37	20	16
22	23	18	15				14	78	123	36	19	16
23	22	19	15				15	78	106	36	20	16
24	22	18	15				14	88	101	36	19	16
25	22	19	14				14	92	97	35	19	16
26	22	18	14				14	97	92	34	19	16
27	21	18	14				14	108	90	32	19	17
28	21	18	15				15	124	88	30	19	17
29	20	17	14				15	134	85	30	19	18
30	21	17	14				15	146	77	30	18	18
31	20	-	14				-	142	-	29	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	687	24	20	22.2	1,360
November	574	21	17	19.1	1,140
December	466	17	14	15.0	924
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 7-30	343	15	13	14.3	680
May	1,702	146	16	54.9	3,380
June	5,449	146	77	115	6,840
July	1,363	69	29	44.0	2,700
August	690	29	18	22.3	1,370
September	497	18	16	16.6	986
Water year	-	-	-	-	-

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Salt River near Smoot, Wyo.

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

Drainage area.- 59.4 square miles.

Records available.- June 1932 to September 1940.

Extremes.- Maximum discharge during year, 108 second-feet May 18 (gage height, 2.16 feet); minimum daily, 3.6 second-feet Nov. 14, Jan. 20, Mar. 12-20.
1932-40: Maximum discharge, 430 second-feet May 15, 1936 (gage height, 3.15 feet), from rating curve extended above 200 second-feet; minimum not determined.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	6.2	4.9	5.8	5.6	6.0	9.0	28	72	19	8.6	7.0
2	4.4	5.8	4.8	5.8	5.8	5.6	8.6	34	67	20	8.6	7.4
3	4.7	5.8	4.8	6.0	5.8	5.6	7.4	43	56	20	8.6	6.6
4	4.7	6.2	4.8	5.8	5.8	5.6	7.4	48	56	20	8.6	a6.6
5	4.7	6.6	4.8	5.8	5.8	5.6	8.6	47	58	18	7.8	a6.6
6	4.4	6.2	4.8	5.8	5.8	5.4	8.2	46	53	19	7.0	a6.6
7	4.7	5.8	4.8	5.8	5.8	5.2	7.8	43	45	16	6.6	a6.6
8	5.4	5.8	4.8	5.8	5.6	4.8	8.6	a45	45	15	7.8	a6.8
9	6.6	5.4	4.8	5.8	5.6	4.4	9.5	a52	45	12	8.6	a6.8
10	7.0	5.4	4.8	5.8	5.6	4.0	9.0	a56	41	12	8.2	a6.8
11	7.0	5.2	4.7	5.8	5.6	3.8	9.0	a62	37	12	8.2	a6.8
12	7.0	5.0	4.6	6.0	5.2	3.6	9.5	a76	39	12	7.8	a6.8
13	7.4	4.2	5.0	5.8	5.0	3.6	14	a74	39	11	7.8	a6.8
14	7.4	3.6	5.4	5.8	*5.6	3.6	18	a80	39	12	7.8	a6.8
15	7.4	4.4	5.6	5.8	5.6	3.6	23	a90	39	13	8.2	a6.8
16	7.4	4.4	5.2	6.0	4.8	3.6	26	a96	36	13	7.8	a6.8
17	7.4	4.5	5.2	5.6	5.0	3.6	24	100	36	12	7.4	a6.8
18	7.4	4.7	5.0	5.4	5.0	3.6	28	101	34	12	7.4	a7.0
19	7.8	4.6	5.0	4.4	5.2	3.6	36	95	34	11	7.8	a7.2
20	7.4	4.6	5.0	3.6	5.2	3.6	40	a92	30	10	8.6	7.4
21	6.6	4.8	5.0	4.1	4.8	3.8	37	a90	26	10	9.0	6.6
22	5.4	4.8	5.0	3.8	5.2	*3.8	33	a84	29	9.5	8.2	5.8
23	5.8	4.8	4.8	4.6	5.2	3.8	33	a82	25	10	7.8	5.8
24	5.8	4.8	4.8	5.6	5.2	4.1	33	a80	25	12	7.8	5.8
25	6.2	4.8	4.8	6.0	5.2	4.1	34	a78	24	11	8.6	5.4
26	6.2	4.9	4.6	6.2	5.4	4.7	36	77	20	11	8.6	5.8
27	6.2	4.9	4.6	6.0	5.6	6.6	35	a76	17	12	7.4	5.8
28	6.6	4.9	4.0	6.0	5.8	5.4	34	a74	16	11	7.0	8.6
29	6.6	4.9	4.5	5.8	6.4	4.7	30	a72	17	10	7.0	8.6
30	6.2	4.9	5.4	5.6	-	6.2	28	a72	20	10	6.6	6.6
31	6.2	-	5.8	5.2	-	8.6	-	a72	-	9.0	6.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	191.8	7.8	3.8	6.19	380
November	152.9	6.6	3.6	5.10	303
December	152.1	5.8	4.0	4.91	302
Calendar year 1939	9,901.8	180	3.6	27.1	19,640
January	171.3	6.2	3.6	5.53	340
February	158.2	6.4	4.8	5.46	314
March	144.2	8.6	3.6	4.65	286
April	644.6	40	7.4	21.5	1,280
May	2,165	101	28	69.8	4,290
June	1,120	72	16	37.3	2,220
July	404.5	20	9.0	13.0	802
August	243.8	9.0	6.6	7.86	484
September	201.8	8.6	5.4	6.73	400
Water year 1939-40	5,750.2	101	3.6	15.7	11,400

*Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage and records for station at Wyoming-Idaho State line.
Note.- Stage-discharge relation affected by ice Nov. 10 to Mar. 21.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Salt River at Wyoming-Idaho State line

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

Drainage area.- 890 square miles.

Records available.- April 1934 to September 1940. July 1917 to September 1918 at site 4 miles upstream; records not equivalent.

Extremes.- Maximum discharge during year, 803 second-feet Apr. 20 (gage height, 2.39 feet); minimum daily, 327 second-feet May 31.
1934-40: Maximum discharge, 3,520 second-feet May 6, 1936 (gage height, 4.64 feet); minimum, 216 second-feet May 17, 1934 (gage height, 1.30 feet).

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

Rating table, water year 1939-40, except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.5	300	1.7	370	2.1	600
1.6	330	1.8	420	2.4	810

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	534	582	486	474	400	456	649	649	338	415	380	380
2	540	570	486	492	385	438	628	649	346	426	362	380
3	564	570	474	510	375	426	594	705	354	438	366	380
4	558	546	480	486	375	415	582	768	375	438	366	395
5	546	552	474	486	370	415	582	775	410	420	366	395
6	552	552	474	474	375	415	576	754	456	415	370	395
7	552	564	474	462	380	400	558	719	468	395	375	390
8	552	576	480	468	380	405	558	712	480	390	380	385
9	546	558	468	468	375	400	594	719	480	395	385	395
10	546	546	468	468	385	395	614	712	474	400	380	400
11	546	540	462	456	380	385	588	740	468	415	375	395
12	546	540	468	462	375	380	576	[illegible]	468	390	380	400
13	546	534	468	438	375	370	582	775	[illegible]6	390	380	415
14	546	546	474	444	380	370	614	[illegible]	444	400	380	432
15	546	534	468	444	385	375	691	670	420	400	375	438
16	552	534	480	438	380	375	761	670	410	410	370	432
17	552	528	474	474	366	380	719	600	400	405	366	415
18	546	522	480	b450	380	390	712	564	400	400	354	438
19	546	534	450	b400	375	395	747	528	390	410	358	456
20	540	534	456	b420	370	400	782	498	380	400	362	480
21	540	534	474	b390	366	405	782	468	380	390	362	474
22	540	528	468	b410	370	415	740	432	375	385	358	468
23	540	522	450	b430	370	432	754	385	370	380	366	456
24	534	516	456	b460	370	450	747	375	380	375	375	450
25	534	516	438	450	370	474	740	358	405	375	380	444
26	534	504	420	410	380	510	740	350	400	375	380	444
27	534	504	438	426	410	635	740	342	380	375	380	450
28	534	498	426	432	450	656	733	334	380	380	375	456
29	540	504	480	438	468	576	719	338	385	385	375	468
30	540	498	468	405	-	582	677	334	395	405	385	462
31	564	-	474	380	-	621	-	327	-	400	385	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	16,890	564	534	545	33,500
November	16,086	582	498	536	31,910
December	14,436	486	420	466	28,630
Calendar year 1939	227,922	1,450	334	624	452,100
January	13,845	510	380	447	27,460
February	11,120	468	366	383	22,060
March	13,741	656	370	443	27,250
April	20,079	782	558	669	39,830
May	17,730	775	327	572	35,170
June	12,267	480	338	409	24,330
July	12,377	438	375	399	24,550
August	11,511	385	354	373	22,910
September	12,768	480	380	426	25,320
Water year 1939-40	172,890	782	327	472	342,900

b Stage-discharge relation affected by ice.

Cottonwood Creek near Smoot, Wyo.

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

Drainage area.- 26 square miles.

Records available.- May 1933 to September 1940.

Extremes.- Maximum discharge during year, 140 second-feet May 28 (gage height, 1.97 feet); minimum daily, 11 second-feet Feb. 28 to Mar. 2.
1933-40: Maximum discharge observed, 424 second-feet June 17, 18, 1933 (gage height, 2.76 feet, datum then in use); from rating curve extended above 200 second-feet; minimum daily, 8.5 second-feet Feb. 22 to Mar. 2, 1935.

Remarks.- Records good except those for periods of ice effect, which are fair. One small diversion above station. Flow regulated by Cottonwood Lake.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	18	17	14	14	11	15	25	126	56	42	24
2	22	18	17	15	14	11	15	27	128	60	42	24
3	20	17	17	15	14	13	14	31	128	58	41	25
4	20	18	17	15	13	13	14	36	119	55	41	25
5	22	18	17	15	13	13	14	39	117	54	40	25
6	22	18	17	15	13	13	14	39	105	52	40	25
7	22	17	17	14	14	13	14	37	103	51	43	25
8	21	18	17	15	13	13	14	39	97	51	41	25
9	21	18	17	16	13	13	14	43	94	48	38	25
10	21	17	16	16	13	13	13	46	91	50	36	25
11	21	17	16	17	14	13	13	56	86	48	35	25
12	21	17	15	16	13	14	14	63	86	46	34	25
13	20	17	15	17	14	14	15	72	93	45	33	25
14	20	17	16	17	13	13	17	70	94	44	31	25
15	20	17	16	17	13	13	18	74	94	41	30	25
16	20	17	15	15	13	12	18	83	91	40	29	25
17	20	17	16	15	13	13	18	109	89	38	29	25
18	20	17	15	b14	12	13	19	113	86	38	29	25
19	20	17	15	b15	12	13	20	119	85	38	28	26
20	20	17	16	b14	12	13	20	117	78	38	28	26
21	20	17	16	b13	13	13	21	113	74	38	28	25
22	20	17	16	b13	12	12	22	107	72	37	28	25
23	20	17	15	b13	12	13	22	113	72	36	28	24
24	20	17	15	b13	12	14	23	124	71	35	28	24
25	20	17	15	b14	12	14	25	130	70	35	28	24
26	20	17	15	b15	12	14	26	135	70	34	28	23
27	20	17	15	b15	12	15	26	135	68	35	27	22
28	19	17	b14	15	11	15	26	135	65	34	25	23
29	19	17	b15	15	11	14	26	130	62	34	25	23
30	19	17	15	15	-	14	25	126	55	34	25	23
31	18	-	15	15	-	15	-	126	-	39	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	630	22	18	20.3	1,250
November	517	18	17	17.2	1,030
December	490	17	14	15.8	972
Calendar year 1939	14,486	144	11	39.7	28,750
January	463	17	13	14.9	918
February	370	14	11	12.8	734
March	410	15	11	13.2	813
April	555	26	13	18.5	1,100
May	2,612	135	25	84.3	5,180
June	2,669	128	55	89.0	5,290
July	1,342	60	34	43.3	2,660
August	1,005	42	25	32.4	1,990
September	736	26	22	24.5	1,460
Water year 1939-40	11,799	135	11	32.2	23,400

b Stage-discharge relation affected by ice.

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Strawberry Creek near Bedford, Wyo.

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

Drainage area.- 21.3 square miles.

Records available.- June 1932 to September 1940.

Extremes.- Maximum discharge during year, 213 second-feet May 30 (gage height, 3.06 feet); minimum daily, 29 second-feet Mar. 21.
1932-40: Maximum discharge observed, 675 second-feet June 25, 1932 (gage height, 3.00 feet, site and datum then in use), from rating curve extended above 300 second-feet; minimum not determined.

Remarks.- Records good. One small diversion above station.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 5 to Sept. 30)

1.8	22	2.1	51	2.7	140
1.9	31	2.2	64	2.9	179
2.0	41	2.5	106	3.2	242

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	45	39	35	31	32	33	44	185	84	64	52
2	50	44	39	35	31	32	33	44	167	82	63	51
3	50	43	39	35	31	32	32	48	151	81	63	51
4	49	43	39	35	31	32	32	51	138	81	63	50
5	49	43	39	35	31	33	33	56	138	78	63	49
6	49	43	38	35	31	32	33	60	127	77	63	47
7	47	42	38	35	31	31	32	60	127	75	61	47
8	47	42	38	35	31	31	33	60	120	71	61	47
9	47	42	39	36	31	31	33	60	114	71	61	47
10	47	42	39	35	31	31	33	64	111	71	61	47
11	46	42	39	35	31	31	33	78	114	71	59	47
12	46	42	39	35	31	31	33	88	124	71	59	47
13	46	42	38	35	32	31	32	106	135	68	58	47
14	46	42	38	35	32	31	34	129	135	67	58	47
15	46	41	38	34	32	31	35	126	131	65	58	47
16	45	41	38	34	32	31	36	127	124	65	56	47
17	45	41	38	34	31	31	35	127	119	65	56	47
18	46	41	38	33	31	31	34	126	114	65	56	47
19	46	41	38	33	31	31	36	127	111	64	56	47
20	46	42	38	33	31	30	41	124	103	65	56	47
21	46	41	37	33	31	29	44	117	100	68	56	47
22	46	41	37	32	32	30	43	120	96	67	55	47
23	45	41	37	32	32	31	44	126	93	65	55	47
24	45	40	37	31	32	32	44	135	93	65	55	47
25	45	40	37	32	31	33	44	140	89	65	55	47
26	45	40	36	31	32	33	44	171	89	67	55	47
27	45	40	36	31	32	34	47	173	88	67	55	47
28	46	40	36	31	32	33	47	175	85	67	52	47
29	46	39	35	31	32	32	47	173	84	65	52	47
30	45	39	35	31	-	32	46	183	84	65	52	46
31	45	-	35	31	-	32	-	179	-	64	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,442	50	45	46.5	2,860
November	1,245	45	39	41.5	2,470
December	1,167	39	35	37.6	2,310
Calendar year 1939	23,173	210	30	63.5	45,970
January	1,038	36	31	33.5	2,060
February	910	32	31	31.4	1,800
March	977	34	29	31.5	1,940
April	1,126	47	32	37.5	2,230
May	3,397	183	44	110	6,740
June	3,489	185	84	116	6,920
July	2,162	84	64	69.7	4,290
August	1,789	64	52	57.7	3,550
September	1,427	52	46	47.6	2,830
Water year 1939-40	20,169	185	29	55.1	40,000

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Henrys Lake near Lake, Idaho

Location.- Staff gage, lat. 44°36', long. 111°21', in SW¼ sec. 26, T. 15 N., R. 43 E., at dam on Henrys Fork, 4 miles south of Lake post office. Datum of gage is 6,457.16 feet above mean sea level (levels by Bureau of Reclamation).

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

Records available.- July 1923 to September 1940 (irrigation seasons only).

Extremes.- Maximum contents observed during year, 67,852 acre-feet June 23, 26, July 2 (gage height, 13.16 feet); minimum observed, 35,551 acre-feet Sept. 11 (gage height, 7.62 feet).
1923-40: Maximum contents observed, 75,192 acre-feet July 8-10, 1928 (gage height, 14.34 feet); minimum observed, 140 acre-feet Nov. 8, 1934 (gage height, 0.03 foot).

Remarks.- Reservoir is formed on natural lake by concrete dam; storage began Sept. 21, 1922; dam completed July 1923. Capacity, 79,351 acre-feet between gage height 0.0 foot (normal low water level of Henrys Lake prior to construction of dam) and 15.0 feet (top of 5-foot flashboards in spillway). Flood waters of Dry Creek are diverted into Henrys Lake. Gage read once daily, usually about 9 a.m., during period of storage withdrawal. Contents are computed as of that time, all available for release.

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

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	-	-	-	54,120	-
2							-	-	-	67,852	53,418	-
3							-	62,123	-	-	52,598	-
4							-	-	-	-	52,247	-
5							-	-	-	-	51,077	-
6							-	-	-	-	50,023	-
7							-	-	-	-	48,321	-
8							-	-	-	-	46,626	-
9							-	-	-	-	47,824	-
10							-	-	-	-	47,136	-
11							-	-	-	67,357	46,448	35,551
12							-	-	-	67,357	45,645	35,661
13							-	-	-	67,233	45,187	-
14							-	-	-	-	43,926	35,770
15							-	62,730	-	-	43,353	-
16							-	-	-	-	42,453	-
17							60,667	-	-	-	41,893	-
18							-	-	-	63,581	41,108	-
19							-	-	-	63,095	40,548	-
20							-	-	-	62,366	39,763	-
21							-	-	-	61,637	39,651	-
22							-	-	-	60,786	38,642	-
23							-	-	67,852	60,190	37,969	-
24	49,087						61,394	63,459	-	59,474	37,523	36,428
25							-	-	-	58,758	37,414	-
26							-	-	67,852	58,043	36,866	-
27							-	-	-	57,327	-	-
28							-	-	-	56,850	-	-
29							-	-	-	56,253	36,318	-
30							-	-	-	55,418	-	-
31							-	64,553	-	54,941	-	-

Note.- Gates in dam closed Oct. 1 to July 1 and Sept. 7-30; slightly open July 2-13.

9-23 . ..cember 1937 UNITED STATES DEPARTMENT OF THE INTERIOR
Geolo[illegible] al Survey

Henrys Fork near Lake, Idaho

Location.- Water-stage recorder, lat. 44°36', long. 111°21', in SW¼ sec. 26, T. 15 N., R. 43 E., a quarter of a mile downstream from Henrys Lake Dam and 4 miles south of Lake post office.

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

Records available.- September 1922 to September 1940. May 1920 to September 1922 at site 3 miles downstream and below mouth of Dry Creek, whose floodwaters have been diverted into Henrys Lake since 1923.

Extremes.- Maximum discharge during year, 371 second-feet Aug. 1 (gage height, 3.34 feet); minimum, 2 second-feet Sept. 20-30 (leakage through reservoir gates).
1920-40: Maximum discharge, 907 second-feet June 13, 1926 (gage height, 5.40 feet); minimum, 0.1 second-foot Oct. 3-31, 1937.

Remarks.- Records good except those for period of no gage-height record, which are fair. Flow regulated by gates at Henrys Lake (see p. 40), which remained closed Oct. 1 to July 1 and Sept. 7 to 30; flow during these periods was leakage.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										a7	371	48
2										†15	369	48
3										a15	367	48
4										a15	363	48
5										a15	361	48
6										a15	357	110
7										a15	355	8
8										a15	353	a8
9										a15	349	a8
10										a15	347	a8
11										17	345	a8
12										20	343	a8
13										197	341	a8
14										326	339	8
15	12	S	8	S	8	S	8	5	7	324	338	6
16										324	336	5
17										323	334	5
18										323	332	4
19										330	330	3
20										336	326	2
21										336	326	2
22										336	263	2
23										336	224	2
24										336	214	2
25										336	212	a2
26										334	211	a2
27										332	110	a2
28										330	51	a2
29										328	44	a2
30					-					343	48	a2
31		-			-		-		-	365	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	372	-	-	12	738
November	240	-	-	8	476
December	248	-	-	8	492
Calendar year 1939	4,418	-	-	12.1	8,770
January	248	-	-	8	492
February	232	-	-	8	460
March	248	-	-	8	492
April	240	-	-	8	476
May	155	-	-	5	307
June	210	-	-	7	417
July	6,374	365	7	206	12,640
August	8,707	371	44	281	17,270
September	459	110	2	15.3	910
Water year 1939-40	17,733	371	2	48.5	35,170

†Discharge measurement.
a No gage-height record; discharge computed on basis of records of gate operation at dam above gage.
Note.- Mean monthly discharge October to June computed on basis of discharge measurements on Oct. 24, May 31, and June 26 and two gage readings.

UNITED STATES DEPARTMENT OF THE ~~INTERIOR~~
Geological Survey

Henrys Fork at Coffee Pot Rapids, near Island Park, Idaho

Location.- Water-stage recorder, lat. 44°30', long. 111°24', in SE¼ sec. 32, T. 14 N., R. 43 E., 5 miles northwest of Island Park and 6 miles upstream from Hotel Creek.

Drainage area.- 257 square miles.

Records available.- April 1935 to November 1940 (discontinued).

Extremes.- 1939-40: Maximum discharge during water year, 872 second-feet Apr. 23 (gage height, 2.93 feet), from rating curve extended above 600 second-feet; minimum, 246 second-feet Jan. 20-26 (gage height, 1.69 feet).
1940: Maximum discharge during period October to November, 279 second-feet Oct. 3, 4 (gage height, 1.80 feet); minimum, 249 second-feet Nov. 13 (gage height, 1.72 feet).
1935-40: Maximum daily discharge, 1,070 second-feet May 11, 1935 (gage height, 3.21 feet), from rating curve extended above 600 second-feet; minimum, 209 second-feet several days during November, December 1935, March, April 1936 (gage height, 1.58 feet).

Remarks.- Records good. Flow regulated by Henrys Lake (see p. 40).

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

Rating table, Oct. 1, 1939 to July 13, 1940 (gage height, in feet, and discharge, in second-feet)

1.7	249	2.5	603
1.9	327	2.7	720
2.1	410	2.9	852
2.3	501		

Discharge, in second-feet, 1939-40

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	299	295	268	264	257	268	307	446	331	283	566	295
2	311	295	268	264	260	268	307	464	327	295	571	291
3	307	295	268	264	264	264	303	478	331	287	571	299
4	299	295	268	264	264	264	299	473	339	283	571	299
5	291	291	268	264	264	268	311	446	a335	283	571	295
6	307	291	268	264	264	268	311	428	331	283	571	295
7	303	291	268	264	264	264	315	406	343	283	566	291
8	299	291	268	268	260	272	331	402	406	276	566	264
9	291	291	272	268	260	264	343	402	406	272	566	264
10	287	287	276	264	264	264	a340	402	356	272	566	264
11	287	283	272	257	264	260	a337	410	335	268	555	264
12	287	283	264	257	260	260	a334	419	327	272	555	264
13	287	283	264	257	260	257	331	450	319	279	555	268
14	287	283	264	253	264	260	364	428	311	446	555	268
15	287	283	264	253	264	260	376	410	299	526	555	268
16	287	279	264	253	257	264	348	402	299	535	555	268
17	287	279	264	253	264	272	348	393	295	540	555	268
18	287	279	264	249	264	268	385	381	291	540	550	272
19	287	279	264	249	260	268	478	368	291	535	555	272
20	283	276	264	246	260	272	643	364	291	535	561	272
21	283	272	264	246	260	264	649	356	287	540	561	268
22	283	268	264	246	268	260	626	348	287	540	561	264
23	283	272	264	246	268	264	773	343	287	540	506	260
24	291	276	264	246	264	264	766	343	287	540	455	260
25	295	276	264	246	264	268	696	352	283	545	446	260
26	291	272	264	246	264	279	766	381	283	545	442	253
27	287	272	264	249	268	303	720	381	283	550	437	257
28	287	272	264	253	268	a304	620	364	283	550	a360	272
29	287	268	264	257	268	a304	545	356	283	545	a310	276
30	287	268	264	260	-	a305	483	348	283	540	295	272
31	287	-	264	260	-	a306	-	343	-	545	295	-

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Discharge, in second-feet, of Henrys Fork at Coffee Pot Rapids, near Island Park, Idaho, 1939-40--Continued

1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	264	264										
2	264	272										
3	279	276										
4	279	272										
5	276	268										
6	272	268										
7	268	272										
8	264	272										
9	264	279										
10	260	268										
11	260	264										
12	260	260										
13	260	253										
14	260	-										
15	260	-										
16	260	-										
17	260	-										
18	257	-										
19	257	-										
20	257	-										
21	257	-										
22	257	-										
23	257	-										
24	257	-										
25	257	-										
26	257	-										
27	264	-										
28	264	-										
29	264	-										
30	264	-										
31	264	-										

Monthly discharge, in second-feet, 1939-40

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1939	9,021	311	283	291	17,890
November	8,445	295	268	282	16,750
December	8,244	276	264	266	16,350
Calendar year 1939	121,685	940	264	333	241,400
January 1940	7,930	268	246	256	15,730
February	7,630	268	257	263	15,130
March	8,426	306	257	272	16,710
April	13,755	773	299	458	27,280
May	12,287	478	343	396	24,370
June	9,409	406	283	314	18,660
July	13,273	550	268	428	26,330
August	15,904	571	295	513	31,550
September	8,183	299	253	273	16,230
Water year 1939-40	122,507	773	246	335	243,000
October 1940	8,143	279	257	263	16,150
November 1-13	3,488	279	253	268	6,920
December	-	-	-	-	-
The period	-	-	-	-	23,070

400457 O - 41 - 4

Island Park Reservoir near Island Park, Idaho

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

Drainage area.- 478 square miles.

Records available.- November 1938 to September 1940.

Extremes.- Maximum contents observed during year, 135,855 acre-feet Apr. 29 (elevation 6,303.08 feet); minimum observed, 16,855 acre-feet Sept. 27 (elevation 6,274.22 feet). 1938-40: Maximum contents observed, 136,905 acre-feet May 5-6, 1939; minimum observed, that of Sept. 27, 1940.

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

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

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52,685	52,605	63,760	84,960	105,705	110,370	125,710	134,960	133,430	121,270	71,275	35,080
2	52,845	52,605	64,530	85,810	106,335	110,230	126,640	134,720	133,270	120,590	69,910	33,740
3	52,965	52,605	65,065	86,545	107,105	110,230	127,345	134,555	133,270	119,610	68,615	32,445
4	53,165	52,605	65,600	87,285	107,810	110,230	128,045	134,395	133,270	118,040	67,340	31,205
5	53,085	52,605	66,145	88,030	108,375	110,230	128,750	134,475	133,270	116,630	65,850	29,920
6	53,165	52,645	66,740	88,780	108,945	110,800	129,380	134,315	133,350	115,595	64,770	28,675
7	53,365	52,605	67,390	89,470	109,585	111,160	129,930	134,235	133,350	114,280	63,470	27,400
8	53,325	52,605	68,105	90,100	109,655	111,810	130,405	134,075	133,830	112,890	62,385	26,170
9	53,085	52,605	68,665	90,920	109,655	112,385	130,880	134,075	133,590	111,665	61,085	24,845
10	52,925	52,605	69,285	91,745	109,655	112,965	131,195	134,075	133,590	110,370	59,900	23,595
11	52,765	52,605	69,960	92,450	109,800	113,255	131,355	133,990	133,430	108,520	58,695	22,500
12	52,685	52,525	70,640	93,225	109,870	113,695	131,435	134,315	133,190	106,825	57,510	21,385
13	52,685	52,445	71,330	93,935	109,655	113,985	131,590	134,640	133,110	104,870	56,225	20,605
14	52,725	52,525	72,020	94,455	109,725	114,350	131,830	134,800	132,950	103,075	55,005	19,930
15	52,685	52,605	72,665	95,040	109,725	114,715	131,990	135,045	132,790	101,030	53,770	19,250
16	52,605	53,165	73,425	95,630	109,725	115,080	132,310	135,205	132,630	99,280	52,565	18,590
17	52,645	53,815	74,080	96,355	109,725	115,520	132,230	135,205	132,470	97,280	52,645	17,930
18	52,645	54,470	74,795	97,015	109,725	115,890	132,390	135,205	132,390	94,715	52,285	17,300
19	52,605	55,130	75,130	97,610	109,655	116,110	132,630	135,045	132,150	92,645	51,075	17,205
20	52,645	55,845	75,855	98,205	109,655	116,480	133,110	135,045	132,070	90,290	49,775	17,245
21	52,685	56,565	76,975	98,945	109,585	116,925	133,910	134,720	131,990	88,465	48,510	17,195
22	52,685	57,250	77,545	99,615	109,655	117,445	134,075	134,555	131,910	86,790	47,385	17,140
23	52,725	57,900	78,115	100,085	109,725	118,115	134,555	134,395	131,115	85,200	46,250	17,090
24	52,725	58,605	79,150	100,625	109,725	118,860	135,045	134,315	130,405	83,690	45,075	17,025
25	52,765	59,360	79,730	101,300	109,725	119,460	135,045	134,235	129,300	82,080	43,930	16,945
26	52,765	59,990	80,665	101,980	109,725	120,140	135,530	134,155	127,735	80,545	42,845	16,895
27	52,765	60,625	81,370	102,665	109,940	121,500	135,770	133,990	125,485	79,210	41,760	16,855
28	52,685	61,360	82,080	103,350	110,085	122,335	135,690	133,910	125,245	77,545	40,555	16,945
29	52,525	62,105	82,675	103,970	110,230	123,095	135,855	133,830	124,010	75,855	39,230	16,975
30	52,445	62,805	83,450	104,455	-	123,860	135,365	133,670	122,640	73,970	37,815	17,050
31	52,565	-	84,115	104,870	-	125,010	-	133,590	-	72,555	36,475	-

Elevation and contents, water year October 1939 to September 1940

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	6,289.48	52,685	-
Oct. 31	6,289.45	52,565	-120
Nov. 30	6,291.81	62,805	+10,240
Dec. 31	6,295.76	84,115	+21,310
Calendar year 1939	-	-	+50,885
Jan. 31	6,298.96	104,870	+20,755
Feb. 29	6,299.72	110,230	+5,360
Mar. 31	6,301.71	125,010	+14,780
Apr. 30	6,303.92	135,365	+10,355
May 31	6,302.80	133,590	-1,775
June 30	6,301.40	122,640	-10,950
July 31	6,293.74	72,555	-50,085
Aug. 31	6,284.61	36,475	-36,080
Sept.30	6,274.37	17,050	-19,425
Water year 1939-40	-	-	-35,635

Henrys Fork near Island Park, Idaho

Location.- Water-stage recorder, lat. 44°25', long. 111°24', in SW¼ sec. 28, T. 13 N., R. 43 E., an eighth of a mile upstream from Buffalo River, an eighth of a mile downstream from Island Park Dam, and 2 miles west of Island Park.

Drainage area.- 478 square miles.

Records available.- January 1933 to September 1940.

Extremes.- Maximum discharge during year, 1,940 second-feet July 17 (gage height, 5.22 feet); minimum, 6 second-feet Dec. 20 to Jan. 17 (gage height, 1.18 feet).
1933-40: Maximum discharge, that of July 17, 1940; minimum, 1 second-foot Nov. 16 to Dec. 7, 1938.

Remarks.- Records good. Flow regulated by Henrys Lake (see p. 40), and Island Park Reservoir (see p. 44).

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	452	424	28	6	7	345	10	840	566	1,020	1,400	1,190
2	452	424	29	6	7	345	10	786	555	1,010	1,400	1,190
3	465	424	29	6	7	345	24	766	564	1,010	1,400	1,180
4	494	424	29	6	72	345	63	776	574	1,010	1,380	1,180
5	498	424	30	6	126	275	88	732	583	1,010	1,380	1,170
6	498	424	30	6	126	55	110	718	592	1,010	1,370	1,170
7	522	424	30	6	213	194	137	708	597	1,000	1,360	1,170
8	536	424	30	6	345	194	169	683	679	1,000	1,360	1,160
9	536	424	30	6	345	183	213	674	635	1,000	1,360	1,160
10	536	424	27	6	345	166	243	679	621	1,190	1,360	1,090
11	480	424	27	6	345	153	267	688	597	1,250	1,360	1,060
12	498	411	27	6	345	140	287	732	583	1,350	1,360	978
13	447	398	27	6	345	140	312	786	564	1,410	1,360	878
14	447	393	27	6	345	140	346	830	550	1,630	1,360	861
15	447	219	27	6	345	140	393	850	531	1,740	1,360	861
16	438	54	27	6	345	140	420	850	512	1,730	1,100	861
17	434	54	27	6	345	140	434	835	494	1,850	456	861
18	434	56	27	7	345	140	452	825	475	1,900	1,350	626
19	424	45	27	7	345	140	494	811	456	1,880	1,350	498
20	416	37	21	7	345	140	574	766	447	1,710	1,340	498
21	416	37	6	7	345	80	674	752	434	1,550	1,330	503
22	420	37	6	7	345	9	708	742	545	1,460	1,320	498
23	420	40	6	7	345	9	796	722	732	1,460	1,320	484
24	424	32	6	7	345	10	865	703	978	1,460	1,230	470
25	438	28	6	7	345	10	885	683	1,070	1,460	1,210	470
26	452	28	6	7	345	10	958	674	1,020	1,460	1,210	461
27	461	28	6	7	345	10	973	659	1,010	1,540	1,210	452
28	461	27	6	7	345	10	952	645	1,030	1,650	1,210	452
29	452	27	6	7	345	10	952	635	1,030	1,640	1,200	452
30	434	27	6	7	-	10	895	626	1,020	1,590	1,190	452
31	424	-	6	7	-	10	-	611	-	1,390	1,190	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14,256	536	416	460	28,280
November	6,642	424	27	221	13,170
December	622	30	6	20.1	1,230
Calendar year 1939	145,478	1,190	3	399	288,600
January	200	7	6	6.5	397
February	8,148	345	7	281	16,160
March	4,038	345	9	130	8,010
April	13,704	973	10	457	27,180
May	22,787	850	611	735	45,200
June	20,044	1,070	434	668	39,760
July	43,370	1,900	1,000	1,399	86,020
August	39,786	1,400	456	1,283	78,910
September	24,336	1,190	452	811	48,270
Water year 1939-40	197,933	1,900	6	541	392,600

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Henrys Fork at De Winers Ranch, near Island Park, Idaho

Location.- Water-stage recorder, lat. 44°24', long. 111°24', in SW¼ sec. 8, T. 12 N., R. 43 E., 3 miles downstream from Buffalo River and 4 miles southwest of Island Park.

Drainage area.- 524 square miles.

Records available.- May 1935 to December 1940 (discontinued).

Extremes.- 1939-40: Maximum discharge during water year, 2,150 second-feet July 17-20 (gage height, 3.11 feet); minimum, 199 second-feet Dec. 21 (gage height, 1.13).
1940: Maximum discharge during period October to December, 702 second-feet Oct. 3 (gage height, 2.12 feet); minimum, not determined, probably occurred during period of ice effect.
1935-40: Maximum discharge, that of July 17-20, 1940; minimum, 188 second-feet Nov. 16, 17, 1938 (gage height, 1.02 feet).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Henrys Lake (see p. 40) and Island Park Reservoir (see p. 44).

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

Discharge, in second-feet, 1939-40

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	690	638	220		a221	558	252	1,180	819	1,290	1,660	1,440
2	690	638	220		a222	558	252	1,130	799	1,290	1,650	1,440
3	715	638	220		a223	558	252	1,120	799	1,290	1,640	1,430
4	741	647	220		a289	558	280	1,130	809	1,290	1,620	1,430
5	750	647	220		a343	516	331	1,080	819	1,290	1,620	1,420
6	759	647	220		a342	a254	381	1,040	829	1,290	1,610	1,420
7	777	647	220		a428	a427	420	1,020	839	1,280	1,610	1,420
8	777	647	220		a559	420	476	1,000	940	1,280	1,600	1,420
9	768	647	220		558	400	540	982	869	1,280	1,600	1,420
10	768	647	220		566	387	565	1,000	839	1,450	1,600	1,350
11	715	647	220		558	374	574	1,020	809	1,520	1,600	1,320
12	690	630	220		558	362	591	1,070	790	1,610	1,600	1,230
13	690	622	214		566	362	626	1,110	760	1,670	1,600	1,120
14	690	622	214		566	362	692	1,130	770	1,880	1,600	1,100
15	690	441	209	a216	566	356	750	1,130	740	1,980	1,600	1,090
16	681	246	220		558	356	760	1,130	702	1,980	1,360	1,100
17	681	246	220		558	356	770	1,120	692	2,090	697	1,100
18	681	246	220		558	356	869	1,090	673	2,150	1,590	839
19	664	230	220		558	356	972	1,070	644	2,150	1,580	721
20	656	225	214		558	356	1,040	1,010	644	1,980	1,580	730
21	656	214	199		558	309	1,080	1,000	635	1,800	1,580	721
22	656	220	209		558	230	1,070	982	750	1,720	1,550	711
23	656	220	204		558	230	1,160	972	950	1,720	1,540	692
24	656	220	a204		558	230	1,220	950	1,210	1,720	1,460	682
25	672	220	a204		558	236	1,230	930	1,300	1,720	1,450	692
26	681	220	a204		558	246	1,340	930	1,280	1,720	1,450	682
27	698	220	a204		558	263	1,340	910	1,260	1,790	1,450	682
28	690	220	a204		566	246	1,310	890	1,290	1,890	1,450	692
29	681	220	a211		558	246	1,340	879	1,300	1,890	1,450	682
30	656	220	a211		-	246	1,290	869	1,290	1,850	1,440	692
31	647	-	a211		-	252	-	839	-	1,640	1,440	-

a No gage-height record; discharge interpolated or computed on basis of records for Henrys Fork and Buffalo River near Island Park.

9-238 September 1937 UNITED STATES DEPARTMENT OF THE INTERIOR Geolog al Survey

Discharge, in second-feet, of Henrys Fork at De Winers Ranch, near Island Park, Idaho, 1939-40--Contd.

1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	692	635	188									
2	682	644	188									
3	682	644	188									
4	682	635	188									
5	682	635	188									
6	673	635	188									
7	673	635	194									
8	673	635	188									
9	673	635	188									
10	673	626	(*)									
11	663	626										
12	654	a630										
13	644	*635										
14	644	635										
15	644	439										
16	644	188										
17	644	188										
18	644	194										
19	644	b194										
20	644	b194	b190									
21	635	194										
22	635	194										
23	635	b193										
24	635	a192										
25	635	a192										
26	635	a191										
27	644	a190										
28	644	a189										
29	644	188										
30	635	188										
31	635	-										

*Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated or computed on basis of records for Henrys Fork and Buffalo River near Island Park.
b Stage-discharge relation affected by ice.

Monthly discharge, in second-feet, 1939-40

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1939	21,622	777	647	697	42,890
November	12,792	647	214	426	25,370
December	6,636	220	199	214	13,160
Calendar year 1939	229,532	1,470	199	629	455,300
January 1940	6,696	-	-	216	13,280
February	14,385	566	221	496	28,530
March	10,966	558	230	354	21,750
April	23,773	1,340	252	792	47,150
May	31,713	1,180	839	1,023	62,900
June	26,850	1,300	635	895	53,260
July	51,500	2,150	1,280	1,661	102,100
August	47,277	1,660	697	1,525	93,770
September	31,468	1,440	682	1,049	62,420
Water year 1939-40	285,678	2,150	199	781	566,600
October 1940	20,266	692	635	654	40,200
November	12,193	644	188	406	24,180
December	5,878	-	-	190	11,660
Calendar year 1940	282,965	2,150	188	773	561,200

Henrys Fork at Warm River, Idaho

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

Drainage area.- 660 square miles.

Records available.- September 1910 to March 1915, April 1918 to September 1940.

Extremes.- Maximum discharge during year, 2,190 second-feet July 20 (gage height, 6.28 feet); minimum, 218 second-feet Jan. 19 (gage height, 3.17 feet).
1910-15, 1918-40: Maximum discharge, 3,540 second-feet May 18, 1927 (gage height, 7.55 feet); minimum, that of Jan. 19, 1940.

Remarks.- Records good. Flow regulated by Henrys Lake (see p. 40) and Island Park Reservoir (see p. 44). Some water diverted above station for irrigation of meadows on headwaters.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	837	779	403	412	407	722	448	1,410	1,040	1,380	1,820	1,590
2	850	773	403	416	390	710	448	1,350	1,010	1,400	1,820	1,590
3	863	773	403	425	407	704	435	1,370	1,020	1,400	1,820	1,590
4	870	779	399	412	394	698	439	1,390	1,040	1,400	1,820	1,570
5	883	779	403	407	439	710	481	1,380	1,040	1,400	1,820	1,570
6	931	779	403	390	515	529	534	1,310	1,060	1,400	1,820	1,560
7	917	785	403	378	505	462	580	1,270	1,040	1,410	1,820	1,550
8	917	785	403	373	634	601	656	1,230	1,170	1,410	1,820	1,540
9	910	785	407	390	741	575	735	1,220	1,130	1,410	1,810	1,540
10	897	785	407	399	748	549	766	1,220	1,060	1,440	1,790	1,510
11	890	792	407	365	735	539	766	1,240	1,030	1,620	1,780	1,450
12	824	792	407	369	735	500	785	1,270	993	1,660	1,780	1,490
13	824	773	403	369	735	505	824	1,320	965	1,780	1,780	1,320
14	817	773	407	353	741	510	924	1,320	937	1,850	1,780	1,280
15	817	773	399	399	741	505	1,040	1,310	931	2,060	1,780	1,240
16	805	520	421	390	710	505	979	1,300	876	2,060	1,780	1,240
17	785	444	416	394	729	510	1,010	1,300	870	2,080	1,170	1,220
18	785	430	407	337	722	500	1,100	1,260	870	2,180	1,260	1,220
19	785	430	361	329	722	500	1,290	1,240	843	2,180	1,770	958
20	773	421	386	403	722	505	1,430	1,220	830	2,180	1,760	938
21	766	403	416	399	716	505	1,440	1,180	824	1,990	1,760	917
22	766	403	390	399	729	425	1,340	1,170	817	1,920	1,750	903
23	766	394	f399	416	735	386	1,380	1,150	993	1,890	1,740	890
24	766	416	a402	394	704	386	1,450	1,140	1,180	1,880	1,710	876
25	766	399	a404	390	710	390	1,470	1,120	1,380	1,890	1,630	870
26	785	399	a406	367	710	416	1,590	1,110	1,400	1,880	1,620	870
27	792	407	a409	486	729	476	1,570	1,110	1,360	1,880	1,620	856
28	811	403	f412	444	741	448	1,550	1,080	1,360	1,980	1,610	883
29	811	407	a412	425	741	435	1,560	1,060	1,360	1,990	1,600	890
30	798	403	f421	412	-	439	1,490	1,060	1,360	1,990	1,600	883
31	779	-	412	407	-	444	-	1,040	-	1,850	1,590	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	25,586	931	766	825	50,750
November	17,984	792	394	599	35,670
December	12,531	421	361	404	24,850
Calendar year 1939	294,135	1,770	305	806	583,400
January	12,349	486	329	398	24,490
February	18,987	748	390	655	37,660
March	16,089	722	386	519	31,910
April	30,510	1,590	435	1,017	60,520
May	38,150	1,410	1,040	1,231	75,670
June	31,789	1,400	817	1,060	63,050
July	54,840	2,180	1,380	1,769	108,800
August	53,030	1,820	1,170	1,711	105,200
September	36,804	1,590	856	1,227	73,000
Water year 1939-40	348,649	2,180	329	953	691,600

a No gage-height record; discharge interpolated.
f Fragmentary gage-height record; discharge computed from partly estimated gage-height record.

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Henrys Fork near Ashton, Idaho

Location.- Water-stage recorder, lat. 44°05', long. 111°30', in sec. 28, T. 9 N., R. 42 E., a quarter of a mile downstream from power plant and 3 miles west of Ashton.

Drainage area.- 1,030 square miles.

Records available.- August 1902 to June 1909, April 1920 to September 1940.

Extremes.- Maximum discharge during year, 2,950 second-feet Apr. 26, 27 (gage height, 7.03 feet); minimum, 338 second-feet Dec. 2, 5 (gage height, 5.25 feet), owing to regulation by power plant; minimum daily discharge, 494 second-feet Jan. 19.
1902-9, 1920-40: Maximum discharge, 6,220 second-feet May 7, 1925; minimum, 65 second-feet Oct. 16, 1935 (gage height, 4.59 feet), owing to regulation by power plant; minimum daily discharge, 440 second-feet Dec. 5, 1931 (gage height, 5.29 feet).

Remarks.- Records excellent. Flow regulated at power plant above station and by Henrys Lake (see p. 40) and Island Park Reservoir (see p. 44). Some water diverted above station for irrigation of meadows on headwaters.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,130	1,100	650	707	646	1,010	888	2,180	1,400	1,770	2,060	1,920
2	1,140	1,120	668	704	636	982	978	2,200	1,470	1,830	2,060	1,920
3	1,160	1,090	632	722	686	1,040	817	2,300	1,480	1,770	2,060	1,920
4	1,190	1,090	679	665	696	1,000	878	2,380	1,580	1,730	2,060	1,940
5	1,200	1,090	648	665	760	1,010	893	2,300	1,520	1,730	2,060	1,920
6	1,270	1,090	673	656	847	823	1,020	2,180	1,560	1,720	2,060	1,880
7	1,240	1,090	664	656	841	734	1,030	2,060	1,440	1,680	2,060	1,960
8	1,270	1,090	683	646	866	976	964	2,040	1,700	1,730	2,060	1,840
9	1,210	1,090	725	665	1,060	853	1,230	2,040	1,730	1,680	2,060	1,840
10	1,210	1,080	683	656	1,070	873	1,390	2,060	1,560	1,660	2,060	1,860
11	1,210	1,080	683	656	1,050	845	1,190	2,120	1,470	1,940	2,060	1,750
12	1,160	1,060	664	608	1,040	778	1,120	2,140	1,420	1,960	2,060	1,720
13	1,120	1,060	640	618	1,010	795	1,340	2,200	1,380	2,100	2,060	1,610
14	1,130	1,050	578	608	1,020	767	1,530	2,180	1,280	2,140	2,060	1,550
15	1,130	1,060	676	656	1,030	828	1,580	2,120	1,300	2,400	2,080	1,480
16	1,140	1,000	707	665	913	828	1,590	2,080	1,240	2,420	2,040	1,480
17	1,120	753	707	656	1,060	812	1,530	2,060	1,200	2,400	1,610	1,480
18	1,120	709	656	562	1,060	806	1,610	1,980	1,210	2,580	1,480	1,500
19	1,120	695	636	494	1,010	806	1,960	1,920	1,190	2,580	1,610	1,240
20	1,100	655	636	665	1,010	806	2,280	1,860	1,160	2,580	2,040	1,280
21	1,080	685	665	589	1,020	811	2,340	1,810	1,130	2,300	2,120	1,200
22	1,090	685	665	580	948	732	2,100	1,770	1,130	2,180	2,060	1,200
23	1,090	652	618	696	1,080	736	2,180	1,730	1,270	2,180	2,060	1,140
24	1,100	678	676	553	933	707	2,280	1,700	1,580	2,180	2,040	1,130
25	1,090	688	618	665	953	775	2,340	1,660	1,630	2,160	1,980	1,130
26	1,130	671	608	707	1,050	803	2,570	1,680	1,750	2,180	1,960	1,130
27	1,130	673	618	707	1,010	911	2,530	1,650	1,720	2,180	1,960	1,090
28	1,130	660	580	696	1,030	891	2,440	1,580	1,680	2,320	1,940	1,190
29	1,130	653	656	686	1,050	746	2,470	1,580	1,720	2,340	1,900	1,160
30	1,140	679	686	646	-	833	2,340	1,520	1,720	2,340	1,900	1,270
31	1,100	-	676	646	-	902	-	1,560	-	2,220	1,920	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	35,580	1,270	1,080	1,148	70,570
November	26,776	1,120	652	893	53,110
December	20,354	725	578	657	40,370
Calendar year 1939	431,366	2,830	500	1,182	855,600
January	20,101	722	494	648	39,870
February	27,385	1,080	636	944	54,320
March	26,219	1,040	707	846	52,000
April	49,408	2,570	817	1,647	98,000
May	60,640	2,380	1,520	1,956	120,300
June	43,620	1,750	1,130	1,454	86,520
July	65,010	2,590	1,660	2,097	128,900
August	61,540	2,080	1,480	1,985	122,100
September	45,630	1,940	1,090	1,521	90,510
Water year 1939-40	462,263	2,590	494	1,318	956,600

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 1940. Records of discharge of canals are combined to show total diverted flow.

During July and August, records computed from daily staff-gage readings ard are good. During May, June, and September, records computed or interpolated from daily or bi-weekly staff-gage readings and are fair.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								861	1,140	925	938	523
2								890	1.120	885	947	523
3								890	1,020	833	951	513
4								974	982	828	936	510
5								945	902	803	948	502
6								960	699	782	866	566
7								956	715	779	832	560
8								997	756	767	868	548
9								1,170	704	845	873	501
10								1,200	654	919	896	477
11								1,260	704	1,070	858	470
12								1,280	836	1,080	854	409
13								1,290	903	1,060	888	378
14								1,300	954	1,070	886	371
15								1,290	1,060	1,160	827	372
16								1,290	1,110	1,240	777	416
17								1,300	1,140	1,140	796	464
18								1,280	1,130	1,270	729	465
19								1,290	1,160	1,160	765	471
20								1,290	1,150	1,030	782	460
21								1,320	1,080	1,060	779	449
22								1,320	903	1,160	736	387
23								1,340	972	1,220	693	358
24								1,370	953	1,220	693	355
25								1,390	944	1,230	667	411
26								1,350	1,170	1,250	625	306
27								1,320	1,150	1,100	578	296
28								1,200	1,120	1,110	554	350
29								1,220	1,130	1,050	551	278
30								1,170	1,110	978	534	257
31								1,190	-	940	544	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	36,903	1,390	861	1,190	73,200
June	29,371	1,170	654	979	58,260
July	31,964	1,270	767	1,031	63,400
August	24,171	951	534	780	47,940
September	12,946	560	257	432	25,680
The period	-	-	-	-	268,500

3-13
9-232 February 1936

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

GOVERNMENT PRINTING OFFICE 1941—O-845555

Henrys Fork at St. Anthony, Idaho

Location.- Water-stage recorder, lat. 43°58', long. 111°41', in sec. 1, T. 7 N., R. 40 E., half a mile upstream from bridge on main street of St. Anthony.

Drainage area.- 1,730 square miles.

Records available.- March 1919 to September 1940 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 3,860 second-feet June 2 (gage height, 4.95 feet); minimum recorded, 434 second-feet June 23 (gage height, 2.76 feet).
1919-40: Maximum discharge recorded, 9,030 second-feet May 8, 1925 (gage height, 6.70 feet); minimum daily recorded, 413 second-feet July 22, 1931 (gage height, 2.78 feet).

Remarks.- Records good. Diversions above station for irrigation. Flow regulated by power plant 17 miles above station and by Henrys Lake (see p. 40), Grassy Lake (see p. 60), and Island Park Reservoir (see p. 44).

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								2,380	3,380	972	1,310	1,520
2								2,490	3,480	1,190	1,300	1,510
3								2,940	2,800	1,180	1,310	1,560
4								3,280	2,560	1,130	1,310	1,610
5								3,180	2,870	1,150	1,310	1,630
6								2,940	3,330	1,130	1,420	1,540
7								2,400	2,890	1,110	1,510	1,510
8								2,320	3,200	1,070	1,480	1,520
9								2,540	3,060	1,010	1,430	1,520
10								2,650	2,380	897	1,430	1,610
11								2,870	2,000	994	1,420	1,540
12								3,060	1,980	1,040	1,420	1,440
13								3,280	2,450	1,030	1,360	1,340
14								3,260	2,750	1,010	1,370	1,290
15								3,110	2,470	1,220	1,400	1,190
16								3,060	2,060	1,210	1,430	1,130
17								3,060	1,660	1,280	1,260	1,110
18								2,820	1,300	1,360	1,050	1,120
19								2,650	1,080	1,480	1,080	1,010
20								2,450	951	1,680	1,340	1,080
21								2,610	767	1,420	1,440	1,100
22								2,650	539	1,150	1,490	1,160
23								2,580	554	1,050	1,580	1,100
24								2,720	767	1,020	1,610	1,070
25								2,940	816	1,050	1,560	983
26								3,230	856	1,110	1,610	1,070
27								3,480	856	1,240	1,640	1,050
28								3,530	826	1,440	1,640	1,150
29								3,380	846	1,580	1,630	1,210
30								3,360	846	1,580	1,580	1,290
31								3,500	-	1,510	1,520	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	90,720	3,530	2,320	2,926	179,900
June	56,324	3,480	539	1,877	111,700
July	37,293	1,680	897	1,203	73,970
August	44,240	1,640	1,050	1,427	87,750
September	38,963	1,630	983	1,299	77,280
The period	-	-	-	-	530,600

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

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

Between St. Anthony and Rexbury gaging stations, four canals divert water from Henrys Fork for irrigation. Records available for part of each irrigation season from 1919 to 1940. Records of discharge at canals are combined to show total diverted flow.

During July and August, records computed from daily staff-gage readings ard are good. During May, June, and September, records computed or interpolated from daily or bi-weekly staff-gage readings and are fair.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								761	956	651	672	618
2								751	955	489	677	618
3								807	825	470	681	591
4								822	696	470	702	570
5								820	624	512	697	549
6								828	516	575	729	437
7								805	576	682	730	434
8								845	566	780	702	425
9								963	516	764	638	416
10								1,000	590	766	650	405
11								1,080	709	843	657	412
12								1,150	733	870	654	396
13								1,200	703	880	661	463
14								1,180	755	933	685	454
15								1,200	728	915	618	450
16								1,190	924	841	585	387
17								1,190	887	842	617	375
18								1,180	836	787	634	384
19								1,160	885	804	632	393
20								1,160	896	814	666	392
21								1,150	769	794	574	454
22								1,120	736	809	545	309
23								1,150	768	835	532	275
24								1,140	896	796	547	277
25								1,140	945	794	527	289
26								1,110	879	790	525	322
27								1,070	847	762	503	321
28								999	826	690	507	324
29								980	799	680	537	324
30								970	765	668	524	323
31								1,000	-	658	622	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	31,921	1,200	751	1,030	63,320
June	23,106	956	516	770	45,830
July	22,964	933	470	741	45,550
August	19,230	730	503	620	38,140
September	12,387	618	275	413	24,570
The period	-	-	-	-	217,400

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Henrys Fork near Rexburg, Idaho

Location.- Water-stage recorder, lat. 43°50', long. 111°54', in sec. 30, T. 6 N., R. 39 E., just downstream from highway bridge, and downstream from all tributaries, and 7 miles west of Rexburg.

Drainage area.- 3,010 square miles.

Records available.- April 1909 to September 1940.

Extremes.- Maximum discharge during year, 4,350 second-feet June 9 (gage height, 7.38 feet); minimum, 645 second-feet June 30 (gage height, 2.88 feet).
1909-40: Maximum discharge, 9,490 second-feet June 29, 1927 (gage height, 9.90 feet); minimum, 183 second-feet March 24-28, 1934 (gage height, 1.45 feet).

Remarks.- Records good except those for periods of ice effect, which are fair. Flow regulated by power plant at Ashton and by Henrys Lake (see p. 40), Island Park Reservoir (see p. 44), and by Grassy Lake (see p. 60). Many diversions above station for irrigation. No diversions from Henrys Fork below station.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,080	1,760	1,200	b1,450	b1,250	1,940	1,450	2,700	3,220	680	1,220	1,290
2	1,110	1,770	1,190	b1,480	b1,250	1,860	1,400	2,470	3,220	1,030	1,100	1,280
3	1,250	1,770	1,200	b1,500	b1,260	1,800	1,400	2,510	3,410	1,320	1,080	1,290
4	1,340	1,760	1,190	b1,500	b1,330	1,720	1,230	2,840	3,130	1,330	1,060	1,400
5	1,410	1,750	1,200	b1,450	b1,380	1,700	1,230	3,200	3,060	1,290	1,050	1,440
6	1,450	1,770	1,160	1,360	b1,440	*1,680	1,250	3,170	3,800	1,220	1,060	1,420
7	1,610	1,710	1,160	1,310	b1,490	1,490	1,410	2,860	4,210	1,070	1,140	1,360
8	1,700	1,660	1,180	1,280	b1,490	1,430	1,300	2,460	4,030	1,000	1,190	1,420
9	1,760	1,650	1,200	1,310	b1,520	1,620	1,440	2,280	4,260	934	1,190	1,410
10	1,750	1,630	1,220	1,350	b1,660	1,520	1,460	2,360	4,100	808	1,150	1,440
11	1,770	1,610	1,240	1,290	b1,680	1,440	1,610	2,380	3,410	720	1,140	1,490
12	1,820	1,600	*1,220	1,270	b1,630	1,410	1,510	2,570	2,890	715	1,140	1,420
13	1,780	1,630	1,200	1,220	b1,630	1,340	1,370	2,780	2,720	710	1,140	1,380
14	1,750	1,590	1,160	b1,220	b1,650	1,350	1,560	3,030	2,810	670	1,110	1,260
15	1,710	1,540	1,150	b1,220	b1,650	1,340	1,800	2,980	2,810	695	1,160	1,200
16	1,710	1,490	1,170	b1,220	b1.630	1,360	1,970	2,880	2,450	857	1,230	1,110
17	1,730	1,400	1,210	b1,220	1,560	1,360	1,960	2,840	2,060	940	1,230	1,020
18	1,710	1,240	1,210	b1,170	1,650	1,360	1,950	2,770	1,720	994	1,000	1,070
19	1,720	1,170	1,140		1,610	1,370	2,050	2,540	1,340	1,070	890	1,150
20	1,690	1,170	1,090		1,560	1,370	2,460	2,350	1,140	1,220	962	1,140
21	1,660	1,190	1,160		1,520	1,350	2,930	2,250	994	1,250	1,140	1,250
22	1,590	1,180	1,260	b1,140	1,530	1,320	2,980	2,380	879	994	1,290	1,350
23	1,570	1,170	1,200		1,570	1,250	2,700	2,270	770	818	1,340	1,390
24	1,520	1,170	1,230		1,610	1,240	2,760	2,210	720	755	1,420	1,340
25	1,520	1,190	1,260		1,600	1,210	2,720	2,300	690	750	1,450	1,270
26	1,570	1,190	1,280		1,520	1,320	2,870	2,500	715	765	1,460	1,310
27	1,680	1,190	b1,280		1,670	1,430	3,060	2,820	780	884	1,490	1,370
28	1,720	1,190	b1,280	b1,250	1,830	1,590	3,060	3,130	715	1,040	1,490	1,410
29	1,770	1,190	b1,280		1,890	1,620	3,150	3,230	675	1,220	1,450	1,550
30	1,790	1,190	b1,350		-	1,380	3,130	3,210	650	1,290	1,400	1,650
31	1,780	-	b1,400		-	1,380	-	3,230	-	1,300	1,340	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	50,020	1,820	1,080	1,614	99,210
November	43,520	1,770	1,170	1,451	86,320
December	37,670	1,400	1,090	1,215	74,720
Calendar year 1939	558,321	5,030	548	1,530	1,107,000
January	39,300	1,500	1,140	1,268	77,950
February	45,060	1,890	1,250	1,554	89,380
March	45,550	1,940	1,210	1,469	90,350
April	61,170	3,150	1,230	2,039	121,300
May	83,520	3,230	2,210	2,694	165,700
June	67,378	4,260	650	2,246	133,600
July	30,339	1,330	670	979	60,180
August	37,512	1,490	890	1,210	74,400
September	39,880	1,650	1,020	1,329	79,100
Water year 1939-40	580,919	4,260	650	1,587	1,152,000

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Buffalo River near Island Park, Idaho

Location.- Water-stage recorder, lat. 44°25', long. 111°23', in SE¼ sec. 28, T. 13 N., R. 43 E., half a mile upstream from mouth and 1 mile southwest of Island Park.

Drainage area.- 42 square miles; basin is porous lava and there may be underground flow into or from it.

Records available.- May 1935 to January 1941 (discontinued).

Extremes.- 1939-40: Maximum discharge during water year, 509 second-feet Apr. 19 (gage height, 1.20 feet); minimum, 167 second-feet Sept. 12 (gage height, 0.64 foot).
1940-41: Maximum discharge during period October to January, 195 second-feet Oct. 3 (gage height, 0.74 foot); minimum, 168 second-feet Dec. 10 (gage height, 0.64 foot).
1935-41: Maximum discharge, 638 second-feet Apr. 30, 1938 (gage height, 1.39 feet); minimum, 146 second-feet Oct. 30 to Nov. 2, Dec. 1-31, 1935.

Remarks.- Records good. Observer reports beaver dams on Tom Creek (tributary to Buffalo River) caused diversion of water from basin into Blue Creek (tributary to Henrys Fork) during November and December 1939; cold weather late in December 1939 froze the overflow channel and stopped the diversion. Underground leakage from Island Park Reservoir enters Buffalo River above station.

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

Discharge, in second-feet, 1939-41

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	182	185	177	189	a196	192	212	250	208	198	189	174
2	185	185	180	189	a197	192	208	250	212	205	189	174
3	185	185	182	189	198	192	208	265	208	205	189	174
4	182	185	182	189	a197	195	208	291	212	202	189	172
5	182	182	182	189	a196	195	215	284	208	202	189	174
6	185	182	182	189	a195	195	220	265	220	202	185	174
7	182	182	182	a190	a194	198	225	255	215	198	185	174
8	182	182	182	a190	a193	198	230	255	240	202	182	172
9	182	182	185	a190	*192	195	235	260	212	202	182	174
10	182	180	185	a192	198	195	230	265	202	202	180	174
11	182	180	185	a192	a196	a195	225	265	198	202	180	172
12	185	180	182	195	a194	a195	225	265	202	202	180	172
13	185	180	182	195	a192	195	230	260	202	208	180	174
14	189	180	182	a194	a190	195	255	255	215	205	180	174
15	189	177	*185	a193	a188	195	250	245	215	202	180	174
16	189	177	189	a192	a186	195	240	245	198	202	177	174
17	189	177	185	a192	185	195	265	245	205	202	177	174
18	192	174	185	a192	a187	195	345	235	208	198	177	174
19	189	172	182	a192	a189	195	398	225	205	198	177	177
20	189	172	182	192	a191	195	375	230	205	198	174	177
21	185	172	182	a192	a192	195	310	230	205	195	172	177
22	185	172	b182	a192	a193	195	260	220	208	198	174	177
23	185	172	b182	a192	a194	195	278	220	202	195	174	177
24	185	172	b182	a192	195	195	260	225	198	195	177	177
25	185	174	b182	a192	195	195	278	212	198	192	177	177
26	185	174	b182	a192	195	202	298	215	195	192	177	177
27	189	174	b182	192	195	212	291	212	192	192	177	177
28	192	177	b182	a192	192	208	278	208	192	192	177	180
29	192	177	189	a194	192	208	291	212	195	195	174	174
30	192	177	189	a195	-	208	260	208	195	192	174	177
31	192	-	189	a195	-	212	-	208	-	192	174	-

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

9-238 September 1937 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Discharge, in second-feet, of Buffalo River near Island Park, Idaho, 1939-41--Continued

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	180	194	181	177								
2	180	194	181	174								
3	182	194	181	-								
4	189	194	181	-								
5	189	194	181	-								
6	189	194	181	-								
7	189	194	181	-								
8	189	194	178	-								
9	189	194	178	-								
10	189	190	*178	-								
11	187	187	181	-								
12	187	187	181	-								
13	187	187	b180	-								
14	187	187	b180	-								
15	187	187	b179	-								
16	187	181	b178	-								
17	187	181	177	-								
18	187	181	177	-								
19	187	181	174	-								
20	187	181	174	-								
21	187	181	174	-								
22	190	178	177	-								
23	190	178	177	-								
24	190	178	180	-								
25	190	178	177	-								
26	190	178	177	-								
27	190	178	180	-								
28	190	181	174	-								
29	190	182	174	-								
30	190	184	177	-								
31	190	-	177	-								

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

Monthly discharge, in second-feet, 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1939	5,774	192	182	186	11,450
November	5,340	185	172	178	10,590
December	5,681	189	177	183	11,270
Calendar year 1939	75,282	430	172	206	149,300
January 1940	5,945	195	189	192	11,790
February	5,597	198	185	193	11,100
March	6,122	212	192	197	12,140
April	7,803	398	208	260	15,480
May	7,480	291	208	241	14,840
June	6,170	240	192	206	12,240
July	6,165	208	192	199	12,230
August	5,568	189	172	180	11,040
September	5,248	180	172	175	10,410
Water year 1939-40	72,893	398	172	199	144,600
October 1940	5,822	190	180	188	11,550
November	5,572	194	178	186	11,050
December	5,526	181	174	178	10,960
Calendar year 1940	73,018	398	172	200	144,800

Diversions from Fall River above gaging station near Squirrel, Idaho

Above Squirrel gaging station, three canals divert water from Fall River for irrigation. Records available for part of each irrigation season from 1919 to 1940. Records of discharge of canals computed from daily readings of staff gages and combined to show total diverted flow and are good.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	139	186	129	34
2								0	144	174	126	45
3								0	141	157	125	37
4								0	149	139	119	35
5								0	132	139	113	34
6								0	112	143	109	30
7								0	116	142	109	28
8								0	116	142	112	28
9								0	114	144	112	22
10								0	117	144	99	23
11								0	121	148	91	20
12								0	116	154	90	26
13								0	119	164	93	33
14								0	129	152	91	35
15								0	142	135	93	33
16								4	147	145	90	32
17								15	160	142	87	30
18								15	171	152	86	31
19								18	177	157	86	30
20								21	185	158	86	28
21								22	190	161	73	26
22								38	198	161	65	26
23								54	197	161	62	26
24								78	202	158	48	26
25								84	200	160	40	26
26								104	196	160	40	26
27								104	194	153	42	26
28								123	194	148	38	26
29								131	201	133	36	26
30								137	192	131	29	26
31								136	-	130	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	1,084	137	0	35.0	2,150
June	4,711	202	112	157	9,340
July	4,673	186	130	151	9,270
August	2,548	129	29	82.2	5,050
September	874	45	20	29.1	1,730
The period	-	-	-	-	27,540

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Fall River near Squirrel, Idaho

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

Drainage area.- 380 square miles.

Records available.- January 1904 to June 1909 and May 1918 to September 1940. August 1902 to December 1903, at Wilson's sawmill, 3 miles upstream.

Average discharge.- 27 years (1904-8, 1917-40), 744 second-feet (unadjusted).

Extremes.- Maximum discharge observed during year, 3,950 second-feet June 1 (gage height, 3.82 feet); minimum observed, 300 second-feet Jan. 19 (gage height, 1.10 feet).
1904-9, 1918-40: Maximum discharge observed, 6,440 second-feet June 27, 1927; minimum observed, 72 second-feet Feb. 9, 1930.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow since October 1939 regulated by Grassy Lake (see p. 60).

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	468	452	391	417	b380	410	445	1,030	3,950	468	460	359
2	498	452	391	430	b384	384	445	1,330	3,680	539	460	359
3	529	452	391	417	b384	384	460	1,610	2,720	521	452	365
4	513	452	391	417	b384	384	460	1,860	2,490	513	468	391
5	490	438	391	417	b384	384	475	1,820	2,650	561	460	384
6	545	438	391	417	b384	398	490	1,800	2,720	438	452	378
7	628	438	391	417	384	398	490	1,380	2,400	424	445	365
8	569	438	391	404	378	372	490	1,650	2,460	424	445	365
9	513	438	391	404	372	372	537	1,870	1,990	417	430	372
10	505	391	445	417	372	372	505	2,050	1,640	410	438	372
11	482	398	417	417	372	372	460	2,330	1,440	378	438	365
12	482	404	404	404	372	372	460	2,430	1,780	334	438	359
13	468	404	404	404	372	372	475	2,590	2,560	365	438	365
14	468	410	404	b390	372	347	561	2,620	3,090	378	438	398
15	468	410	417	b380	372	347	733	2,560	2,990	331	438	365
16	468	417	430	b370	372	359	697	2,650	2,680	334	438	359
17	468	417	404	b360	372	372	679	2,680	2,360	378	438	359
18	468	417	378	b330	372	372	915	2,520	1,610	378	438	372
19	460	404	365	b300	372	359	790	2,460	1,810	475	438	391
20	452	404	378	b310	372	359	790	2,430	1,810	460	430	628
21	452	404	391	b310	372	359	915	2,620	1,140	468	445	577
22	452	404	391	b320	372	372	982	2,680	1,020	460	460	561
23	452	404	378	b320	372	384	1,030	2,750	800	445	460	537
24	452	417	391	b325	359	384	1,080	2,990	636	430	468	529
25	452	417	378	b340	372	398	1,330	3,220	602	378	475	529
26	452	417	378	b340	384	410	1,400	3,400	569	445	475	521
27	452	404	378	b350	410	424	1,430	3,580	561	445	468	521
28	452	391	378	b360	424	438	1,460	3,580	529	460	468	561
29	468	391	b380	b370	410	452	1,460	3,400	513	475	460	585
30	452	391	b385	b370	-	452	1,080	3,430	438	468	372	553
31	452	-	b400	b370	-	452	-	3,430	-	468	365	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14,930	628	452	482	29,610
November	12,514	452	391	417	24,820
December	12,193	445	365	393	24,180
Calendar year 1939	263,418	2,670	365	722	522,500
January	11,597	430	300	374	23,000
February	11,001	424	359	380	21,820
March	12,014	452	347	388	23,830
April	23,524	1,460	445	784	46,660
May	76,750	3,580	1,030	2,476	152,200
June	55,638	3,950	438	1,855	110,400
July	13,638	561	365	440	27,050
August	13,798	475	365	445	27,370
September	13,145	628	359	438	26,070
Water year 1939-40	270,742	3,950	300	740	537,000

b Stage-discharge relation affected by ice.

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

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

Between Squirrel and Chester gaging stations, nine canals divert water from Fall River for irrigation. Records available for part of each irrigation season from 1919 to 1940. Records of discharge of canals are combined to show total diverted flow.

During July and August, records computed from daily staff-gage readings ard are good. During May, June, and September, records computed or interpolated from daily or bi-weekly staff-gage readings and are fair.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								210	823	437	324	214
2								216	784	453	289	215
3								230	748	451	291	188
4								232	713	437	293	193
5								256	703	438	252	189
6								270	583	417	234	176
7								279	499	410	237	163
8								194	484	407	237	159
9								203	456	413	240	157
10								306	459	416	239	156
11								369	471	422	303	142
12								429	540	440	303	315
13								490	584	406	303	318
14								513	686	391	256	332
15								520	731	392	247	324
16								589	760	409	247	316
17								575	784	394	223	316
18								597	814	390	216	321
19								643	829	424	217	334
20								718	811	429	282	335
21								730	783	429	267	291
22								742	821	422	259	295
23								789	786	440	223	300
24								793	631	437	213	301
25								784	549	436	197	304
26								799	474	282	191	300
27								808	452	275	212	280
28								784	444	261	205	279
29								747	485	288	203	278
30								737	463	331	228	278
31								667	-	325	192	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	16,219	808	194	523	32,170
June	19,152	829	444	639	37,990
July	12,302	453	261	397	20,400
August	7,623	324	191	248	15,120
September	7,769	335	142	259	15,410
The period	-	-	-	-	121,100

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Fall River near Chester, Idaho

Location.- Water-stage recorder, lat. 44°01', long. 111°34', in sec. 13, T. 8 N., R. 41 E., half a mile upstream from mouth and 2 miles north of Chester.

Drainage area.- 560 square miles.

Records available.- April 1920 to September 1940 (irrigation seasons only).

Extremes.- Maximum discharge during period May to September, 3,420 second-feet May 28 (gage height, 4.85 feet); minimum, 26 second-feet July 14 (gage height, 1.03 feet). 1920-40: Maximum discharge, 6,380 second-feet June 27, 1927 (gage height, 6.60 feet); minimum, 9 second-feet Aug. 7, 1923 (gage height, 1.01 feet).

Remarks.- Records excellent. Flow since October 1939 regulated by Grassy Lake (see p. 60). Station is below all diversions from Fall River for irrigation.

Rating table, Apr. 30 to Sept. 30, 1940 (gage height, in feet, and discharge, in second-feet)

1.0	23	2.3	376	4.0	2,050
1.2	44	2.6	555	4.5	2,840
1.4	75	2.9	780	5.0	3,670
1.7	144	3.2	1,060		
2.0	239	3.5	1,380		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								1,060	3,020	81.	170	179
2								1,270	3,020	164	173	170
3								1,660	2,180	150	186	192
4								1,940	1,930	134	186	222
5								1,900	2,220	187	202	243
6								1,720	2,220	111	232	236
7								1,400	2,020	102	239	239
8								1,440	2,110	89	232	243
9								1,770	1,760	8.	229	239
10								1,940	1,340	72	232	247
11								2,110	1,160	58	199	199
12								2,280	1,340	10	183	109
13								2,410	1,820	33	173	113
14								2,380	2,260	27	199	128
15								2,260	2,140	34	218	113
16								2,310	1,730	33	219	111
17								2,330	1,460	33	225	106
18								2,140	1,080	31	236	111
19								2,040	888	61	232	136
20								1,920	780	103	208	222
21								2,120	597	103	205	311
22								2,200	298	83	236	288
23								2,220	179	63	255	255
24								2,390	118	61	288	251
25								2,620	144	61	297	247
26								2,860	156	123	307	247
27								3,030	141	215	293	251
28								3,030	123	231	284	316
29								2,890	100	257	279	330
30							1,050	2,920	73	192	225	371
31							-	2,900	-	172	189	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	67,460	3,030	1,060	2,176	133,800
June	38,407	3,020	73	1,280	76,180
July	3,245	236	27	105	6,440
August	7,028	307	170	227	13,940
September	6,425	371	106	214	12,740
The period	-	-	-	-	243,100

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Grassy Lake near Moran, Wyo.

Location.- Mercury pressure gage, lat. 44°08', long. 110°49', in gate house at dam on Grassy Creek, about in sec. 7, T. 48 N., R. 116 W. (unsurveyed), half a mile upstream from mouth and 24 miles northwest of Moran. Datum of gage is at mean sea level (levels by Bureau of Reclamation).
Drainage area.- 12 square miles, including basin of Cascade Creek, waters from which are diverted into Grassy Lake.
Records available.- October 1939 to September 1940.
Extremes.- Maximum contents observed during year, 12,332 acre-feet July 18 (elevation, 7,200.5 feet); no contents prior to Oct. 18.
Remarks.- Reservoir is formed by earth-fill, rock-faced dam. Storage began Oct. 18, 1939. Capacity, 15,182 acre-feet between elevations 7,135.0 feet (sill of trash rack) and 7,210.0 feet (crest of spillway) above mean sea level. Water is used for irrigation of lands in Fremont-Madison irrigation district. Gage read once daily about 7 a.m. during irrigation season and occasionally during balance of year, contents are computed as of those times.
Cooperation.- Gage-height record and capacity table furnished by Bureau of Reclamation.

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

7,135	0	7,160	2,944	7,185	8,204	7,210	15,182
7,140	384	7,165	3,837	7,190	9,465	7,215	16,788
7,145	869	7,170	4,821	7,195	10,791		
7,150	1,458	7,175	5,888	7,200	12,187		
7,155	2,151	7,180	7,015	7,205	13,655		

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	82	-	-	-	-	-	3,029	8,979	-	9,361	3,808
2	-	-	-	-	1,330	1,792	-	-	9,205	-	9,129	3,818
3	-	-	-	-	-	-	-	3,148	-	-	8,929	3,827
4	-	-	-	-	-	-	-	3,217	-	-	8,729	3,846
5	-	-	-	968	-	-	-	3,271	10,359	-	8,529	3,856
6	-	169	-	-	-	-	2,301	3,289	-	-	8,304	3,875
7	-	-	-	-	-	-	-	3,379	10,953	-	8,107	3,894
8	-	-	-	-	-	1,876	-	-	11,258	-	7,891	3,922
9	-	-	-	-	-	-	-	3,523	11,594	-	7,699	-
10	-	-	-	-	-	-	-	3,613	11,846	-	7,483	3,941
11	-	-	-	-	-	-	-	3,742	12,042	-	7,280	3,960
12	-	-	-	-	1,464	-	-	3,894	12,187	-	7,084	3,979
13	-	-	-	-	-	-	-	4,065	12,187	-	6,877	3,989
14	-	-	-	-	-	-	-	4,280	12,187	-	6,682	3,998
15	-	289	565	1,102	-	-	-	4,520	12,187	-	6,475	4,008
16	-	-	-	-	-	2,031	-	4,740	-	-	6,273	-
17	-	-	-	-	-	-	-	4,989	-	-	6,064	4,046
18	0	-	-	-	-	-	2,455	5,241	-	12,332	5,877	-
19	-	-	-	-	-	-	-	5,451	-	12,129	5,690	4,065
20	-	-	-	-	-	-	-	5,668	-	11,958	5,472	-
21	-	-	-	-	1,627	-	-	5,932	-	11,678	5,272	-
22	-	-	-	-	-	-	-	6,174	-	11,510	5,083	-
23	-	-	-	-	-	2,076	-	6,394	-	11,286	4,894	-
24	-	-	-	-	-	-	-	6,670	-	11,090	4,720	-
25	-	-	-	-	-	-	-	6,946	-	10,872	4,530	-
26	-	-	-	-	-	-	-	7,268	-	10,656	4,320	-
27	-	-	-	-	-	-	-	7,555	-	10,440	4,122	-
28	-	-	-	-	-	-	-	7,867	-	10,197	3,970	-
29	-	-	-	-	1,722	2,166	2,961	8,155	-	9,985	3,789	-
30	-	393	-	-	-	-	a2,995	8,454	a12,187	9,777	-	519
31	a67	-	825	1,306	-	2,211	-	8,754	-	9,569	a3,802	-

a No record; contents interpolated.

Monthly elevation and contents, water year October 1939 to September 1940

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	-	0	-
Oct. 31	-	a67	+67
Nov. 30	7,140.1	393	+326
Dec. 31	7,144.6	825	+432
Calendar year 1939	-	-	+825
Jan. 31	7,148.8	1,306	+481
Feb. 29	7,152.0	1,722	+416
Mar. 31	7,155.4	2,211	+489
Apr. 30	-	a2,995	+784
May 31	7,187.2	8,754	+5,759
June 30	-	a12,187	+3,433
July 31	7,190.4	9,569	-2,618
Aug. 31	-	a3,802	-5,767
Sept. 30	7,141.5	519	-3,283
Water year 1939-40	-	-	+519

a No record; contents interpolated.
Note.- Gates closed and storage began on Oct. 18; water reached elevation 7,135.0 feet (zero contents by capacity table) on or about Oct. 26. Waters of Cascade Creek diverted into Grassy Lake on Nov. 18. Outlet gates remained closed until June 11; lake was half level at about elevation 7,200.0 feet June 12 to July 18; outlet gates closed Aug. 30 to Sept. 19; gradual drop in lake Sept. 19-30 as water was released to repair outlet gate.

Teton River near Driggs, Idaho

Location.- Staff gage, lat. 43°45', long. 111°12', in SE¼ sec. 13, T. 5 N., R. 44 E., 4 miles downstream from Teton Creek and 5 miles northwest of Driggs.

Drainage area.- 300 square miles.

Records available.- May 1935 to August 1940, except for winters 1935-39 (discontinued).

Extremes.- Maximum discharge observed during year, 736 second-feet Mar. 27 (gage height, 2.34 feet); minimum observed, 141 second-feet Feb. 25 (gage height, 1.07 feet), but may have been less during period of ice effect Jan. 12-26.
1935-40: Maximum discharge observed, 1,480 second-feet June 2, 1936 (gage height, 3.83 feet); minimum observed, 132 second-feet Nov. 19, 24, 1935 (gage height, 1.60 feet, former site and datum), but may have been less during periods of ice effect.

Remarks.- Records good except those for Dec. 23 to Mar. 31, which are fair. Flow reduced by diversions from tributaries above station for irrigation.

Cooperation.- Gage-height record October to April furnished by Bureau of Reclamation and May to July by Soil Conservation Service.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	300	265	215	189	178	269	296	252	355	476	-	
2	314	265	221	189	178	246	279	240	371	491	-	
3	348	252	224	197	200	246	259	203	380	491	-	
4	340	246	224	186	227	240	233	212	397	433	-	
5	352	249	224	181	252	224	227	a210	380	414	-	
6	388	246	224	181	246	224	233	a210	401	377	291	
7	438	249	215	184	200	221	230	a210	410	a375	-	
8	371	243	212	178	212	224	233	a220	505	a378	-	
9	325	243	200	178	230	221	240	a230	582	390	-	
10	318	236	224	168	249	221	246	a240	476	-	-	
11	293	227	*221	158	233	209	224	a250	447	-	-	
12	286	230	227		224	200	206	265	392	-	-	
13	289	224	227		218	200	195	310	388	-	-	
14	293	224	221		218	192	224	352	388	-	-	
15	289	221	218		212	181	256	269	481	-	-	
16	286	218	206		197	203	293	310	541	-	-	
17	293	215	206		215	233	249	289	536	-	-	
18	289	209	203		206	246	224	262	447	-	-	
19	286	215	272	155	200	262	195	246	384	-	-	
20	279	215	249		189	265	209	224	536	-	-	
21	279	209	178		184	289	209	221	486	-	-	
22	279	209	184		166	328	195	233	481	-	-	
23	276	212	180		156	367	206	246	414	-	-	
24	272	212	178		146	397	209	246	392	-	-	
25	276	209	176		141	438	209	252	397	-	-	
26	289	209	175		158	481	209	355	397	-	-	
27	289	200	175	197	184	736	209	344	380	-	-	
28	293	197	174	197	203	486	215	344	352	-	-	
29	286	197	174	195	233	296	230	367	384	-	253	
30	276	197	175	189	-	328	252	363	359	-	-	
31	262	-	180	189	-	332	-	352	-	-	-	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,454	438	262	305	18,750
November	6,743	265	197	225	13,370
December	6,385	272	174	206	12,660
Calendar year	-	-	-	-	-
January	5,281	197	-	170	10,470
February	5,855	252	141	202	11,610
March	9,005	736	181	290	17,860
April	6,894	296	195	230	13,670
May	8,327	367	203	269	16,520
June	12,539	582	352	428	25,470
July 1-9	3,788	481	390	421	7,510
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	147,900

*Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated or computed on basis of record for station near St. Anthony.
Note.- Stage-discharge relation affected by ice Dec. 23-31, Jan. 12-26.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Teton River near Tetonia, Idaho

Location.- Water-stage recorder, lat. 43°51', long. 111°15', in sec. 15, T. 6 N., R. 44 E., 1¼ miles downstream from highway bridge and 6 miles northwest of Tetonia.

Drainage area.- 460 square miles.

Records available.- October 1929, March 1930 to September 1932, May to September 1934, July to September 1935, and May to September 1940 (discontinued). Additional records collected by Water District No. 36, State of Idaho, October, November 1932, July to September 1936, and July to September 1937.

Extremes.- Maximum discharge during period May to September 1940, 716 second-feet June 9 (gage height, 1.59 feet); minimum, 242 second-feet Sept. 2 (gage height, 0.82 foot). 1929-40: Maximum discharge observed, 1,500 second-feet June 27, 1932 (gage height, 2.48 feet); minimum observed, 100 second-feet Sept. 21, 1934 (gage height, 0.47 foot).

Remarks.- Records good. Flow reduced by diversions from tributaries above station for irrigation.

Cooperation.- Gage-height record for May and June furnished by Soil Conservation Service.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	460	466	324	246
2								-	491	541	314	242
3								-	528	535	314	-
4								-	528	497	310	-
5								-	528	472	305	-
6								-	608	448	301	-
7								-	528	431	292	-
8								-	615	425	288	-
9								-	700	419	283	-
10								-	581	397	283	-
11								-	503	397	279	-
12								-	472	386	279	-
13								-	466	375	274	-
14								-	516	364	274	-
15								-	608	364	266	-
16								314	650	380	262	-
17								301	657	392	262	-
18								292	615	392	258	-
19								283	595	380	258	-
20								270	636	370	262	-
21								270	629	364	274	-
22								270	554	349	279	-
23								258	491	344	279	-
24								262	454	339	288	-
25								283	425	334	288	-
26								324	414	339	283	-
27								437	408	349	279	-
28								402	408	349	270	-
29								419	414	344	254	-
30								402	408	334	254	-
31								408	-	334	254	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 16-31	5,195	437	258	335	10,300
June	15,890	700	408	530	31,520
July	12,210	541	334	394	24,220
August	8,690	324	254	280	17,240
September	-	-	-	-	-
The period	-	-	-	-	83,280

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Teton River near St Anthony, Idaho

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

Drainage area.- 920 square miles.

Records available.- April 1903 to June 1909, April 1920 to September 1940.

Extremes.- Maximum discharge during year, 2,040 second-feet May 14 (gage height, 4.54 feet); minimum not determined, probably occurred during period of ice effect, Jan. 12-31.
1903-9, 1930-40: Maximum discharge, 7,820 second-feet June 5, 1909 (gage height, 6.90 feet, site and datum then in use; minimum, 55 second-feet March 12, 1906 (gage height, 1.00 foot, site and datum then in use).

Remarks.- Records excellent except those for periods of ice effect, which are fair. Flow affected by diversions from streams in Teton Basin 20 miles upstream and by diversion from Henrys Fork through Cross Cut canal into Teton River (12,500 acre-feet diverted into river during 1940).

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	518	480	412	410	350	614	645	711	1,480	798	705	439
2	533	475	417	421	350	563	614	678	1,500	896	711	434
3	563	471	421	452	350	528	573	786	1,380	877	705	439
4	578	466	421	443	350	489	548	1,010	1,400	828	700	457
5	563	457	412	421	*366	480	509	1,060	1,320	804	705	484
6	563	452	412	408	382	452	480	1,010	1,370	774	683	563
7	598	457	412	395	382	443	461	903	1,230	739	630	543
8	619	457	412	378	378	443	452	870	1,320	733	609	523
9	573	448	421	421	370	448	448	1,010	1,400	716	609	533
10	538	434	443	403	386	439	466	1,230	1,320	689	624	583
11	523	430	443	349	378	425	475	1,620	1,270	678	614	578
12	514	421	421		365	395	448	1,800	1,240	667	604	514
13	509	425	395		353	391	434	1,940	1,300	683	598	494
14	494	430	*430		374	395	457	1,960	1,420	689	598	484
15	480	430	421		395	386	509	1,800	1,450	694	604	475
16	480	425	421		353	391	604	1,830	1,460	744	609	461
17	475	421	439		353	412	598	1,730	1,440	762	604	457
18	480	417	425		395	437	543	1,580	1,340	756	583	457
19	471	421	382		374	480	553	1,450	1,320	624	578	484
20	471	425	399		370	489	635	1,390	1,350	604	593	543
21	471	421	417	320	353	533	700	1,440	1,310	635	609	689
22	471	425	408		349	593	645	1,390	1,160	716	583	568
23	475	421	378		408	672	598	1,380	1,040	728	538	518
24	489	417	365		378	733	593	1,390	943	716	528	484
25	489	412	382		378	756	645	1,400	896	716	538	543
26	499	403	353		391	774	694	1,490	864	716	533	484
27	499	412	353		439	896	705	1,560	846	738	499	583
28	494	412	353		563	943	716	1,440	816	780	466	662
29	494	408	353		689	705	756	1,470	798	762	452	711
30	489	408	353		-	635	733	1,470	786	736	448	694
31	475	-	400		-	705	-	1,480	-	728	443	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15,888	619	471	513	31,610
November	12,981	480	403	433	25,750
December	12,474	443	353	402	24,740
Calendar year 1939	264,048	2,210	-	723	523,710
January	10,901	452	-	352	21,620
February	11,322	689	349	390	22,460
March	17,065	943	386	550	33,850
April	17,237	733	434	575	34,190
May	42,278	1,960	678	1,364	83,860
June	36,769	1,500	786	1,226	72,930
July	22,730	896	604	733	45,090
August	18,303	711	443	590	36,300
September	15,881	711	434	529	31,500
Water year 1939-40	233,829	1,960	-	639	463,790

*Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 28 to Jan. 1, Jan. 12 to Feb. 5.

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

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

Between St. Anthony gaging station and mouth 17 canals divert water from Teton River for irrigation. Records available for part of each irrigation season from 1919 to 1940. Records of discharge of canals are combined to show total diverted flow.

During July and August, records computed from daily staff-gage readings and are good. During May, June, and September, records computed or interpolated from daily or bi-weekly staff-gage readings and are fair.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								360	1,370	887	738	422
2								366	1,330	662	719	423
3								394	1,350	860	712	432
4								434	1,350	770	681	455
5								451	1,050	758	685	489
6								487	930	755	691	514
7								521	904	749	619	514
8								576	914	732	626	497
9								670	913	678	614	485
10								783	886	684	623	510
11								892	898	687	603	520
12								945	936	658	583	492
13								1,010	988	622	586	451
14								1,170	1,010	676	573	447
15								1,170	1,120	662	575	443
16								1,180	1,210	725	577	460
17								1,160	1,180	742	599	446
18								1,140	1,160	739	574	436
19								1,140	1,180	631	568	468
20								1,120	1,180	598	563	490
21								1,130	1,200	590	612	462
22								1,120	1,130	724	600	433
23								1,130	1,080	735	541	398
24								1,140	973	723	528	370
25								1,330	885	720	545	349
26								1,390	722	728	560	339
27								1,380	671	738	524	320
28								1,330	888	806	458	310
29								1,340	871	791	439	300
30								1,340	861	773	428	292
31								1,380	-	749	414	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	29,979	1,390	360	967	59,460
June	31,140	1,370	671	1,038	61,770
July	22,352	887	590	721	44,330
August	18,158	738	414	586	36,020
September	12,975	528	292	432	25,740
The period	-	-	-	-	227,300

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Blackfoot River near Blackfoot, Idaho

Location.- Water-stage recorder, lat. 43°08', long. 112°28', at east quarter corner of sec. 28, T. 3 S., R. 34 E., about 2 miles upstream from mouth and 9 miles southwest of Blackfoot.

Drainage area.- 1,100 square miles.

Records available.- July 1913 to September 1940.

Extremes.- Maximum discharge during year, 396 second-feet April 18 (gage height, 4.80 feet); no flow on many days.
1913-40: Maximum discharge, 868 second-feet May 21, 1921; no flow on many days.

Remarks.- Records good except those for periods of staff-gage readings or partial record, which are fair, and those for periods of no gage-height record, which are poor. Flow regulated by Blackfoot Marsh Reservoir (capacity 413,000 acre-feet). Many diversions above station for irrigation. Most of flow during the nonirrigation season and part of that during the irrigation season is supplied by waste water from Snake River canals.

Cooperation.- Gage-height record furnished by Office of Indian Affairs.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	238	236			-	a109	135	4	6	1	0
2	50	233	237			-	a120	122	3	9	1	0
3	55	148	225			-	a150	S2	3	2	1	0
4	76	116	237			-	a150	59	2	6	1	0
5	107	109	309			-	a100	SO	2	8	1	0
6	162	113	311			-	h37	146	46	3	1	0
7	203	118	286			-	a37	148	312	2	0	0
S	275	118	215			-	fSO	52	250	2	1	0
9	304	116	182			-	29	16	272	1	0	2
10	318	120	112			-	f29	S	302	1	0	1
11	322	122	71			-	a80	4	82	1	0	0
12	300	135	39			-	a80	1	45	1	0	0
13	282	197	158			-	f79	2	20	1	0	15
14	284	190	237			-	99	3	6	1	0	34
15	263	182	173			-	104	2	4	2	0	27
16	224	156	S6			h215	144	1	6	5	0	57
17	204	154	73			a215	278	2	13	2	0	141
18	187	147	96			a215	327	0	5	1	0	131
19	175	192	93			a215	308	0	2	2	0	158
20	168	210	-			a210	241	5	1	1	0	201
21	15S	230	-			a210	204	7	1	1	0	255
22	156	254	-			a203	210	6	2	1	0	256
23	72	251	-			f203	243	2	7	1	0	89
24	a10	252	-			164	182	2	5	1	0	73
25	a10	250	-			140	178	2	3	0	0	69
26	a15	240	-			111	122	3	2	1	0	67
27	a199	237	-			86	71	7	2	1	0	71
28	h199	236	-			84	39	5	2	0	0	81
29	a215	236	-			98	79	6	2	0	0	105
30	a230	236	-			109	146	4	2	1	0	153
31	f246	-	-			a109	-	4	-	1	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,515	322	10	178	10,940
November	5,536	254	109	185	10,980
December 1-19	3,376	311	39	178	6,700
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 16-31	2,5S7	215	84	162	5,130
April	4,055	327	29	135	8,040
May	916	148	0	29.5	1,S20
June	1,408	312	1	46.9	2,790
July	65	9	0	2.1	129
August	7	1	0	.2	14
September	1,986	256	0	66.2	3,940
Water year	-	-	-	-	-

a No gage height record; discharge Oct. 24-27, 29, 30 estimated by observer, discharge for other days computed on basis of records for Snake River at Clough Ranch.
f Computed from daily gage heights based on partial record.
h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

MUD LAKE BASIN

Mud Lake near Terreton, Idaho

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

Records available.- April 1921 to September 1940.

Extremes.- Maximum daily contents during year, 29,800 acre-feet May 2 (gage height, 6.44 feet); minimum daily, 856 acre-feet Aug. 27, Sept. 2 (gage height, -1.72 feet).
1921-40: Maximum contents observed, 61,660 acre-feet May 5, 1923 (gage height, 9.20 feet); practically no storage Oct. 1 to Nov. 15, 1937 (at 4 p.m. Nov. 15 water was diverted from Camas Creek into lake).

Remarks.- Mud Lake is a perched body of water confined by earth dikes and fed by ground water and surface tributaries. For complete description of Mud Lake region see Water-Supply Paper 818. Water for irrigation is diverted from lake and tributaries by pumping and gravity. Camas Creek diversion canal reported in operation June 26 to Sept. 30. Area of lake is varied from time to time by changes in dikes. High winds occasionally disturb the recording of lake stages. Figures given herein represent contents above gage height, -4.0 feet. Capacity table prepared from surveys made by Geological Survey adjusted for changes in dikes.

Cooperation.- Water-stage recorder record furnished by watermaster for Mud Lake and staff-gage record by Owsley Canal Co.

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,280	2,240	6,000	10,700	15,200	19,800	24,000	29,700	15,400	4,920	1,910	867
2	1,280	2,300	6,080	10,800	15,000	19,900	24,200	29,800	a15,000	4,880	1,900	856
3	1,340	2,420	6,180	10,900	15,500	a20,000	24,300	29,700	a12,600	4,790	1,800	944
4	1,180	2,580	6,380	11,000	a15,600	20,200	24,500	29,400	a12,300	4,710	1,850	878
5	1,110	2,690	6,540	11,200	a15,800	20,400	24,700	29,100	a11,900	4,500	1,800	955
6	1,240	2,800	6,670	a11,200	a16,000	20,600	25,000	28,900	a11,500	4,450	1,760	911
7	1,280	2,920	6,770	11,300	16,100	20,600	25,100	28,600	a11,100	4,350	1,730	922
8	1,360	2,960	6,860	11,500	a16,200	20,800	25,300	28,300	a10,700	4,270	1,690	878
9	1,300	3,160	6,940	11,600	16,300	21,000	25,400	27,900	a10,300	4,090	1,610	966
10	1,330	3,280	7,070	11,700	a16,500	a21,200	25,700	27,300	a9,950	4,050	1,610	966
11	1,330	3,340	7,210	12,000	a16,800	21,400	26,000	26,800	a9,560	3,930	1,580	933
12	1,400	3,480	7,330	12,100	17,000	a21,600	26,100	26,200	9,180	3,820	1,540	955
13	1,470	3,610	7,500	a12,200	17,100	21,900	25,800	25,800	8,820	3,630	1,470	922
14	1,470	3,670	7,740	12,400	17,300	a21,900	26,200	25,200	8,460	3,590	1,410	966
15	1,550	3,820	7,830	12,600	a17,400	21,900	a26,600	24,500	8,110	3,500	1,430	955
16	1,590	4,050	7,920	12,700	a17,600	22,000	27,100	23,800	7,740	3,410	1,400	911
17	1,510	4,130	8,140	12,800	a17,700	a22,200	27,000	23,100	7,470	3,300	1,410	878
18	1,640	4,230	8,330	13,200	a17,900	22,300	27,300	22,300	7,210	3,230	1,330	933
19	1,750	4,350	8,460	13,200	a18,000	22,400	27,500	21,600	6,940	3,130	1,280	966
20	1,780	4,480	8,620	13,200	a18,200	22,500	27,600	20,900	6,540	3,030	1,320	1,040
21	1,800	4,600	8,750	13,500	18,300	22,600	27,800	20,100	6,300	3,010	1,230	1,070
22	1,820	4,680	8,890	13,600	a18,400	a22,800	27,900	19,400	6,050	2,840	1,270	1,060
23	1,850	4,830	9,080	13,800	18,600	23,000	28,000	18,700	5,880	2,670	1,150	1,100
24	1,860	4,940	9,250	14,100	a18,700	23,000	28,400	18,000	5,630	2,450	1,190	1,160
25	1,790	5,050	9,420	14,300	18,800	23,000	28,700	17,300	5,580	2,510	1,100	1,160
26	1,780	5,150	9,630	14,500	19,000	23,100	28,900	16,700	5,440	2,480	1,060	1,200
27	1,940	5,300	9,800	14,600	a19,200	23,300	29,200	16,000	5,390	2,240	856	1,190
28	1,940	5,480	9,910	14,700	19,400	23,400	29,200	15,500	5,250	2,260	988	1,320
29	2,000	5,680	9,980	14,800	19,600	23,400	29,400	15,000	5,100	2,140	977	1,370
30	2,020	5,850	10,300	14,900	-	23,500	29,500	14,400	4,940	2,090	956	1,410
31	2,020	-	10,600	15,000	-	23,800	-	13,800	-	1,940	922	-

a No gage-height record; contents interpolated.
Note.- Contents for period Nov. 12 to Apr. 14 mostly computed from readings of supplemental gage.

Monthly gage height and contents, water year October 1939 to September 1940

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	-1.35	1,300	-
Oct. 31	-.85	2,020	+720
Nov. 30	+1.16	5,850	+3,830
Dec. 31	2.67	10,500	+4,650
Calendar year 1939	-	-	-1,900
Jan. 31	3.78	15,000	+4,500
Feb. 29	4.72	19,600	+4,600
Mar. 31	5.50	23,800	+4,200
Apr. 30	6.40	29,500	+5,700
May 31	3.51	13,800	-15,700
June 30	+.77	4,940	-8,860
July 31	-.90	1,940	-3,000
Aug. 31	-1.66	922	-1,018
Sept.30	-1.27	1,410	+488
Water year 1939-40	-	-	+110

Camas Creek at Eighteenmile Shearing Corral, near Kilgore, Idaho

Location.- Water-stage recorder, lat. 44°18', long. 111°52', in sec. 7, T. 11 N., R. 39 E., at county-road bridge at Eighteenmile Shearing Corral, 7 miles south of Kilgore and 18½ miles northeast of Dubois.

Drainage area.- 210 square miles.

Records available.- May 1937 to September 1940 (no winter records).

Extremes.- Maximum discharge recorded during year, 432 second-feet Apr. 15; maximum gage height recorded, 3.98 feet Apr. 1, 2, affected by ice; minimum discharge recorded, 0.7 second-foot Aug. 19 (gage height, 1.29 feet).
1937-40: Maximum discharge, 1,200 second-feet probably on May 2, 1938 (gage height, 4.70 feet, datum then in use, from floodmark), from rating extended above 600 second-feet; minimum, that of Aug. 19, 1940.

Remarks.- Records good. No regulation. Diversions above station for irrigation and stock water.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	18					-	150	51	14	7.6	5.4
2	19	18					-	129	45	19	7.0	5.4
3	24	17					-	143	48	18	6.5	5.4
4	22	16					-	173	77	18	6.5	6.2
5	20	17					-	202	87	16	5.8	6.5
6	22	-					-	183	91	16	5.4	6.5
7	30	-					143	156	83	14	5.4	6.2
8	28	-					156	127	81	14	5.1	6.2
9	24	-					159	120	79	13	5.1	5.8
10	22	-					152	125	66	12	5.4	6.2
11	20	-					147	136	54	12	5.1	5.8
12	20	-					152	159	48	12	5.4	5.8
13	20	-					208	180	42	11	5.1	6.2
14	20	-					295	175	37	11	a4.7	6.2
15	20	-	†17				403	152	33	11	a4.4	7.0
16	20	-					289	143	30	11	4.0	6.5
17	20	-					265	140	26	11	2.4	6.5
18	20	-					244	127	24	11	1.6	7.0
19	20	-					a300	114	22	11	1.2	7.0
20	19	-					a400	106	20	10	1.4	7.0
21	19	-					a350	101	20	9.2	1.8	11
22	19	-					a250	91	18	9.2	2.2	10
23	19	-					h190	83	16	9.2	2.8	9.8
24	20	-					a180	77	16	9.2	2.6	9.8
25	19	-					a180	75	14	8.7	2.8	9.8
26	19	-					262	68	14	8.7	3.4	10
27	22	-					246	70	14	9.2	4.0	10
28	18	-					198	77	13	10	5.4	11
29	20	-					228	66	12	9.2	5.8	14
30	18	-					231	66	12	9.2	5.8	15
31	18	-					-	62	-	8.2	5.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	635	30	14	20.5	1,260
November 1-5	86	18	16	17.2	171
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 7-30	5,628	403	143	234	11,160
May	3,776	202	62	122	7,490
June	1,193	91	12	39.8	2,370
July	366.2	19	8.2	11.8	726
August	137.1	7.6	1.2	4.42	272
September	235.2	15	5.4	7.84	467
Water year	-	-	-	-	-

†Discharge measurement.
a No gage-height record; discharge interpolated or computed on basis of weather records, recorded range of stage, and records for stations at Camas and on nearby streams.
h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Camas Creek at Camas, Idaho

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

Records available.- April 1925 to September 1940.

Average discharge.- 14 years (1926-40), 16.2 second-feet.

Extremes.- Maximum discharge during year, 246 second-feet Apr. 20 (gage height, 3.50 feet); no flow at times during year.
1925-40: Maximum discharge, 900 second-feet probably on May 3, 1938 (gage height, 3.98 feet, datum then in use, from floodmark), from rating curve extended above 400 second-feet; no flow June 1-7, 1926, and during many periods in years 1930-40.

Remarks.- Records good except those for Apr. 27, May 21-25, which are fair, and those for Oct. 1-7, Nov. 1 to Mar. 22, which are poor. Diversions above station for irrigation and stock water.

Cooperation.- Gage-height record furnished by watermaster for Mud Lake.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1						22	137	12			
2	2						48	93	8			
3	3						51	73	7			
4	4						47	70	7			
5	4						76	86	14			
6	6						83	102	25			
7	8						83	94	31			
8	12						104	78	30			
9	12			1			111	64	30			
10	9						104	59	27			
11	7					2	91	59	22			
12	6						86	60	17			
13	5						91	72	14			
14	3						127	83	11			
15	4	1	1		1		179	86	9			
16	3						217	67	8			
17	3						169	61	7			
18	3						169	59	5			
19	1						199	52	4			
20	1						230	44	4			
21	1						206	38	2			
22	0						210	33	0			
23	0					6	158	28	0			
24	1			0		7	125	22	0			
25	1					4	113	16	0			
26	2					4	106	11	0			
27	1					4	150	11	0			
28	2					4	141	12	0			
29	2					6	123	14	0			
30	2				-	9	150	13	0			
31	2		-		-	13	-	11	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	111	12	0	3.6	220
November	30	-	-	1.0	60
December	31	-	-	1.0	61
Calendar year 1939	7,678	221	0	21.0	15,220
January	17	-	0	.5	34
February	29	-	-	1.0	58
March	101	13	-	3.3	200
April	3,769	230	22	126	7,480
May	1,708	137	11	55.1	3,390
June	294	31	0	9.8	583
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1939-40	6,090	230	0	16.6	12,090

Note.- Discharge for periods of ice effect and no gage-height record, Oct. 1-7, Nov. 1 to Mar. 22, Apr. 27, May 21-25, interpolated or computed on basis of discharge measurements made on Dec. 15, Jan. 17, field estimates, weather records, and records for station near Kilgore and on nearby streams. Staff gage reading, Dec. 16, Jan. 1, 16, 17, May 20.

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Beaver Creek near Spencer, Idaho

Location.- Staff gage, lat. 44°22', long. 112°11, in sec. 14, T. 12 N., R. 36 E., 400 feet downstream from railroad crossing and 1.2 miles north of Spencer.

Drainage area.- 116 square miles.

Records available.- November 1938 to September 1940 (discontinued).

Extremes.- Maximum discharge, 170 second-feet (estimated) Apr. 1; practically no flow during August.
1938-40: Maximum discharge, 309 second-feet Mar. 26, 1939 (gage height, 4.22 feet from high-water mark), from rating curve extended above 220 second-feet; practically no flow during August 1940.

Remarks.- Records poor. Few small ranch diversions above station.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			8				170	39	22	4		
2			8				140	39	24	7		
3			8				98	40	27	10		
4			8				57	40	29	8		
5			8			12	58	42	31	7		1
6			8				60	43	32	6		
7			8				60	44	33	5		
8			9				60	46	30	4		
9			9				58	40	27	4		1
10			10			*13	59	33	24	4		
11			8			16	60	34	19	3		
12			8			16	60	34	16	2		
13			8			15	60	33	12	2		
14			8			14	59	30	12	2		
15			*8			14	58	26	11	2		2
16	d9	d8	8	7	9	13	52	25	11	2		
17			9			12	47	24	10	2		
18			8			12	46	23	9	2		
19			8			13	44	22	8	2		
20			8			13	46	21	7	2		
21						14	46	22	6	2		
22						24	47	22	6	1		
23						22	46	22	5	1		
24						19	46	22	4	1		
25				(*)		24	46	22	4	2		4
26			7			28	54	22	4	2		
27						35	61	22	4	1		
28						43	54	22	4	1		
29						50	46	21	3	1		
30					-	75	42	20	4	1		
31		-			-	100	-	20	-	1		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	279	-	-	9.0	553
November	240	-	-	8.0	476
December	242	10	-	7.8	480
Calendar year 1939	9,884	300	2	27.1	19,600
January	217	-	-	7.0	430
February	261	-	-	9.0	518
March	693	100	-	22.4	1,370
April	1,840	170	42	61.3	3,650
May	915	46	20	29.5	1,810
June	438	33	3	14.6	869
July	94	10	1	3.0	186
August	0	0	0	0	0
September	75	-	-	2.5	149
Water year 1939-40	5,294	170	0	14.5	10,490

*Winter discharge measurement made on this day.
d Doubtful gage-height record; discharge computed on basis of discharge measurement made on Oct. 20, weather records, and records for stations on nearby streams.
Note.- Gage usually read on alternate days. Discharge for intervening days, periods of ice effect and periods of backwater from beaver dams was interpolated or computed on basis of discharge measurements, weather records, and records for stations on nearby streams.

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Beaver Creek at Dubois, Idaho

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

Drainage area.- 220 square miles.

Records available.- April 1921 to September 1940.

Extremes.- Maximum discharge during year, 122 second-feet Apr. 1 (gage height, 1.84 feet); no flow during long periods.
1921-40: Maximum discharge, 858 second-feet Apr. 7, 1930; maximum gage height, about 6.5 feet Mar. 16, 1926; no flow during long periods.

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

Cooperation.- Gage-height record furnished by watermaster for Mud Lake.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	113	11	0			
2						0	79	6.2	0			
3						0	45	5.4	0			
4						0	28	9.4	0			
5						0	29	16	0			
6						0	38	18	0			
7						0	27	17	0			
8						0	26	11	0			
9						0	30	7.7	2.9			
10						0	25	6.5	1.7			
11						0	18	7.7	0			
12						0	14	10	0			
13						0	13	13	0			
14						0	17	14	0			
15						0	22	12	0			
16						0	29	10	0			
17						0	16	9.4	0			
18						0	12	8.8	0			
19						0	9.7	4.9	0			
20						0	8.3	2.8	0			
21						0	16	.1	0			
22						0	12	0	0			
23						0	7.7	0	0			
24						0	7.3	0	0			
25						.1	7.3	0	0			
26						4.7	14	0	0			
27						18	19	0	0			
28						28	10	0	0			
29						29	14	0	0			
30						24	15	0	0			
31						46	-	0	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1939	5,005.4	240	0	13.7	9,930
January	0	0	0	0	0
February	0	0	0	0	0
March	149.8	46	0	4.83	297
April	721.3	113	7.3	24.0	1,430
May	200.9	18	0	6.48	398
June	4.6	2.9	0	.15	9.1
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1939-40	1,076.6	113	0	2.94	2,130

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Beaver Creek at Camas, Idaho

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

Records available.- April 1921 to September 1940.

Extremes.- No flow during year.
1921-40: Maximum discharge observed, 163 second-feet Apr. 7, 1930; usually no flow past station except for short period in spring of each year; none passed station during years 1931 to 1936 and 1940.

Remarks.- No flow during water year 1940. Flow affected by diversions above Dubois, about 14 miles above station, for irrigation, and by heavy channel losses below Dubois.

Discharge, in second-feet, calendar year 1939

Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
1,889.1	118	0	5.18	3,742

Medicine Lodge Creek near Argora, Idaho

Location.- Water-stage recorder, Mar. 21 to Sept. 30, lat. 44°19', long. 112°34', in sec. 34, T. 12 N., R. 33 E., at Albano Ranch, 2½ miles southeast of Argora. Prior to Mar. 21 staff gage at same site and datum.

Drainage area.- About 160 square miles.

Records available.- November 1938 to September 1940.

Extremes.- Maximum discharge during year, 40 second-feet June 3 (gage height, 1.01 feet); minimum recorded, 15 second-feet Apr. 20 (gage height, 0.66 foot), but may have been smaller during winter.

1939-40: Maximum discharge observed, 166 second-feet Mar. 22, 1939 (gage height, 1.80 feet), from rating curve extended above 50 second-feet; minimum recorded, that of Apr. 20, 1940.

Remarks.- Records for Oct. 1 to Mar. 20 fair except those for Oct. 8-20, Dec. 19-31, Jan. 10-24, Jan. 26 to Feb. 24, which are poor; good for remainder of year. Several diversions above station for irrigation. Gage read about every other day Oct. 1 to Mar. 20.

Rating table, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Jan. 9)

0.6	12	0.9	29.5
.7	16.5	1.0	39
.8	22		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	e20	21	27		e23	29	31	31	27	20	23
2	21	20	e20	e26		e23	26	31	32	30	20	21
3	23	e20	e19	26		22	24	31	36	26	20	27
4	e25	21	18	e26		e23	23	31	36	25	19	26
5	27	e20	e19	26		24	23	32	36	24	19	25
6	27	20	20	e24		e24	24	35	34	24	20	25
7	27	e18	e20	23		25	22	34	31	24	21	24
8		17	20	e24		e25	21	34	31	24	22	25
9		e18	e22	26		e26	21	33	31	22	21	25
10		20	23			e26	21	32	30	22	21	26
11		e20	e25			26	21	32	28	21	20	26
12		e20	27			e30	20	32	26	21	20	25
13		20	e28		e20	33	18	33	26	21	20	26
14	e20	21	*28			e29	18	33	26	21	20	26
15		21	e28			e25	18	33	26	21	20	26
16		e21	27			21	17	33	25	21	19	26
17		21	e27	e20		e20	16	33	25	21	19	25
18		e21	27			20	17	34	25	22	20	24
19		21				e21	16	34	25	21	21	24
20		e20				22	15	34	25	21	21	28
21	17	18				30	21	34	25	21	24	27
22	e16	e20				27	23	34	25	21	24	26
23	18	21				29	26	34	24	21	23	26
24	e18	e20				28	30	34	26	21	24	25
25	19	20	e20	*16	24	29	30	34	25	22	26	24
26	e19	e20			e24	28	31	35	26	24	26	24
27	19	21			24	25	31	37	26	24	24	24
28	e19	e21			e24	24	31	36	24	23	24	31
29	19	21		e20	24	22	32	35	24	22	24	29
30	e20	e21			-	24	31	34	24	21	23	29
31	20	-			-	30	-	32	-	21	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	637	27	-	20.5	1,260
November	603	21	17	20.1	1,200
December	679	28	-	21.9	1,350
Calendar year 1939	10,059	166	-	27.6	19,940
January	664	27	-	21.4	1,320
February	600	-	-	20.7	1,190
March	784	33	20	25.3	1,560
April	696	32	15	23.2	1,380
May	1,034	37	31	33.4	2,050
June	834	36	24	27.8	1,650
July	700	30	21	22.6	1,390
August	668	26	19	21.5	1,320
September	768	31	21	25.6	1,520
Water year 1939-40	8,667	37	-	23.7	17,190

*Winter discharge measurement made on this day.
e Discharge for periods of ice effect, questionable or no gage-height record; interpolated or computed on basis of weather records and records for nearby streams.

Little Lost River near Howe, Idaho

Location.- Water-stage recorder, lat. 43°53', long. 113°06', in sec. 3, T. 6 N., R. 28 E., a quarter of a mile upstream from diversion dam of Blaine County Investment Co., 6 miles northwest of Berenice, and 7 miles northwest of Howe.

Records available.- April 1921 to September 1940, except during winters.

Extremes.- Maximum discharge during year, 101 second-feet May 14; maximum gage height recorded, 4.40 feet Jan. 21 (ice effect); minimum discharge observed, 7.2 second-feet Jan. 15 (discharge measurement).
1921-40: Maximum discharge, about 450 second-feet Aug. 11, 1936, during cloudburst (gage height, 3.1 feet, datum then in use from floodmark), from rating curve extended above 100 second-feet; minimum observed, that of Jan. 15, 1940.

Remarks.- Records good. Many diversions above and below station for irrigation. Prior to 1937 water was stored in small reservoir of Blaine County Investment Co. on Dry Creek, about 40 miles above station, and during irrigation seasons was released and carried through Corral and Wet Creeks to Little Lost River, from which it was diverted into the company's main canal a quarter of a mile below station.

Cooperation.- Gage-height record furnished by watermaster for Little Lost River.

Rating table, March to September, 1940 (gage height, in feet, and discharge, in second-feet)

2.1	15.5	2.4	42	2.7	76.5
2.2	23.5	2.5	52.5	2.8	90
2.3	32.5	2.6	64	2.9	104

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	36	39			-	37	58	85	42	28	24
2	42	a35	37			-	37	56	85	51	26	20
3	42	a35	38			-	36	61	82	45	19	29
4	42	a34	38			-	34	66	78	46	16	32
5	41	32	38			-	35	73	79	46	16	34
6	42	34	33			-	38	70	82	42	15	32
7	46	38	35			-	37	69	73	44	16	30
8	47	40	31			-	37	73	74	40	21	32
9	46	38	36			-	37	79	75	40	24	45
10	46	34	41			-	38	82	66	38	23	58
11	45	34	43			-	38	87	61	39	22	38
12	44	37	39			26	34	93	62	38	22	33
13	44	37	30			25	33	97	69	36	21	33
14	43	39	†32			23	37	97	72	32	20	41
15	42	41	-	†7.2		24	41	93	70	34	21	38
16	42	41	-			23	43	90	68	36	22	39
17	42	40	-			23	43	78	69	33	22	41
18	39	39	-			23	41	83	66	32	22	49
19	32	36	-			23	43	85	65	30	21	57
20	32	34	-			24	47	86	65	30	22	49
21	32	35	-			23	51	94	64	30	24	48
22	32	34	-			23	51	90	58	28	24	46
23	34	34	-			25	52	83	56	26	25	45
24	36	34	-			34	55	86	50	26	25	44
25	35	34	-			36	58	90	47	25	26	41
26	34	33	-			37	62	94	47	30	24	52
27	34	37	-			36	63	96	46	37	21	48
28	35	39	-			36	59	89	45	37	20	56
29	35	35	-			32	61	87	42	31	18	64
30	34	33	-			32	61	87	38	29	20	64
31	35	-	-			35	-	83	-	31	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,214	47	32	39.2	2,410
November	1,082	41	32	36.1	2,150
December 1-14	510	43	30	36.4	1,010
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 12-31	562	37	23	28.1	1,110
April	1,338	63	33	44.6	2,650
May	2,555	97	56	82.4	5,070
June	1,939	85	38	64.6	3,850
July	1,104	51	25	35.6	2,190
August	670	28	15	21.6	1,330
September	1,262	64	20	42.1	2,500
Water year	-	-	-	-	-

†Discharge measurement.
a No gage-height record; discharge computed on basis of weather records and records for nearby stations.

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

Location.- Staff gage and Cippoletti weir, lat. 43°53', long. 113°05', in NW¼NW¼ sec. 11, T. 6 N., R. 28 E., 665 feet downstream from head gates and 7 miles northwest of Howe.

Records available.- April 1924 to September 1940 (prior to 1939, irrigation seasons only).

Extremes.- Maximum discharge observed during year, 19 second-feet Mar. 25, 26, Sept. 29, 30; maximum gage height observed, 2.12 feet Sept. 29, 30; no flow at times.
1924-40: Maximum discharge observed, 87 second-feet May 24, 25, 1928; no flow at times.

Remarks.- Records good except those for Mar. 4-11, which are poor. Canal diverts water from Little Lost River in sec. 2, T. 6 N., R. 28 E., for irrigation of lands in project of Blaine County Investment Co.

Cooperation.- Gage-height record and results of one discharge measurement furnished by watermaster for Little Lost River.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.0				0	0	0.1	8.6	0.3		0
2	0	3.5				0	0	.1	8.6	.3		0
3	0	3.5				0	0	.1	11	.3		0
4	0	3.5					0	.1	12	.3		0
5	0	3.5					0	.1	9.3	.2		0
6	0	3.8					0	.1	7.6	.2		0
7	1.8	4.1				5	0	.2	7.6	.2		0
8	7.2	3.8					0	.2	7.0	.2		0
9	7.2	0					0	.2	6.2	.2		0
10	7.2	0					0	.2	2.7	.2		0
11	7.2	0					0	.2	.2	.2		0
12	7.2	0				14	0	.2	.2	.2		0
13	7.2	0				14	0	.2	.2	.2		0
14	7.2	0				15	0	.2	.9	.2		0
15	7.2	0				16	0	.2	12	.1		0
16	7.2	0				16	0	.2	12	.1		0
17	7.2	0				16	0	.2	8.4	.1		0
18	3.8	0				17	0	.2	6.2	0		0
19	0	0				11	0	.2	4.7	0		0
20	0	0				5.6	0	.2	4.7	0		0
21	0	0				5.0	0	1.8	4.7	0		0
22	0	0				5.0	0	4.1	4.7	0		0
23	0	0				5.0	0	5.8	4.7	0		0
24	0	0				17	0	6.9	3.8	0		0
25	0	0				19	0	6.9	.3	0		0
26	0	0				19	0	7.9	.3	0		0
27	0	0				8.9	.1	11	.3	0		0
28	0	0				6.2	.1	11	.3	0		0
29	0	0				2.6	.1	8.4	.3	0		10
30	0	0				0	.1	7.3	.3	0		18
31	0	-				0	-	8.6	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	77.6	7.2	0	2.50	154
November	27.7	4.1	0	.92	55
December	0	0	0	0	0
Calendar year 1939	1,196.3	-	0	3.28	2,370
January	0	0	0	0	0
February	0	0	0	0	0
March	252.3	19	0	8.14	500
April	.4	.1	0	.01	.8
May	83.1	11	.1	2.68	165
June	149.8	12	.2	4.99	297
July	3.5	.3	0	.11	6.9
August	0	0	0	0	0
September	28	18	0	.93	56
Water year 1939-40	622.4	19	0	1.70	1,230

Note.- Discharge Mar. 4-11 computed from data furnished by canal watermaster; Apr. 27 to May 22, June 10-14, June 24 to July 17 computed on basis of field estimates and known gate changes; May 24 interpolated.

16-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

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

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

Records available.- April 1904 to August 1906, July 1907 to November 1914, and May 1920 to September 1940, except during winters.

Extremes.- Maximum discharge recorded during year, 1,350 second-feet June 1 (gage height, 3.32 feet); minimum observed, 19 second-feet (discharge measurement) Dec. 12, but may have been less during winter.

1904-14, 1920-40: Maximum discharge, 3,590 second-feet June 12, 1921 (gage height, 5.94 feet), from rating curve extended above 3,000 second-feet; minimum observed, that of Dec. 12, 1939.

Remarks.- Records good. No regulation. Several small diversions above station. Hammerly ditch (capacity, about 20 second-feet) diverts a quarter of a mile below station.

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

Rating table, Apr. 16 to Sept. 30 (gage height, in feet, and discharge, in second-feet)

0.8	65	1.6	253	2.6	775
1.0	94	1.8	323	2.9	1,010
1.2	137	2.0	405	3.3	1,350
1.4	191	2.3	565		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	83					-	253	1,300	405	104	72
2	95	80					-	287	1,260	478	102	70
3	95	78					-	438	1,220	405	98	84
4	91	78					-	535	1,050	443	94	116
5	89	74					-	473	986	388	92	137
6	94	77					-	438	858	358	91	112
7	95	78					-	424	798	312	91	106
8	94	73					-	463	722	287	91	197
9	92	70					-	572	644	273	86	231
10	91	b65					-	782	644	260	84	203
11	89	b65					-	1,030	812	240	83	166
12	89	70	†19				-	1,220	994	227	81	163
13	89	73					-	1,260	1,170	218	78	194
14	89	71		†30			-	1,220	1,170	203	78	237
15	89	-					-	1,220	1,090	194	77	191
16	89	-					137	1,130	1,030	188	75	180
17	87	-					132	1,070	986	188	75	166
18	87	-					155	1,000	986	180	74	163
19	86	-					206	1,000	986	166	74	163
20	84	-					260	1,030	938	155	75	171
21	84	-					277	954	828	145	77	183
22	83	-					277	1,020	715	137	78	180
23	75	-					291	1,130	604	130	77	169
24	75	-					298	1,220	529	123	77	160
25	75	-					309	1,260	541	119	84	153
26	75	-					331	1,260	529	123	81	153
27	73	-					319	1,260	489	137	75	150
28	77	-					316	1,170	419	126	73	180
29	80	-					291	1,040	396	114	72	197
30	83	-					267	1,130	384	112	74	194
31	83	-					-	1,260	-	108	75	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,657	95	73	85.7	5,270
November 1-14	1,035	83	65	73.9	2,050
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 16-30	3,866	331	132	258	7,670
May	28,549	1,260	253	921	56,630
June	25,078	1,300	384	836	49,740
July	6,942	478	108	224	13,770
August	2,546	104	72	82.1	5,050
September	4,841	237	70	161	9,600
Water year	-	-	-	-	-

†Discharge measurement.
b Stage-discharge relation affected by ice.

9-2: 400457 O - 41 - 6 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

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

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

Records available.- May 1919 to September 1940.

Average discharge.- 21 years, 49.0 second-feet.

Extremes.- Maximum discharge during year, 465 second-feet June 1 (gage height, 3.40 feet); practically no flow Mar. 1 to May 12, Aug. 23-30.
1919-40: Maximum discharge, 1,320 second-feet June 7, 1938 (gage height, 5.02 feet); no flow during long periods in each year of 1920, 1923-38, 1940.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Diversions above station for irrigation. The sum of the combined discharge of east and west channels of Big Lost River and the combined discharge of east and west channels of Warm Spring Creek, near Mackay, represents practically entire surface flow of Big Lost River which enters Mackay Reservoir.

Cooperation.- Gage-height record and estimates of flow Aug. 31, Sept. 7, 14, 21 furnished by watermaster for Big Lost River.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	5	4	3				0	440	96	8	
2	4	5	4	2				0	428	116	8	
3	5	5	4	2				0	428	119	7	
4	6	5	4	2				h0	416	117	6	
5	6	5	3	2				0	369	119	6	
6	6	5	3	2				0	324	102	6	
7	6	5	3	2				0	281	89	6	
8	6	5	3	2				0	239	78	6	
9	6	5	3	2				0	204	71	5	1
10	6	5	3	1				0	176	61	5	
11	6	5	3	1				0	188	52	5	
12	6	5	3	1				0	253	44	5	
13	6	5	3	*h1				50	335	37	5	
14	6	5	3	1				134	392	33	4	
15	5	5	3	1				206	380	31	3	
16	5	5	2	1	1			243	369	28	3	
17	5	5	3	1				245	335	26	2	
18	5	5	3	1				217	324	23	1	
19	6	4	3	1				206	324	21	h1	
20	5	4	3	1				213	346	19	1	2
21	5	4	3	1				213	302	17	1	
22	5	4	3	1				209	255	17	1	
23	6	4	3	1				239	211	15	0	3
24	6	4	3	1				292	176	14	0	3
25	5	4	4	1				335	146	12	0	4
26	6	4	4	1				404	134	12	0	4
27	6	4	4	1				440	117	12	0	5
28	5	4	4	1				428	105	11	0	h5
29	5	4	4	1				392	97	10	0	5
30	5	4	4	1	-			369	94	9	0	5
31	5	-	4	*1	-			404	-	9	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	170	6	4	5.5	337
November	138	5	4	4.6	274
December	103	4	2	3.3	204
Calendar year 1939	8,855	250	2	24.3	17,560
January	41	3	1	1.3	81
February	29	-	-	1.0	58
March	0	0	0	0	0
April	0	0	0	0	0
May	5,239	440	0	169	10,390
June	8,188	440	94	273	16,240
July	1,420	119	9	45.8	2,820
August	96	8	0	3.1	190
September	61	5	-	2.0	121
Water year 1939-40	15,485	440	0	42.3	30,720

*Winter discharge measurement made on this day.
h Computed from staff-gage reading.
Note.- No gage-height record Oct. 3, Jan. 7-12, 14-30, Feb. 1-29, May 13, July 23, 24, Aug. 13-18, 20-22, Aug. 31 to Sept. 27, Sept. 29, 30; discharge interpolated or computed on basis of weather records, records for adjacent streams and field estimates.

U. S. GOVERNMENT PRINTING OFFICE 1941—O 286551

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

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

Records available.- May 1919 to September 1940.

Average discharge.- 21 years, 54.7 second-feet.

Extremes.- Maximum discharge during year, 189 second-feet June 3 (gage height, 2.96 feet); minimum, 22 second-feet May 10 (gage height, 1.84 feet).
1919-40: Maximum discharge, 1,200 second-feet (estimated) sometime during period June 5-16, 1921 (gage height, 4.45 feet, site and datum then in use); minimum, 9 second-feet May 22, 26, 1935.

Remarks.- Records good. Diversions above station for irrigation. The sum of the combined discharge of east and west channels of Big Lost River and the combined discharge of east and west channels of Warm Spring Creek, near Mackay, represents practically the entire surface flow of Big Lost River which enters Mackay Reservoir. This summation is published on the following page.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	50	a43	35	33	31	32	30	182	88	47	47
2	57	50	43	35	34	31	32	30	183	96	47	48
3	56	48	43	35	33	31	31	29	185	96	46	52
4	56	48	42	35	33	30	31	29	185	97	46	54
5	54	50	41	35	32	30	31	29	175	98	47	56
6	54	50	41	35	32	30	31	29	161	92	46	53
7	54	50	41	35	33	30	31	30	149	86	44	52
8	54	50	a41	35	33	30	31	29	139	81	44	52
9	53	50	41	34	33	30	31	29	126	76	46	53
10	54	48	41	34	33	30	30	26	114	72	46	57
11	53	48	41	34	33	30	29	26	112	65	46	54
12	53	48	41	33	33	30	29	25	126	60	44	57
13	56	48	40	33	33	30	29	31	151	56	47	57
14	54	48	40	33	33	30	29	56	170	52	47	57
15	54	48	40	33	32	30	29	78	166	50	43	56
16	54	a48	39	32	32	30	29	98	164	50	40	56
17	54	a47	39	33	31	31	29	109	158	50	42	54
18	53	47	39	33	31	31	29	114	154	46	43	54
19	54	47	39	33	31	31	29	114	156	46	43	54
20	a52	46	a38	33	30	31	29	117	164	44	43	54
21	51	46	a37	33	30	31	29	115	158	44	46	57
22	a51	44	a36	33	31	31	28	110	142	44	48	56
23	a51	43	36	33	31	31	28	115	128	43	47	56
24	a51	43	36	33	30	31	28	131	115	43	46	54
25	a51	42	a36	33	31	31	29	144	109	44	47	54
26	a51	42	a36	33	31	31	31	159	109	44	47	56
27	a51	42	a36	33	31	31	31	168	102	47	47	56
28	51	42	a35	33	31	31	30	170	94	44	48	63
29	51	a42	a35	33	31	31	30	168	86	43	50	63
30	50	a42	35	33	-	31	30	163	85	46	48	60
31	50	-	35	33	-	31	-	170	-	47	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,642	57	50	53.0	3,260
November	1,397	50	42	46.6	2,770
December	1,206	43	35	38.9	2,390
Calendar year 1939	20,130	127	35	55.2	39,930
January	1,041	35	32	33.6	2,060
February	925	34	30	31.9	1,830
March	948	31	30	30.6	1,880
April	895	32	28	29.8	1,780
May	2,671	170	25	86.2	5,300
June	4,248	185	85	142	8,430
July	1,889	98	43	60.9	3,750
August	1,419	50	40	45.8	2,810
September	1,652	63	47	55.1	3,280
Water year 1939-40	19,933	185	25	54.5	39,540

a No gage-height record; discharge interpolated.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Combined discharge, in second-feet, of Big Lost River (east and west channels) and Warm Spring Creek (east and west channels) above Mackay Reservoir near Mackay, Idaho, 1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	160	146	148	136	129	125	120	123	805	287	132	140
2	165	146	148	135	130	124	119	123	795	321	132	143
3	162	144	148	135	129	124	118	120	799	321	130	148
4	163	146	147	135	129	123	117	117	788	321	127	151
5	163	148	145	135	127	123	118	109	722	326	128	151
6	163	149	144	135	128	124	117	104	647	299	126	149
7	161	151	145	135	128	124	117	105	580	276	125	150
8	161	154	145	135	128	124	115	102	518	255	126	153
9	160	155	145	134	128	124	113	98	461	240	127	171
10	161	153	145	134	129	124	112	90	410	224	127	191
11	160	153	143	133	129	124	108	89	415	206	126	173
12	160	153	140	133	129	123	108	88	502	189	124	176
13	161	153	141	130	128	123	105	146	631	175	126	179
14	158	154	141	130	129	123	105	261	727	168	125	177
15	157	156	139	132	127	123	106	361	712	163	120	176
16	157	156	139	127	127	123	106	433	697	161	116	175
17	157	153	140	129	126	124	105	455	647	158	118	171
18	153	153	140	130	126	124	105	438	632	147	119	172
19	155	152	140	128	126	123	105	427	635	144	119	172
20	147	154	139	132	125	123	109	442	676	138	123	173
21	146	153	137	132	126	123	108	441	617	136	139	179
22	144	151	136	132	127	124	105	431	537	138	142	176
23	146	148	136	130	127	124	104	472	467	134	141	176
24	146	148	136	130	125	124	104	556	410	134	141	174
25	144	147	137	130	126	123	113	627	373	134	141	175
26	145	147	139	129	127	120	121	726	361	135	145	177
27	145	147	138	129	127	119	125	778	332	139	142	183
28	142	147	137	129	129	119	125	771	306	134	143	199
29	142	147	137	129	127	119	123	734	286	130	143	203
30	144	146	137	129	-	118	123	701	279	133	139	189
31	145	-	137	129	-	119	-	746	-	133	139	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,773	165	142	154	9,470
November	4,510	156	144	150	8,950
December	4,369	148	136	141	8,670
Calendar year 1939	65,453	504	127	179	129,800
January	4,081	136	127	132	8,090
February	3,698	130	125	128	7,330
March	3,804	125	118	123	7,550
April	3,379	125	104	113	6,700
May	11,214	778	88	362	22,240
June	16,767	805	279	559	33,260
July	5,999	326	130	194	11,900
August	4,051	145	116	131	8,040
September	5,122	203	140	171	10,160
Water year 1939-40	71,767	805	88	196	142,400

9-232 February 1936

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Mackay Reservoir near Mackay, Idaho

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

Records available.- January 1919 to September 1940.

Extremes.- Maximum contents observed during year, 26,880 acre-feet May 2-8 (gage height, 52.12 feet); minimum observed, 1,278 acre-feet Sept. 2 (gage height, 12.75 feet).
1919-40: Maximum contents observed, 41,270 acre-feet May 30, 1938 (gage height, 64.20 feet); no available storage for periods in each of the years 1919, 1920, 1924, 1926, 1929, 1931-35; minimum gage height, 6.3 feet Aug. 5, 1934.

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

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,928	6,666	13,310	18,650	22,250	24,730	26,240	26,870	25,720	20,730	6,111	1,281
2	7,686	6,687	13,520	18,790	22,440	24,770	26,260	26,880	26,030	20,930	5,765	1,289
3	7,576	6,837	13,710	18,940	22,520	24,820	26,300	26,880	26,270	21,310	5,348	1,312
4	7,481	7,098	13,950	19,050	22,590	24,920	26,350	26,880	26,430	21,530	4,895	1,382
5	7,410	7,294	14,150	19,150	22,670	25,010	26,400	26,880	26,700	21,830	4,515	1,454
6	7,354	7,486	14,310	19,210	22,760	25,070	26,460	26,880	26,680	22,200	4,074	1,546
7	7,300	7,774	14,460	19,350	22,860	25,130	26,510	26,880	26,560	22,230	3,734	1,701
8	7,244	8,072	14,690	19,570	22,970	25,170	26,550	26,710	26,540	22,140	3,437	1,884
9	7,250	8,307	14,680	19,720	23,100	25,220	26,590	26,530	26,470	21,710	3,198	2,070
10	7,256	8,444	15,030	19,800	23,190	25,270	26,640	26,380	26,280	21,300	2,950	2,261
11	7,272	8,684	15,220	19,890	23,290	25,350	26,680	26,210	26,130	20,800	2,776	2,453
12	7,234	9,015	15,400	19,960	23,420	25,420	26,700	26,100	25,760	20,120	2,657	2,671
13	7,185	9,208	15,610	20,070	23,510	25,510	26,720	25,880	25,730	19,260	2,500	2,939
14	7,136	9,477	15,750	20,230	23,570	25,580	26,740	25,740	26,040	18,540	2,257	3,283
15	7,066	9,785	15,920	20,300	23,620	25,660	26,750	25,630	26,120	17,810	2,034	3,582
16	7,039	10,080	16,060	20,440	23,670	25,750	26,760	25,600	26,120	17,060	1,857	3,791
17	6,943	10,350	16,200	20,630	23,740	25,800	26,770	25,640	26,120	16,300	1,725	4,018
18	6,832	10,540	16,380	20,730	23,810	25,840	26,770	25,610	26,010	15,390	1,607	4,203
19	6,619	10,710	16,570	20,850	23,890	25,860	26,780	25,530	25,730	14,450	1,482	4,515
20	6,527	10,950	16,740	20,950	24,030	25,880	26,780	25,400	25,530	13,550	1,446	4,800
21	6,532	11,140	16,990	21,110	24,110	25,900	26,780	25,160	25,260	12,590	1,412	5,146
22	6,542	11,360	17,140	21,210	24,160	25,910	26,780	24,910	24,940	11,590	1,407	5,377
23	6,547	11,620	17,290	21,290	24,200	25,930	26,780	24,690	24,410	10,760	1,412	5,560
24	6,557	11,820	17,410	21,480	24,240	25,950	26,780	24,520	23,830	9,938	1,387	5,607
25	6,578	12,020	17,470	21,590	24,300	26,000	26,780	24,700	23,300	9,257	1,314	5,626
26	6,588	12,250	17,510	21,700	24,350	26,060	26,790	25,000	22,810	8,624	1,292	5,847
27	6,598	12,450	17,690	21,820	24,440	26,110	26,800	25,160	22,340	8,130	1,289	6,111
28	6,614	12,690	17,850	21,910	24,510	26,140	26,800	25,190	21,880	7,677	1,289	6,435
29	6,624	12,940	18,060	22,000	24,640	26,170	26,820	25,260	21,340	7,360	1,292	6,614
30	6,635	13,140	18,300	22,060	-	26,200	26,850	25,370	21,070	7,001	1,289	6,754
31	6,655	-	18,490	22,120	-	26,220	-	25,550	-	6,527	1,287	-

Monthly gage height and contents, water year October 1939 to September 1940

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	28.86	8,049	-
Oct. 31	26.32	6,655	-1,394
Nov. 30	36.55	13,140	+6,485
Dec. 31	43.33	18,480	+5,340
Calendar year 1939	-	-	-17,980
Jan. 31	47.36	22,120	+3,640
Feb. 29	49.96	24,640	+2,520
Mar. 31	51.50	26,220	+1,580
Apr. 30	52.09	26,850	+630
May 31	50.85	25,550	-1,300
June 30	46.25	21,070	-4,480
July 31	26.07	6,527	-14,543
Aug. 31	12.78	1,287	-5,240
Sept.30	26.51	6,754	+5,467
Water year 1939-40	-	-	-1,295

Big Lost River below Mackay Reservoir, near Mackay, Idaho

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

Records available.- December 1903 to August 1906, May 1912 to March 1915, and January 1919 to September 1940. April 1913 to March 1915 at site 1 mile downstream.

Average discharge.- 24 years (1904-5, 1912-14, 1919-40), 255 second-feet.

Extremes.- Maximum discharge during year, 835 second-feet June 19 (gage height, 3.09 feet); minimum, 41 second-feet Sept. 12 (gage height, 1.36 feet).
1903-6, 1912-15, 1919-40: Maximum discharge, 2,990 second-feet June 10, 1921 (gage height, 5.79 feet); minimum, 18 second-feet Nov. 1, 1934; minimum gage height, 1.23 feet Nov. 5-8, 1926.

Remarks.- Records good. Sharp ditch is only diversion between station and reservoir; many above reservoir. Flow regulated by Mackay Reservoir (see p. 79).

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	h264	172	63	77	101	115	118	115	775	461	365	172
2	h264	172	63	77	104	115	118	130	775	361	356	165
3	h264	121	63	80	104	115	118	133	745	235	361	159
4	h247	58	63	80	104	115	118	133	745	201	365	139
5	247	58	65	82	104	115	118	127	745	165	356	127
6	243	58	65	82	106	115	115	127	715	146	347	118
7	216	58	68	82	109	115	115	115	685	233	333	109
8	216	58	68	82	109	115	116	179	597	356	324	115
9	216	58	68	85	109	115	115	204	560	398	307	118
10	197	58	70	87	112	116	112	149	555	452	272	118
11	197	58	72	90	112	115	112	139	597	525	239	124
12	204	58	72	90	112	116	112	224	658	550	226	77
13	220	58	72	93	112	115	109	235	685	580	231	58
14	220	58	72	90	115	115	109	293	745	592	268	54
15	220	58	72	90	112	118	109	374	775	580	251	54
16	183	58	72	90	112	121	115	471	775	570	243	58
17	228	58	72	96	112	121	115	427	775	570	226	60
18	255	58	72	96	112	121	118	496	805	624	208	63
19	281	58	72	98	112	121	118	602	835	624	204	68
20	251	60	72	98	112	121	115	602	835	608	204	70
21	179	60	72	98	112	121	115	597	835	630	194	72
22	179	60	72	98	112	121	115	540	835	646	183	72
23	179	63	72	98	112	121	115	575	805	619	183	72
24	179	63	75	98	112	121	115	602	775	540	183	85
25	179	63	75	98	112	121	115	674	745	500	190	106
26	176	63	75	98	112	121	115	745	680	471	190	112
27	176	63	77	98	115	121	115	745	646	422	179	112
28	176	63	77	98	118	121	115	745	560	403	172	112
29	176	63	77	101	118	118	115	745	550	365	172	112
30	176	63	77	101	-	118	115	775	525	365	172	112
31	172	-	77	101	-	118	-	775	-	374	172	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,580	281	172	212	13,050
November	2,077	172	58	69.2	4,120
December	2,202	77	63	71.0	4,370
Calendar year 1939	82,459	624	58	226	163,600
January	2,832	101	77	91.4	5,620
February	3,208	118	101	111	6,360
March	3,655	121	115	118	7,250
April	3,444	118	109	115	6,830
May	12,793	775	115	413	25,370
June	21,328	835	525	711	42,300
July	14,166	646	146	457	28,100
August	7,680	365	172	248	15,230
September	2,993	172	54	99.8	5,940
Water year 1939-40	82,958	835	54	227	164,500

h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Warm Spring Creek (east channel) near Mackay, Idaho

Location.- Water-stage recorder, lat. 43°58', long. 113°45', in NE¼ sec. 5, T. 7 N., R. 23 E., 700 feet upstream from confluence with west channel of Warm Spring Creek, and about 7⅞ miles northwest of Mackay.

Records available.- May 1919 to September 1940.

Average discharge.- 21 years, 28.1 second-feet.

Extremes.- Maximum discharge recorded during year, 59 second-feet Sept. 9 (gage height, 2.16 feet); minimum, 10 second-feet May 10-13; minimum gage height 1.38 feet May 10. 1919-40: Maximum discharge, 225 second-feet June 15, 1922; minimum, 9 second-feet May 8, 9, 13, 14, 1919, and May 18-21, 1920.

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

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	16	17	16	16	15	15	16	53	21	16	17
2	18	16	17	16	16	15	15	16	54	23	16	17
3	17	16	17	16	16	15	15	16	55	22	16	17
4	17	16	17	16	16	15	14	15	54	23	15	18
5	17	16	17	16	16	15	14	14	50	23	16	17
6	17	16	17	16	16	15	14	13	43	22	16	17
7	17	16	17	16	16	15	14	13	38	21	16	18
8	17	17	17	16	16	15	14	12	34	19	16	18
9	17	17	17	16	16	15	14	11	30	18	16	22
10	17	17	17	16	16	15	14	10	26	18	16	24
11	17	17	17	16	16	15	13	10	24	17	15	21
12	17	17	16	16	16	15	13	10	27	16	15	a21
13	16	17	16	16	15	15	13	10	36	16	15	a22
14	16	17	16	16	15	15	13	12	45	16	15	22
15	16	17	16	16	15	15	13	13	45	16	15	22
16	16	17	16	16	15	15	13	19	44	16	14	22
17	16	17	16	16	15	16	13	22	40	16	15	21
18	16	17	16	16	15	16	13	23	41	15	15	22
19	16	17	16	15	15	15	13	23	42	15	15	22
20	15	17	16	16	15	15	14	25	47	14	16	22
21	15	17	15	16	16	15	13	25	43	14	18	23
22	15	17	15	16	16	16	13	24	36	16	19	22
23	15	17	15	16	16	16	13	26	31	15	19	22
24	15	17	15	16	15	16	13	32	27	15	18	22
25	15	17	15	16	15	15	15	39	26	16	19	22
26	15	17	16	16	15	15	16	46	26	16	19	22
27	16	17	16	16	15	15	16	50	25	16	18	23
28	16	17	16	16	15	15	16	50	23	16	18	25
29	16	17	16	16	15	15	16	48	21	16	18	26
30	16	17	16	16	-	15	16	46	20	16	17	23
31	16	-	16	16	-	15	-	46	-	16	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	502	18	15	16.2	996
November	503	17	16	16.8	998
December	502	17	15	16.2	996
Calendar year 1939	6,470	37	13	17.7	12,840
January	495	16	15	16.0	982
February	450	16	15	15.5	893
March	470	16	15	15.2	932
April	421	16	13	14.0	835
May	737	50	10	23.8	1,460
June	1,106	55	20	36.9	2,190
July	539	23	14	17.4	1,070
August	509	19	14	16.4	1,010
September	632	26	17	21.1	1,250
Water year 1939-40	6,866	55	10	18.8	13,610

a No gage-height record; discharge interpolated.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Warm Spring Creek (west channel) near Mackay, Idaho

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

Records available.- May 1919 to September 1940.

Average discharge.- 21 years, 90.5 second-feet.

Extremes.- Maximum discharge during year, 202 second-feet Sept. 9 (gage height, 2.41 feet); minimum, 52 second-feet May 10 (gage height, 1.12 feet).
1919-40: Maximum discharge, 600 second-feet (estimated) Aug. 11, 1936 (gage height, 4.42 feet datum then in use, from floodmark); minimum, 49 second-feet Apr. 27, 1935 (gage height, 0.62 foot, datum then in use).

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

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	75	84	82	79	79	73	77	130	82	61	75
2	86	75	84	82	79	78	72	77	130	86	61	77
3	84	75	84	82	79	78	72	75	131	84	61	78
4	84	77	84	82	79	78	72	73	133	84	60	78
5	86	77	84	82	78	78	73	66	128	86	59	77
6	86	78	83	82	79	79	72	62	119	83	58	78
7	84	80	84	82	78	79	72	62	112	80	59	79
8	84	82	84	82	78	79	70	61	106	77	60	82
9	84	83	84	82	78	79	68	58	101	75	60	95
10	84	83	84	83	79	79	68	54	94	74	60	109
11	84	83	82	82	79	79	66	53	91	72	60	97
12	84	83	80	83	79	78	66	53	96	69	60	97
13	83	83	82	80	79	78	63	55	109	66	59	99
14	82	84	82	80	80	78	63	59	120	67	59	97
15	82	86	80	82	79	78	64	64	121	66	59	97
16	82	86	82	78	79	78	64	73	120	67	59	96
17	82	84	82	79	79	77	63	79	114	66	59	95
18	79	84	82	80	79	77	63	84	113	63	60	94
19	79	84	82	79	79	77	63	84	113	62	60	94
20	75	87	82	82	79	77	66	87	119	61	63	95
21	75	86	82	82	79	77	66	88	114	61	74	97
22	73	86	82	82	79	77	64	88	104	61	74	96
23	74	84	82	80	79	77	63	92	97	61	75	95
24	74	84	82	80	79	77	63	101	92	62	77	95
25	73	84	82	80	79	77	69	109	92	62	75	95
26	73	84	83	79	80	74	74	117	92	63	79	95
27	72	84	82	79	80	73	78	120	88	64	77	99
28	70	84	82	79	82	73	79	123	84	63	77	106
29	70	84	82	79	80	73	77	126	82	61	75	109
30	73	83	82	79	-	72	77	123	80	62	74	101
31	74	-	82	79	-	73	-	124	-	6[illegible]	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,459	86	70	79.3	4,880
November	2,472	87	75	82.4	4,900
December	2,558	84	80	82.5	5,070
Calendar year 1939	29,998	121	61	82.2	59,500
January	2,504	83	78	80.8	4,970
February	2,294	82	78	79.1	4,550
March	2,386	79	72	77.0	4,730
April	2,063	79	63	68.8	4,090
May	2,567	126	53	82.8	5,090
June	3,225	133	80	108	6,400
July	2,151	86	61	69.4	4,270
August	2,028	79	58	65.4	4,020
September	2,777	109	75	92.6	5,510
Water year 1939-40	29,484	133	53	80.6	58,480

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Sharp ditch near Mackay, Idaho

Location.- Water-stage recorder and sharp-crested weir, lat. 43°57', long. 113°39', in sec. 7, T. 7 N., R. 24 E., 1,600 feet downstream from head of ditch, three-quarters of a mile downstream from Mackay Reservoir, and 3½ miles northwest of Mackay.

Records available.- June 1912 to October 1914, March 1919 to September 1940.

Extremes.- Maximum discharge recorded during year, 23 second-feet May 19 (gage height, 1.01 feet); minimum, 0.4 second-foot Jan. 13 to Feb. 13.
1912-14, 1919-40: Maximum discharge observed, 42 second-feet June 23, 1921; no flow at times.

Remarks.- Records good. Sharp ditch diverts from east side of Big Lost River in SE¼ sec. 12, T. 7 N., R. 23 E., half a mile below Mackay Reservoir and 1 mile above station on Big Lost River below Mackay Reservoir, near Mackay. Water used for irrigation northwest of Mackay and above Streeter ditch. Hentze ditch diverts from Sharp ditch above station and, according to watermaster, carried 96.9 acre-feet during the irrigation season (5.0 in May, 30 in June, 52 in July, and 9.9 in August).

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	1.2	2.3	4.5	0.4	0.6	0.7	1.1	14	17	17	7.4
2	10	1.2	2.4	4.6	.4	.6	.7	2.8	14	17	17	6.5
3	5.4	.9	2.5	4.6	.4	.6	.8	3.9	14	14	17	6.1
4	4.6	.6	2.5	4.7	.4	.6	.8	8.5	14	14	17	5.9
5	4.2	.6	2.6	4.8	.4	.6	.8	12	14	13	17	5.2
6	3.8	.6	2.7	4.9	.4	.6	.8	12	16	13	16	4.4
7	3.1	.6	2.7	4.9	.4	.6	.8	12	17	14	16	2.7
8	3.0	.5	2.8	h5.0	.4	.6	.8	12	16	12	16	1.8
9	3.0	.5	2.9	5.0	.4	.6	.8	13	17	9.2	14	1.8
10	2.4	.5	3.0	5.0	.4	.6	.8	11	17	8.3	12	2.3
11	2.3	.5	3.0	5.0	.4	.6	.9	11	18	8.1	9.8	3.8
12	2.0	.8	h3.1	3.0	.4	.6	.9	11	18	8.5	8.8	2.2
13	2.5	1.0	3.2	.4	.4	h.6	.9	12	18	10	8.8	.6
14	2.5	1.0	3.2	.4	.5	.6	.9	13	18	12	11	.5
15	2.5	1.0	3.3	.4	.5	.6	.9	14	20	15	13	.5
16	2.0	1.0	3.4	.4	.5	.6	.9	20	20	18	16	.7
17	2.5	1.4	3.5	.4	.5	.6	.9	20	19	18	14	.8
18	3.1	2.7	3.5	.4	.5	.6	1.0	21	20	18	12	1.2
19	3.4	1.9	3.6	.4	.5	.6	1.0	22	21	20	11	1.3
20	2.8	1.5	3.7	.4	.5	h.6	1.0	21	21	20	10	1.4
21	1.4	1.5	3.7	.4	.5	.6	1.0	19	20	21	9.0	1.8
22	1.4	1.6	3.8	.4	.5	.6	1.0	17	20	21	9.2	1.9
23	1.3	1.8	3.9	.4	.5	.6	1.0	17	20	19	9.2	1.9
24	1.3	1.8	3.9	.4	.5	.6	1.0	15	20	18	8.8	2.7
25	1.3	1.9	4.0	.4	.5	.6	1.1	14	19	20	9.0	4.1
26	1.3	2.0	4.1	.4	.5	.6	1.1	13	18	18	9.0	4.8
27	1.2	2.0	4.2	.4	.5	.7	1.1	13	19	16	8.3	4.8
28	1.2	2.1	4.2	.4	.5	.7	1.1	13	19	16	7.8	4.8
29	1.2	2.2	4.3	.4	.6	.7	1.1	14	19	15	7.6	5.0
30	1.2	2.3	4.4	.4	-	.7	1.1	15	18	16	7.6	4.8
31	1.2	-	4.4	h.4	-	.7	-	15	-	18	7.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	90.1	11	1.2	2.91	179
November	39.2	2.7	.5	1.31	78
December	104.8	4.4	2.3	3.38	208
Calendar year 1939	2,475.2	25	0	6.78	4,920
January	63.6	5.0	.4	2.05	126
February	13.3	.6	.4	.46	26
March	19.1	.7	.6	.62	38
April	27.7	1.1	.7	.92	55
May	418.3	22	1.1	13.5	830
June	538	21	14	17.9	1,070
July	477.1	21	8.1	15.4	946
August	366.7	17	7.6	11.8	727
September	93.7	7.4	.5	3.12	186
Water year 1939-40	2,251.6	22	.4	6.15	4,470

h Computed from staff-gage reading.

Note.- No gage-height record Nov. 26 to Apr. 30, except where staff-gage readings are shown; discharge interpolated or computed on basis of gate changes and records for station on Big Lost River below Mackay Reservoir, near Mackay.

Portneuf River at Topaz, Idaho

Location.- Staff gage, lat. 42°38', long. 112°06', in sec. 23, T. 9 S., R. 37 E., at Oregon Short Line Railroad bridge, a quarter of a mile west of Topaz, 1¼ miles upstream from diversion dam of Portneuf-Marsh Valley Canal Co., and 6 miles southeast of McCammon.

Records available.- January 1913 to September 1915, July 1919 to September 1940.

Average discharge.- 21 years (1913-14, 1919-22, 1923-40), 192 second-feet.

Extremes.- Maximum discharge observed during year, 230 second-feet June 6 (gage height, 1.75 feet); minimum observed, 81 second-feet Sept. 13, 17 (gage height, 0.96 foot).
1913-15, 1919-40: Maximum discharge observed, 902 second-feet Apr. 3, 1913 (gage height, 6.1 feet, site and datum then in use); minimum observed, 65 second-feet Oct. 9, 1934 (gage height, 0.81 foot).

Remarks.- Records good. Gage read once daily. Flow regulated by Portneuf-Marsh Valley Canal Co.'s reservoir near Chesterfield. Many ranch diversions above station.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	119	128	130	136	202	155	160	210	128	104	99
2	109	122	130	132	136	196	153	159	210	124	109	90
3	113	124	126	134	138	182	149	143	210	121	106	102
4	113	122	126	138	140	182	147	142	210	113	106	102
5	113	122	126	136	138	178	151	142	216	109	102	97
6	117	122	128	134	138	180	151	142	230	95	106	97
7	121	122	128	134	134	159	149	142	216	93	99	97
8	121	122	128	134	134	162	151	128	214	90	102	95
9	121	122	130	136	134	162	155	124	210	95	106	84
10	121	122	130	140	132	164	170	119	206	99	104	84
11	121	122	128	136	132	153	162	124	202	108	106	82
12	121	122	130	134	132	153	149	147	194	100	102	84
13	121	122	130	128	132	155	151	159	178	100	100	81
14	122	126	130	128	130	153	162	186	172	100	99	82
15	122	126	130	124	130	151	166	180	182	99	100	82
16	124	126	130	128	132	151	166	176	190	100	99	82
17	124	126	130	130	132	151	162	168	194	100	99	81
18	128	126	122	130	132	151	164	151	192	100	95	87
19	128	126	126	115	132	151	166	145	198	108	100	108
20	126	126	126	126	132	147	182	145	200	104	97	106
21	126	126	126	122	132	145	174	145	204	106	100	99
22	126	126	126	124	132	143	174	147	198	108	100	99
23	126	126	122	126	132	143	174	155	194	104	99	97
24	126	126	126	130	132	151	180	136	194	104	97	95
25	126	126	126	128	136	168	180	128	190	104	99	95
26	126	130	122	132	143	174	182	159	182	104	102	95
27	128	128	130	134	186	180	180	180	162	102	102	106
28	124	126	130	134	222	172	176	174	151	104	100	111
29	124	128	130	132	214	153	178	174	130	102	99	111
30	124	128	130	136	-	153	172	180	109	99	99	111
31	119	-	130	138	-	155	-	208	-	106	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,770	128	109	122	7,480
November	3,737	130	119	125	7,410
December	3,960	130	122	128	7,850
Calendar year 1939	56,726	460	87	155	112,500
January	4,063	140	115	131	8,060
February	4,105	222	130	142	8,140
March	5,020	202	143	162	9,960
April	4,931	182	147	164	9,780
May	4,768	208	119	154	9,460
June	5,748	230	109	192	11,400
July	3,229	128	90	104	6,400
August	3,135	109	95	101	6,220
September	2,841	111	81	94.7	5,640
Water year 1939-40	49,307	230	81	135	97,800

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Portneuf River at Pocatello, Idaho

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

Records available.- August 1911 to September 1940. May 1897 to October 1899, at site 1 mile upstream.

Average discharge.- 27 years (1912-16, 1917-40), 249 second-feet.

Extremes.- Maximum discharge during year, 460 second-feet Feb. 29 (gage height, 4.82 feet); minimum discharge, 18 second-feet Aug. 17 (gage height, 2.28 feet).
1897-99, 1911-40: Maximum discharge, more than 2,000 second-feet sometime during period May 13 to June 14, 1917; minimum, 14 second-feet July 4-11, 13, 17, 18, 1898.

Remarks.- Records good except for those for periods of ice effect, which are fair. Many diversions above station for irrigation. Flow regulated by reservoir near Chesterfield.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	132	184	250	218	438	374	186	49	45	41	62
2	93	130	186	270	222	406	395	173	48	56	42	64
3	97	135	188	300	231	384	384	168	47	70	42	76
4	101	142	197	300	250	353	364	168	45	82	41	95
5	98	142	204	290	290	342	353	161	46	74	45	95
6	95	159	204	270	311	322	364	147	64	67	45	89
7	100	180	204	270	311	311	311	134	80	70	40	88
8	102	168	206	260	300	311	290	118	68	65	40	86
9	98	138	208	270	290	311	300	110	85	57	43	81
10	95	138	208	290	290	311	311	101	77	56	40	81
11	94	152	212	300	280	311	300	89	88	58	38	80
12	95	168	212	280	290	300	270	98	80	50	35	95
13	95	170	222	260	260	280	260	114	70	46	32	93
14	93	161	229	240	250	280	260	130	65	55	32	94
15	91	154	233	250	250	270	280	122	64	48	31	88
16	102	152	229	260	250	280	280	98	61	45	27	82
17	113	147	225	239	240	280	270	95	a58	50	25	79
18	101	148	204	223	242	280	250	80	a56	53	27	81
19	108	150	218	155	239	280	250	81	a53	49	33	94
20	111	150	210		237	280	260	84	a51	49	34	113
21	111	161	218		231	280	244	75	h48	48	46	121
22	111	170	216		233	290	248	76	49	42	56	114
23	111	173	208		240	300	246	70	48	38	45	102
24	111	171	214	b250	244	311	237	65	58	33	41	101
25	111	171	214		260	322	235	63	53	47	53	100
26	121	171	208		290	332	235	57	48	40	67	98
27	127	171	b190		342	374	223	56	45	39	59	100
28	126	177	b200		395	416	216	59	31	42	49	101
29	126	180	b210		449	384	212	47	36	37	67	113
30	124	184	b225	227	-	364	197	56	37	32	59	116
31	124	-	227	218	-	364	-	54	-	35	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,276	127	91	106	6,500
November	4,745	184	130	158	9,410
December	6,513	233	184	210	12,920
Calendar year 1939	70,162	740	36	192	139,200
January	7,922	300	155	256	15,710
February	7,935	449	218	274	15,740
March	10,067	438	270	325	19,970
April	8,421	395	197	281	16,700
May	3,135	186	47	101	6,220
June	1,728	68	31	57.6	3,430
July	1,578	82	32	50.9	3,130
August	1,337	67	25	43.1	2,650
September	2,782	121	62	92.7	5,520
Water year 1939-40	59,439	449	25	162	117,900

a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Birch Creek near Downey, Idaho

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

Records available.- September 1937 to September 1940. October 1911 to August 1914, at site about 1¼ miles upstream.

Extremes.- Maximum discharge observed during year, 13 second-feet May 12-15; maximum gage height observed, 1.05 feet May 13, 14; minimum discharge observed, 5.6 second-feet Mar. 5; minimum gage height observed, 0.74 foot Mar. 18.
1911-14, 1937-40: Maximum discharge observed, 95 second-feet July 15, 1938, by velocity-area method on basis of floodmark at measuring section; minimum observed, 3.4 second-feet Dec. 24-27, 1913.

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

Cooperation.- Gage-height record furnished by Western States Utility Co. in connection with a Federal Power Commission project.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	6.5	6.3	6.7	6.3	5.7	10	11	8.8	7.2	6.5	6.5
2	7.2	6.5	6.3	6.7	6.3	5.7	10	12	9.0	7.2	6.5	6.5
3	7.0	6.7	6.3	6.7	6.3	5.7	10	12	9.0	7.2	6.5	6.9
4	7.0	6.5	6.3	6.9	6.5	5.9	10	11	9.0	7.2	6.5	6.5
5	7.0	6.7	6.3	7.0	6.5	5.6	10	12	9.0	7.2	6.5	6.5
6	7.0	6.5	6.3	6.9	6.3	5.7	10	12	8.8	7.2	6.5	6.5
7	7.0	6.5	6.3	6.9	6.3	5.9	10	12	8.8	6.9	6.5	6.5
8	7.0	6.5	6.3	6.9	6.3	5.9	10	12	8.8	6.9	6.3	6.7
9	7.0	6.5	6.5	6.9	6.3	5.9	10	12	8.8	6.9	6.5	6.5
10	7.0	6.5	6.3	7.0	6.3	5.7	10	12	8.4	7.0	6.5	6.5
11	7.0	6.3	6.3	6.9	6.3	5.7	10	12	8.2	7.2	6.5	6.5
12	7.0	6.5	6.3	6.7	6.3	5.7	10	13	8.2	7.2	6.5	6.9
13	7.0	6.3	6.3	6.7	6.1	5.7	10	13	8.0	7.2	6.5	6.9
14	7.0	6.5	6.3	6.7	6.1	5.7	11	13	7.8	6.9	6.5	6.5
15	6.9	6.3	6.3	6.7	6.1	5.7	11	13	7.6	6.9	6.5	6.5
16	6.5	6.3	6.5	6.5	6.1	5.7	11	12	7.6	6.9	6.5	6.5
17	6.7	6.3	6.3	6.3	6.1	5.7	11	12	7.6	6.9	6.5	6.5
18	6.7	6.3	6.3	6.1	6.1	5.9	11	12	7.4	6.9	6.5	6.7
19	6.5	6.3	6.3	6.1	5.9	6.1	12	12	7.4	6.9	6.9	7.6
20	6.5	6.3	6.5	6.5	5.9	6.3	12	11	7.4	6.9	6.7	6.7
21	6.5	6.3	6.3	6.1	5.9	6.5	12	11	7.4	6.9	6.7	6.7
22	6.5	6.3	6.3	6.5	5.9	7.0	12	11	7.4	6.9	6.7	6.5
23	6.3	6.3	6.3	6.5	5.9	7.2	12	11	7.2	6.9	6.7	6.5
24	6.3	6.3	6.3	6.3	5.9	7.8	12	11	7.2	6.9	6.5	6.5
25	6.5	6.3	6.3	6.5	5.9	7.6	12	11	7.2	6.9	6.5	6.5
26	6.7	6.3	6.3	6.5	5.7	7.6	12	9.8	7.2	6.9	6.5	6.5
27	6.7	6.3	6.5	6.5	6.5	11	12	9.6	7.2	6.9	6.5	6.9
28	6.7	6.3	6.7	6.5	6.1	10	12	9.2	7.0	6.9	6.5	6.7
29	6.7	6.3	6.5	6.5	6.1	9.6	11	9.2	7.2	6.5	6.5	6.5
30	6.5	6.3	6.5	6.5	-	10	11	9.2	6.9	6.9	6.5	6.5
31	6.5	-	6.5	6.3	-	10	-	9.2	-	6.7	6.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	210.1	7.2	6.3	6.78	417
November	191.8	6.7	6.3	6.39	380
December	197.1	6.7	6.3	6.36	391
Calendar year 1939	2,771.4	14	6.2	7.59	5,500
January	204.5	7.0	6.1	6.60	406
February	178.3	6.5	5.7	6.15	354
March	210.2	11	5.6	6.78	417
April	327.0	12	10	10.9	649
May	352.2	13	9.2	11.4	699
June	237.5	9.0	6.9	7.92	471
July	216.1	7.2	6.5	6.97	429
August	202.5	6.9	6.3	6.53	402
September	198.7	7.6	6.5	6.62	394
Water year 1939-40	2,726.0	13	5.6	7.45	5,410

North Side Minidoka canal near Minidoka, Idaho

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

Records available.- May 1909 to September 1940.

Extremes.- Maximum discharge during year, 1,660 second-feet May 30 (gage height, 9.55 feet); no flow during winter.
1909-40: Maximum discharge, 1,680 second-feet July 14, 21-31, Aug. 1, 1938; maximum gage height, 9.90 feet July 11, 1932; no flow during winters.

Remarks.- Records excellent. Flow controlled by operation of head gates. Water used for irrigation of 62,000 acres of land under North Side Minidoka project.

Cooperation.- Gage-height record and results of 3 discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	604	397	308				0	879	1,560	1,590	1,400	1,160
2	390	395	116				0	997	1,530	1,600	1,430	1,160
3	392	394	0				0	1,080	1,500	1,590	1,430	1,140
4	394	390	0				0	1,190	1,420	1,580	1,470	950
5	397	388	0				0	1,260	1,340	1,580	1,530	741
6	397	387	0				0	1,280	1,290	1,590	1,560	677
7	399	383	0				0	1,480	1,240	1,590	1,560	555
8	399	382	0				0	1,550	1,240	1,590	1,560	549
9	400	378	0				0	1,580	1,240	1,590	1,550	551
10	404	378	0				86	1,580	1,240	1,600	1,560	545
11	404	382	0				161	1,580	1,310	1,600	1,570	540
12	404	383	0				258	1,580	1,430	1,610	1,570	547
13	404	385	0				370	1,580	1,480	1,630	1,560	479
14	406	387	0				413	1,580	1,510	1,640	1,560	375
15	404	390	0				411	1,570	1,510	1,640	1,550	375
16	406	390	0				413	1,620	1,520	1,640	1,550	373
17	404	388	0				409	1,650	1,550	1,590	1,560	376
18	400	387	0				409	1,650	1,570	1,590	1,560	376
19	400	383	0				413	1,650	1,570	1,590	1,540	390
20	399	382	0				472	1,650	1,570	1,560	1,470	390
21	399	336	0				517	1,650	1,590	1,540	1,440	383
22	399	304	0				581	1,650	1,580	1,510	1,440	392
23	397	305	0				687	1,650	1,580	1,480	1,440	380
24	395	305	0				791	1,650	1,590	1,470	1,400	373
25	394	305	0				831	1,650	1,590	1,420	1,340	365
26	394	305	0				833	1,650	1,590	1,380	1,310	357
27	394	305	0				833	1,650	1,590	1,350	1,240	352
28	394	306	0				833	1,650	1,580	1,320	1,180	350
29	395	308	0				833	1,650	1,580	1,310	1,180	339
30	397	308	0				835	1,660	1,570	1,360	1,170	323
31	397	-	0				-	1,620	-	1,380	1,160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	12,562	604	390	405	24,920
November	10,816	397	304	361	21,450
December	424	308	0	13.7	841
Calendar year 1939	255,580	1,670	0	700	506,900
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	11,389	835	0	380	22,590
May	47,216	1,660	879	1,523	93,650
June	44,460	1,590	1,240	1,482	88,190
July	47,510	1,640	1,310	1,533	94,230
August	44,840	1,570	1,160	1,446	88,940
September	15,863	1,160	323	529	31,460
Water year 1939-40	235,080	1,660	0	642	466,300

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

South Side Minidoka canal near Minidoka, Idaho

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

Records available.- April 1909 to September 1940.

Extremes.- Maximum discharge during year, 1,350 second-feet July 9-11 (gage height, 6.03 feet); no flow during winter.
1909-40: Maximum discharge, 1,350 second-feet July 19, 20, 23-25, 1938, July 9-11, 1940; no flow during winters.

Remarks.- Records excellent except those Sept. 14-30, which are good. Flow controlled by operation of head gates. Water diverted from Snake River at Minidoka Dam for irrigation of 54,000 acres of land under South Side Minidoka project.

Cooperation.- Gage-height record and results of 4 discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	515	220					0	428	1,210	1,250	1,210	676
2	217	239					0	361	1,260	1,280	1,260	795
3	217	90					0	428	1,060	1,270	1,270	715
4	199	0					0	547	1,080	1,220	1,240	463
5	196	0					0	581	1,060	1,300	1,260	262
6	196	0					0	725	916	1,320	1,270	320
7	196	0					0	928	913	1,300	1,250	283
8	196	0					0	1,140	925	1,330	1,260	306
9	198	0					0	1,280	901	1,350	1,290	228
10	199	0					0	1,330	998	1,350	1,290	236
11	198	0					0	1,310	1,060	1,350	1,270	536
12	196	0					63	1,320	1,160	1,340	1,260	704
13	196	0					188	1,310	1,280	1,330	1,270	567
14	196	0					192	1,280	1,310	1,330	1,260	255
15	194	0					192	1,260	1,240	1,330	1,260	218
16	194	0					192	1,280	1,150	1,330	1,280	193
17	194	0					190	1,290	1,080	1,290	1,250	204
18	194	0					242	1,290	1,140	1,290	1,240	273
19	194	0					281	1,270	1,170	1,300	1,260	255
20	194	0					288	1,280	1,220	1,260	1,250	174
21	220	0					281	1,280	1,220	1,220	1,250	193
22	239	0					281	1,280	1,190	1,220	1,220	198
23	236	0					281	1,300	1,190	1,270	1,180	188
24	237	0					281	1,320	1,210	1,290	1,000	182
25	237	0					438	1,320	1,240	1,290	812	177
26	236	0					538	1,300	1,210	1,290	712	170
27	218	0					540	1,300	1,250	1,290	768	157
28	204	0					543	1,310	1,270	1,250	768	134
29	204	0					545	1,270	1,250	1,180	795	108
30	199	0					538	1,220	1,230	1,150	807	130
31	199	0					-	1,200	-	1,170	771	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,708	515	194	216	13,300
November	549	239	0	18.3	1,090
December	0	0	0	0	0
Calendar year 1939	174,456	1,270	0	478	346,000
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	6,094	545	0	203	12,090
May	34,738	1,330	361	1,121	68,900
June	34,293	1,310	901	1,143	68,020
July	39,740	1,350	1,150	1,282	78,820
August	35,283	1,290	712	1,138	69,980
September	9,300	795	108	310	18,450
Water year 1939-40	166,705	1,350	0	455	330,600

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Goose Creek above Trapper Creek, near Oakley, Idaho

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

Records available.- April 1911 to September 1916, March 1919 to September 1940.

Average discharge.- 17 years (1911-14, 1926-40), 38.4 second-feet.

Extremes.- Maximum discharge during year, 84 second-feet Apr. 16 (gage height, 2.57 feet); no flow July 22 to Sept. 25.
1911-16, 1919-40: Maximum discharge, 744 second-feet Mar. 18, 1939, from rating curve extended above 250 second-feet by logarithmic plotting; maximum gage height, 5.6 feet Feb. 21, 1927 (ice effect); no flow July 22 to Aug. 10, Aug. 22-30, 1934, Aug. 15 to Oct. 3, 1935, July 22 to Sept. 25, 1940.

Remarks.- Records good except those for Dec. 22 to Feb. 25, which are fair. Diversions above station for irrigation. Flow of artesian well, completed in 1935, enters below. Practically entire flow passing station is stored in Oakley Reservoir.

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

Rating table, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 12 to July 21)

1.0	0.1	1.6	8.8	2.2	45.5
1.2	.9	1.8	17.4	2.4	65
1.4	3.8	2.0	29.6	2.6	87

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	12	18			37	56	62	8.2	2.6		0
2	6.0	11	18			40	62	57	8.8	2.1		0
3	6.3	11	18			40	64	54	9.2	2.0		0
4	7.7	12	18			37	61	49	16	2.1		0
5	7.4	12	19			34	59	46	22	1.7		0
6	8.8	13	17			33	56	47	26	1.6		0
7	9.9	13	18			31	54	46	26	1.3		0
8	12	13	17			30	54	47	24	1.1		0
9	11	14	17			32	58	48	23	1.0		0
10	12	15	17			33	58	45	.21	.9		0
11	12	13	17			34	60	39	12	.8		0
12	10	12	17			31	62	38	4.2	.4		0
13	10	13	16		a25	28	62	40	4.3	.4		0
14	9.9	14	16			31	63	43	4.5	.4		0
15	9.5	13	17	a25		31	68	38	4.6	.7		0
16	9.5	13	18			30	79	37	4.8	.2		0
17	9.2	15	17			30	74	35	4.9	.1		0
18	9.2	20	17			30	73	36	5.2	.1		0
19	9.2	17	19			30	67	32	5.6	.1		0
20	9.2	17	15			30	55	29	4.7	0		0
21	9.5	17	16			30	47	24	4.2	0		0
22	9.9	17				33	52	22	3.6	0		0
23	9.9	17				35	61	17	3.1	0		0
24	9.9	16				39	66	9.9	2.8	0		0
25	9.9	15				42	69	8.5	2.4	0		0
26	10	17	a18		28	47	72	10	2.8	0		.6
27	10	16			30	52	75	13	3.0	0		4.9
28	11	17			32	55	72	12	2.6	0		8.0
29	12	19			35	57	69	11	2.6	0		6.8
30	12	19			-	57	67	8.8	2.3	0		6.8
31	12	-			-	56	-	7.7	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	299.4	12	4.5	9.66	594
November	443	20	11	14.8	879
December	542	-	-	17.5	1,080
Calendar year 1939	12,653.9	552	.1	34.7	25,100
January	775	-	-	25.0	1,540
February	750	35	-	25.9	1,490
March	1,155	57	28	37.3	2,290
April	1,895	79	47	63.2	3,760
May	1,011.9	62	7.7	32.6	2,010
June	268.4	26	2.3	8.95	532
July	19.6	2.6	0	.63	39
August	0	0	0	0	0
September	27.1	8.0	0	.90	54
Water year 1939-40	7,186.4	79	0	19.6	14,270

a No gage-height record or affected by ice; discharge computed on basis of discharge measurement made on Jan. 16, weather records, records for nearby streams and Oakley Reservoir.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Oakley Reservoir near Oakley, Idaho

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

Records available.- October 1912 to September 1940.

Extremes.- Maximum contents observed, 16,300 acre-feet May 1 (gage height, 64.40 feet); minimum observed, 389 acre-feet Sept. 29 (gage height, 8.98 feet).
1913-40: Maximum contents observed, 74,600 acre-feet June 15, 1921 (gage height, 136.2 feet); reservoir drained at close of season in 1915, 1919, 1920, 1926, 1933.

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

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

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	5,680	-	10,200	13,000	16,200	-	6,220	-	-
2	2,900	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	10,900	-	-	-
4	-	-	4,250	-	8,180	10,500	-	-	-	-	-	-
5	2,120	-	-	-	-	-	-	-	-	-	2,610	-
6	1,760	2,790	-	-	8,360	-	-	16,000	-	-	2,400	576
7	1,800	-	-	6,120	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	14,000	-	-	6,000	-	-
9	-	-	-	-	-	-	-	-	-	-	-	640
10	-	-	-	-	-	-	-	-	10,400	-	2,410	-
11	-	-	4,640	-	-	11,100	-	-	-	-	-	-
12	-	-	-	-	8,880	-	-	-	-	-	1,960	-
13	-	3,100	-	-	-	-	-	14,600	-	-	1,800	-
14	-	-	-	-	-	11,300	-	-	-	-	-	407
15	-	3,180	4,880	6,780	9,090	-	14,800	-	-	4,610	-	-
16	1,980	-	-	6,870	-	-	-	-	-	-	-	458
17	-	-	-	-	-	-	-	-	9,290	-	-	-
18	-	-	5,040	-	-	11,600	-	-	-	-	-	499
19	-	-	-	-	9,410	-	-	13,200	-	-	1,490	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	1,210	-
22	-	-	-	-	-	-	15,800	-	-	3,750	-	627
23	-	3,600	-	7,220	-	-	-	-	-	-	-	640
24	2,220	-	-	-	-	-	-	-	8,400	-	-	-
25	-	-	5,410	-	-	12,200	-	-	8,160	-	-	-
26	-	-	-	-	9,860	-	-	12,100	-	-	-	-
27	-	3,780	-	-	-	-	-	11,900	-	-	-	-
28	-	-	-	-	-	12,500	-	-	-	-	-	-
29	-	-	-	7,640	-	-	16,100	-	6,840	3,170	870	389
30	2,480	-	-	-	-	-	-	-	-	-	892	444
31	-	-	-	-	-	-	-	-	-	-	908	-

9-238 September 1937 UNITED STATES DEPARTMENT OF THE INTERIOR
Geolog al Survey

Trapper Creek near Oakley, Idaho

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

Records available.- May 1911 to September 1916, March 1919 to September 1940.

Average discharge.- 16 years (1911-12, 1913-14, 1926-40), 13.2 second-feet.

Extremes.- Maximum discharge during year, 27 second-feet Oct. 6 (gage height, 5.09 feet); minimum, 3.5 second-feet Dec. 25 (gage height, 4.67 feet).
1911-16, 1919-40: Maximum discharge recorded, 98 second-feet May 28, June 8, 1921 (a higher flow may have occurred during cloudburst about midnight Aug. 15, 1931); minimum not determined, probably occurred during winter.

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

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a9.0	9.4	11	11	11	13	14	16	12	10	7.3	7.7
2	10	9.4	11	12	11	12	14	16	13	9.4	7.7	8.1
3	10	9.4	11	13	11	11	13	16	13	8.6	7.3	9.0
4	9.4	9.4	11	12	11	11	13	16	13	9.0	7.3	10
5	9.4	9.4	11	11	11	10	13	16	14	9.0	7.3	9.0
6	11	9.4	11	11	11	9.4	13	16	14	8.6	6.9	8.1
7	12	9.4	11	10	12	9.4	13	16	13	8.1	7.7	8.1
8	10	9.4	11	11	11	9.4	13	17	12	8.1	7.3	8.6
9	9.4	9.4	11	12	11	11	13	18	12	8.1	7.7	8.6
10	9.0	9.4	11	11	11	11	14	18	12	8.1	6.9	8.1
11	9.0	9.4	11	11	11	11	13	18	11	7.7	7.3	8.1
12	9.0	9.4	11	11	10	11	13	19	11	8.1	6.5	8.1
13	9.0	10	11	8.6	10	10	14	18	11	7.7	6.5	8.6
14	9.0	10	11	9.4	11	9.4	14	18	11	7.7	6.5	9.0
15	9.0	10	11	8.0	11	10	16	18	11	7.7	6.5	8.1
16	8.6	10	11	10	10	10	a17	17	11	7.7	6.9	8.1
17	8.6	10	11	12	11	10	a18	17	11	7.7	6.9	8.6
18	8.6	10	10	7.7	11	10	a17	16	11	7.3	6.9	9.0
19	8.6	10	10	8.6	11	10	a16	17	10	7.7	7.3	12
20	9.0	10	11	12	11	10	a16	16	10	7.7	7.3	11
21	9.0	10	11	11	11	11	a16	16	10	7.7	8.1	9.4
22	9.0	10	11	11	11	11	16	16	10	7.3	8.6	9.0
23	8.6	10	11	10	11	11	17	14	10	7.3	8.1	9.0
24	8.6	10	11	10	11	12	18	14	10	7.7	8.1	9.0
25	9.0	10	11	10	11	12	19	14	9.4	7.7	8.1	9.0
26	9.4	10	all	11	11	13	20	14	9.4	7.7	8.1	9.0
27	9.4	11	all	11	12	13	19	14	8.6	8.1	7.7	9.0
28	9.4	11	all	11	12	13	18	13	8.6	8.1	7.7	9.4
29	9.4	11	11	11	13	12	18	13	8.6	7.7	7.7	10
30	9.4	11	11	11	-	13	18	13	8.6	7.3	7.7	9.4
31	9.4	-	11	11	-	14	-	12	-	7.7	7.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	288.2	12	8.6	9.30	572
November	296.8	11	9.4	9.89	589
December	339	11	10	10.9	672
Calendar year 1939	4,625.1	27	7.3	12.7	9,180
January	330.3	13	7.7	10.7	655
February	321	13	10	11.1	637
March	343.6	14	9.4	11.1	682
April	466	20	13	15.5	924
May	492	19	12	15.9	976
June	329.2	14	8.6	11.0	653
July	248.3	10	7.3	8.01	492
August	229.2	8.6	6.5	7.39	455
September	268.1	12	7.7	8.94	532
Water year 1939-40	3,951.7	20	6.5	10.8	7,840

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

P. A. lateral near Milner, Idaho

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

Records available.- April 1919 to September 1940.

Extremes.- Maximum discharge during year, 60 second-feet on many days; no flow at times. 1919-40: Maximum discharge, 64 second-feet May 11-13, 1920, July 11, 12, 19-29, 1932; no flow at times.

Remarks.- Records excellent. Flow controlled by operation of pumping plant, which lifts water from Snake River for irrigation on North Side Twin Falls tract.

Cooperation.- Gage-height record and results of 17 discharge measurements furnished by North Side Canal Co.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0					0	30	60	60	60	59
2		0					0	30	60	60	60	59
3		0					0	42	60	60	60	59
4		0					0	52	60	60	60	59
5		0					0	56	60	60	60	59
6		0					0	60	60	60	60	57
7		0					0	60	60	60	60	56
8		0					0	60	60	60	60	56
9		0					0	60	60	60	60	56
10		0					0	60	60	60	59	56
11		0					0	58	60	60	59	56
12		0					0	60	60	60	59	56
13		0					0	60	60	60	59	52
14		0					0	60	60	60	59	46
15		14					0	60	60	60	59	46
16		14					0	60	60	60	59	46
17		0					0	60	60	60	59	46
18		0					0	60	60	60	59	46
19		0					0	60	60	60	59	40
20		0					0	60	60	60	59	31
21		0					0	60	60	60	59	31
22		0					0	60	60	60	59	31
23		0					0	60	60	60	59	31
24		0					0	60	60	60	59	31
25		0					0	60	60	60	59	31
26		0					0	60	60	60	59	31
27		0					0	60	60	60	59	31
28		0					0	60	60	60	59	31
29		0					16	60	60	60	59	8
30		0					31	60	60	60	59	0
31		-					-	60	-	60	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	28	14	0	.9	56
December	0	0	0	0	0
Calendar year 1939	9,024	60	0	24.7	17,910
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	47	31	0	1.6	93
May	1,768	60	30	57.0	3,510
June	1,800	60	60	60.0	3,570
July	1,860	60	60	60.0	3,690
August	1,838	60	59	59.3	3,650
September	1,297	59	0	43.2	2,570
Water year 1939-40	8,638	60	0	23.6	17,140

UNITED STATES DEP 'MENT OF THE INTERIOR
Geolog.cal Survey

Milner low-lift canal near Milner, Idaho

Location.- Water-stage recorder, lat. 42°31', long. 114°01', in sec. 32, T. 10 S., R. 21 E., 600 feet downstream from head of canal and 1½ miles south of Milner.

Records available.- June 1921 to September 1940.

Extremes.- Maximum discharge during year, 173 second-feet July 29 to Aug. 11; no flow at times.

1921-40: Maximum discharge, 174 second-feet July 7, 1936 (gage height, 3.67 feet); no flow at times.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	100	168	166	173	165
2							0	115	168	166	173	165
3							0	120	168	166	173	165
4							0	144	168	166	173	120
5							0	150	168	167	173	120
6							0	151	168	168	173	120
7							0	153	170	168	173	118
8							0	154	163	168	173	100
9							0	160	157	168	173	101
10							0	169	157	168	173	101
11							0	169	157	168	173	101
12							0	168	156	168	172	100
13							0	168	155	168	171	100
14							0	169	161	167	170	100
15							0	169	169	168	168	100
16							0	170	169	168	168	100
17							0	169	169	168	168	100
18							0	169	169	168	168	100
19							0	170	169	168	167	78
20							0	170	169	168	167	51
21							0	170	169	168	168	e51
22							0	170	168	168	166	e51
23							0	170	168	169	162	e51
24							0	170	168	170	162	e51
25							0	156	168	170	165	e51
26							0	169	168	170	165	e51
27							12	168	168	172	165	e51
28							36	168	168	172	165	e51
29							44	168	168	173	165	e15
30							69	168	168	173	165	0
31							-	166	-	173	165	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1939	23,859	166	0	65.4	47,320
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	161	69	0	5.4	319
May	4,950	170	100	160	9,820
June	4,979	170	155	166	9,880
July	5,228	173	166	169	10,370
August	5,235	173	162	169	10,380
September	2,628	165	0	87.6	5,210
Water year 1939-40	23,181	173	0	63.3	45,980

e Stage-discharge relation affected by checks in canal; discharge computed from pumpage records.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Gooding canal at Milner, Idaho

Location.- Water-stage recorder on Milner-Gooding canal in SW¼ sec. 7 and staff gages on North Side Canal Co. diversions in secs. 18 and 19, T. 10 S., R. 21 E., about 3 miles downstream from head gates that are in sec. 28, T. 10 S., R. 21 E., lat. 42°31', long. 114°01'.

Records available.- May 1930 to September 1940.

Extremes.- Maximum daily discharge during year, 2,410 second-feet July 15-21; no flow at times.
1939-40: Maximum daily discharge, that of July 15-21, 1940; no flow at times.

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

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	670	0					0	850	1,900	2,200	2,350	2,190
2	720	0					0	850	1,920	2,200	2,360	2,170
3	720	0					0	950	1,910	2,200	2,360	2,150
4	680	0					0	1,120	1,910	2,200	2,350	2,130
5	690	0					0	1,260	1,920	2,190	2,280	2,130
6	680	0					0	1,480	1,920	2,230	2,240	2,120
7	680	0					0	1,570	1,970	2,240	2,240	2,110
8	680	0					0	1,580	2,060	2,250	2,220	2,080
9	680	0					0	1,650	2,070	2,250	2,210	2,060
10	680	0					0	1,760	2,050	2,240	2,220	2,060
11	680	0					0	1,800	2,050	2,310	2,240	2,060
12	670	0					0	1,820	2,050	2,340	2,230	2,060
13	670	0					0	1,850	2,050	2,350	2,210	1,910
14	640	0					0	1,840	2,060	2,380	2,210	1,840
15	640	0					0	1,850	2,060	2,410	2,200	1,840
16	630	0					0	1,840	2,050	2,410	2,210	1,800
17	240	280					160	1,840	2,050	2,410	2,250	1,770
18	0	560					455	1,850	2,060	2,410	2,260	1,750
19	0	560					480	1,850	2,050	2,410	2,270	1,740
20	0	560					555	1,850	2,040	2,410	2,240	1,690
21	0	560					625	1,850	2,040	2,410	2,250	1,830
22	0	370					625	1,850	2,040	2,390	2,240	1,720
23	0	0					625	1,880	2,120	2,400	2,240	1,660
24	0	0					720	1,900	2,170	2,390	2,230	1,650
25	0	0					810	1,900	2,170	2,400	2,220	1,640
26	0	0					850	1,900	2,190	2,400	2,200	1,570
27	0	0					850	1,910	2,230	2,390	2,200	1,570
28	0	0					850	1,910	2,230	2,380	2,210	1,570
29	0	0					850	1,910	2,220	2,380	2,190	1,060
30	0	0					850	1,920	2,220	2,370	2,190	880
31	0	-					-	1,910	-	2,340	2,180	-

Month	Second-foot-days	Discharge in second-feet			Run-off in acre-feet	Distribution (acre-feet)	
		Maximum	Minimum	Mean		To Milner-Gooding project	To North Side Canal Co. project
October	11,050	720	0	356	21,920	0	21,920
November	2,890	560	0	96.3	5,730	5,730	0
December	0	0	0	0	0	0	0
Calendar year 1939	342,445	2,310	0	938	679,230	389,310	289,920
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	9,305	850	0	310	18,460	18,460	0
May	52,300	1,920	850	1,687	103,700	70,590	[illegible],140
June	61,780	2,230	1,900	2,059	122,500	82,310	40,220
July	72,290	2,410	2,190	2,332	143,400	90,980	52,400
August	69,500	2,360	2,180	2,242	137,900	82,730	55,120
September	54,810	2,190	880	1,827	108,700	57,200	51,510
Water year 1939-40	333,925	2,410	0	912	662,300	408,000	254,300

North Side Twin Falls canal at Milner, Idaho

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

Records available.- May 1909 to September 1940.

Extremes.- Maximum discharge during year, 2,680 second-feet June 23 (gage height, 8.04 feet); no flow at times.
1909-40: Maximum daily discharge, 3,200 second-feet July 5-7, 29-31, 1921, May 15, 1928, June 2, July 23, 1929; no flow at times when head gates were closed.

Remarks.- Records excellent April to September, good October to March. Flow controlled by operation of head gates. Water diverted by this canal and P. A. lateral and part of that diverted by Gooding canal, all at Milner, is used for irrigation of 170,000 acres of land under the North Side Canal Co. system.

Cooperation.- Gage-height record and results of 22 discharge measurements furnished by North Side Canal Co.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	572	543	454	403	394	0	1,960	2,460	2,530	2,370	1,600
2	0	572	537	478	400	388	0	2,070	2,470	2,500	2,450	1,540
3	0	569	531	466	400	391	0	2,210	2,460	2,560	2,550	1,470
4	0	566	531	451	400	397	0	2,130	2,480	2,550	2,500	1,360
5	0	536	534	439	400	385	407	2,090	2,480	2,530	2,470	1,290
6	0	327	534	460	394	379	588	1,880	2,480	2,510	2,460	1,280
7	0	768	531	469	394	257	512	1,870	2,450	2,490	2,460	1,260
8	0	875	531	469	406	265	525	1,970	2,470	2,500	2,460	1,250
9	0	886	531	460	409	285	537	2,070	2,440	2,510	2,450	1,260
10	0	774	572	457	394	290	582	2,120	2,470	2,510	2,520	1,290
11	0	658	598	475	412	340	637	2,180	2,460	2,520	2,580	1,290
12	0	621	624	472	430	296	728	2,230	2,450	2,520	2,540	1,260
13	0	634	569	457	448	263	778	2,250	2,460	2,520	2,530	1,220
14	0	611	490	460	445	260	817	2,230	2,470	2,530	2,530	1,180
15	0	572	484	460	439	310	864	2,210	2,490	2,540	2,510	1,140
16	0	553	481	460	445	394	938	2,260	2,570	2,530	2,500	1,140
17	334	553	481	448	445	412	1,160	2,410	2,590	2,510	2,420	1,110
18	575	553	487	430	436	382	1,530	2,450	2,510	2,460	2,090	1,040
19	601	556	494	427	436	340	1,530	2,450	2,510	2,450	2,070	1,030
20	601	572	534	b427	439	376	1,420	2,480	2,560	2,440	2,000	502
21	604	556	563	b427	442	424	1,530	2,490	2,600	2,420	1,960	117
22	604	540	559	b427	442	406	1,620	2,480	2,590	2,410	1,850	0
23	595	534	563	b427	436	367	1,600	2,480	2,620	2,410	1,730	0
24	585	522	553	b420	436	370	1,710	2,450	2,610	2,410	1,730	0
25	585	509	550	409	436	370	1,700	2,390	2,610	2,450	1,740	0
26	588	509	518	412	427	370	1,640	2,390	2,600	2,460	1,720	0
27	582	528	484	403	424	385	1,730	2,350	2,600	2,460	1,660	0
28	575	550	454	397	421	415	1,810	2,400	2,600	2,430	1,670	0
29	572	563	448	400	409	412	1,880	2,480	2,570	2,390	1,720	0
30	572	556	436	*403	-	124	1,940	2,470	2,580	2,370	1,690	0
31	572	-	430	403	-	0	-	2,470	-	2,370	1,660	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,545	604	0	276	16,950
November	17,695	886	327	590	35,100
December	16,175	624	430	522	32,080
Calendar year 1939	460,146	2,620	0	1,261	912,700
January	13,647	478	397	440	27,070
February	12,248	448	394	422	24,290
March	10,447	424	0	337	20,720
April	30,713	1,940	0	1,024	60,920
May	70,370	2,490	1,870	2,270	139,600
June	75,710	2,620	2,440	2,524	150,200
July	76,790	2,560	2,370	2,477	152,300
August	67,590	2,580	1,660	2,180	134,100
September	24,629	1,600	0	821	48,850
Water year 1939-40	424,559	2,620	0	1,160	842,200

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

South Side Twin Falls canal at Milner, Idaho

Location.- Water-stage recorder, lat. 42°31', long. 114°01', in sec. 29, T. 10 S., R. 21 E., 700 feet downstream from head gates at Milner.

Records available.- May 1909 to September 1940.

Extremes.- Maximum discharge during year, 3,640 second-feet July 21 (gage height, 10.42 feet); minimum, 35 second-feet (estimated) Oct. 29 to Nov. 2.
1909-40: Maximum daily discharge, 4,600 second-feet Aug. 12, 1918, computed on basis of stage-discharge relation for canal plus estimates by hydrographer of water wasted through spillway; no flow Sept. 20, 1920.

Remarks.- Records excellent except those for periods of ice effect, which are good, and those of no gage-height record, which are fair. Flow controlled by operation of head gates. South Side Twin Falls canal diverts water from Snake River at Milner Dam for irrigation of 202,000 acres of land in Twin Falls County.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,790	a35	656	601	535	520	595	2,150	3,390	3,530	3,590	3,380
2	1,790	336	640	601	538	520	607	2,190	3,400	3,550	3,590	3,380
3	1,650	643	634	601	529	520	598	2,320	3,390	3,540	3,570	3,340
4	1,430	688	634	601	518	520	598	2,450	3,380	3,540	3,560	3,240
5	1,210	809	631	601	518	526	604	2,500	3,340	3,540	3,550	3,080
6	1,150	865	631	601	520	520	601	2,590	3,250	3,520	3,560	2,840
7	1,030	768	628	601	523	523	601	2,780	3,240	3,520	3,570	2,720
8	968	700	610	601	520	523	598	2,900	3,230	3,550	3,580	2,720
9	869	662	601	595	526	520	640	3,030	3,220	3,550	3,590	2,680
10	835	595	604	595	529	526	665	3,180	3,170	3,540	3,590	2,590
11	755	583	610	589	523	523	716	3,330	3,180	3,600	3,590	2,550
12	713	583	601	b585	518	523	825	3,380	3,200	3,570	3,590	2,460
13	707	586	610	b580	518	529	947	3,320	3,270	3,570	3,590	2,360
14	707	580	607	b580	526	529	1,080	3,320	3,340	3,560	3,600	2,250
15	710	580	604	b580	526	526	1,150	3,320	3,450	3,570	3,610	2,210
16	710	580	604	b550	520	529	1,170	3,320	3,390	3,570	3,610	2,220
17	716	583	604	529	523	529	1,250	3,320	3,340	3,570	3,610	2,090
18	707	583	*595	b529	526	529	1,310	3,320	3,380	3,590	3,630	1,960
19	707	583	592	b529	523	529	1,330	3,320	3,380	3,620	3,630	1,800
20	668	580	604	b530	518	532	1,420	3,360	3,380	3,620	3,630	1,660
21	643	580	601	b530	518	529	1,400	3,360	3,410	3,630	3,610	1,330
22	646	634	598	b530	520	529	1,480	3,360	3,420	3,630	3,600	1,250
23	646	656	598	b530	520	529	1,680	3,360	3,470	3,600	3,600	1,240
24	643	656	601	b530	520	529	1,830	3,360	3,500	3,610	3,590	1,240
25	646	656	598	b532	518	529	1,950	3,370	3,490	3,600	3,560	1,250
26	646	649	601	b532	520	529	1,990	3,380	3,550	3,600	3,530	1,210
27	643	649	601	b532	523	447	1,560	3,380	3,590	3,610	3,530	1,200
28	646	652	592	532	529	270	2,000	3,380	3,570	3,610	3,530	1,170
29	340	652	598	532	529	379	1,990	3,370	3,540	3,610	3,540	1,130
30	a35	656	604	*535	-	586	2,040	3,370	3,520	3,600	3,480	1,100
31	a35	-	607	535	-	586	-	3,390	-	3,600	3,440	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	25,391	1,790	35	819	50,360
November	18,362	865	35	612	36,420
December	18,899	656	592	610	37,490
Calendar year 1939	674,638	3,620	25	1,848	1,338,000
January	17,429	601	529	562	34,570
February	15,174	538	518	523	30,100
March	15,938	586	270	514	31,610
April	35,225	2,040	595	1,174	69,870
May	96,480	3,390	2,150	3,112	191,400
June	101,380	3,590	3,170	3,379	201,100
July	110,920	3,630	3,520	3,578	220,000
August	110,850	3,630	3,440	3,576	219,900
September	63,650	3,380	1,100	2,122	126,200
Water year 1939-40	629,698	3,630	35	1,720	1,249,000

*Winter discharge measurement made on this day.
a No gage-height record, headgates closed; discharge estimated by observer.
b Stage-discharge relation affected by ice.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Rock Creek near Twin Falls, Idaho

Location.- Water-stage recorder, lat. 42°36', long. 114°32', in SW¼ sec. 36, T. 9 S., R. 16 E., at highway bridge, 3 miles upstream from mouth and 4 miles northwest of Twin Falls.

Records available.- March 1922 to September 1940.

Average discharge.- 18 years, 211 second-feet.

Extremes.- Maximum discharge during year, 460 second-feet Aug. 30 (gage height, 3.16 feet); minimum, 95 second-feet Mar. 29, 30 (gage height, 1.74 feet).
1922-40: Maximum discharge, about 984 second-feet Sept. 21, 1927 (gage height, 4.5 feet, datum then in use, from floodmarks); minimum, 94 second-feet Mar. 22, Apr. 1-3, 11, 12, 1935.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Practically all normal summer flow diverted several miles above station for irrigation. Waste water from South Side Twin Falls low-line canal, which crosses Rock Creek 12 miles upstream from station, causes abrupt fluctuations in stage at times. Irrigation waste water and return flow from project lands enter above gage.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	268	183	200	183	148	121	120	256	162	183	221	248
2	276	166	200	185	138	122	121	262	179	181	216	256
3	273	162	198	190	134	120	120	218	187	183	214	262
4	262	160	198	196	132	117	118	168	194	185	216	268
5	248	185	200	183	130	a116	118	162	202	187	212	270
6	251	212	202	170	130	h114	114	158	200	183	221	273
7	251	207	202	158	132	a113	115	155	205	187	218	270
8	238	181	200	168	131	a113	117	150	212	185	214	276
9	233	179	198	175	131	112	117	145	214	179	214	285
10	226	175	196	170	130	112	115	155	205	177	212	285
11	218	177	187	162	130	113	121	142	198	179	216	288
12	214	175	183	162	127	110	120	143	196	181	221	292
13	214	171	185	148	125	110	121	143	194	179	218	285
14	218	168	187	140	125	109	127	137	192	194	223	279
15	221	168	187	138	125	109	136	140	196	196	223	279
16	218	173	187	143	125	108	155	137	194	194	221	276
17	216	177	a186	166	125	109	140	140	187	198	218	270
18	212	179	a184	150	125	108	146	142	181	200	223	270
19	207	177	183	124	125	107	153	140	179	200	226	298
20	205	175	185	131	125	107	146	150	177	205	226	270
21	200	173	185	143	125	107	145	150	179	209	226	265
22	200	179	179	a156	124	108	150	140	170	214	228	243
23	205	221	183	168	124	109	158	142	171	212	233	246
24	209	223	187	a160	122	112	158	143	171	212	238	243
25	205	223	170	153	122	112	187	158	179	212	246	240
26	202	223	177	221	122	113	194	153	177	218	251	240
27	200	216	181	228	122	113	181	153	173	226	256	236
28	205	196	179	181	122	99	248	153	173	233	256	236
29	200	202	183	168	122	95	265	157	173	233	256	240
30	196	200	185	164	-	95	259	158	177	228	298	240
31	194	-	179	162	-	112	-	157	-	228	251	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,885	276	194	222	13,660
November	5,606	223	160	187	11,120
December	5,836	202	170	188	11,580
Calendar year 1939	73,607	358	135	202	146,000
January	5,146	228	124	166	10,210
February	3,698	148	122	128	7,330
March	3,425	122	95	110	6,790
April	4,485	265	114	150	8,900
May	4,907	262	137	158	9,730
June	5,597	214	162	187	11,100
July	6,181	233	177	199	12,260
August	7,112	298	212	229	14,110
September	7,929	298	236	264	15,730
Water year 1939-40	66,807	298	95	183	132,500

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Salmon Falls Creek near San Jacinto, Nev.

Location.- Water-stage recorder, lat. 41°57', long. 114°42', in sec. 23, T. 47 N., R. 64 E., in canyon 200 yards downstream from highway bridge, 250 yards downstream from Shoshone Creek, and 5 miles north of San Jacinto.

Records available.- September 1909 to September 1916, October 1918 to September 1940.

Average discharge.- 26 years (1910-16, 1919-20, 1921-40), 119 second-feet.

Extremes.- Maximum discharge during year, 338 second-feet Apr. 27 (gage height, 4.27 feet); minimum, 5.3 second-feet Aug. 17 (gage height, 2.16 feet).
1909-16, 1918-40: Maximum discharge, 1,760 second-feet Mar. 18, 1939 (gage height, 9.23 feet); minimum, that of Aug. 17, 1940.

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

Cooperation.- Gage-height record furnished by Salmon River Canal Co.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

2.1	3.5	2.9	59.5	3.7	202
2.3	11.0	3.1	87	3.9	248
2.5	23	3.3	120	4.1	296
2.7	39	3.5	159	4.3	346

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a25	33	50			93	174	284	172	27	7.0	9.6
2	36	34	50			113	189	258	174	28	7.0	9.6
3	37	36	48			106	189	227	172	24	7.0	11
4	38	36	48	a65		101	176	209	193	21	7.0	11
5	37	36	48			95	172	207	211	20	7.0	11
6	36	41	48			93	174	225	180	22	7.0	11
7	37	45	48	57		89	165	236	170	22	7.0	11
8	37	45	47	63		90	159	230	145	20	7.0	11
9	36	46	46	58		95	163	216	128	18	6.5	11
10	34	45	48	58		97	163	204	108	16	7.0	12
11	31	46	46	60		97	174	207	87	16	7.0	11
12	30	44	47	54		92	176	218	75	13	6.5	11
13	29	45	47	44		84	176	232	67	11	7.0	11
14	29	47	47	45		83	176	253	61	10	7.0	11
15	29	47	46	46	a60	86	184	274	53	8.6	7.0	11
16	28	47	47	50		86	214	296	48	8.8	6.5	11
17	27	46	47	48		90	236	298	44	8.3	7.0	11
18	26	46	47	53		92	234	304	41	8.3	7.4	11
19	25	46	46			95	225	296	36	8.3	8.3	14
20	24	45	47			103	220	272	33	7.8	8.3	15
21	24	45	51			108	227	253	29	8.3	9.2	19
22	25	45	44			117	241	241	26	7.6	8.8	21
23	26	46	41			126	256	232	26	7.4	9.2	23
24	26	46	51	a55		135	265	218	25	7.8	9.6	22
25	28	46	31			149	291	214	25	7.8	9.6	24
26	30	47				161	311	216	24	8.3	12	44
27	31	51				172	334	214	22	8.3	11	31
28	33	52	a50			176	324	216	23	7.8	11	28
29	35	52			78	182	306	220	24	7.8	10	27
30	34	51			-	176	294	209	26	7.4	11	26
31	34	-			-	170	-	195	-	7.4	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	957	38	24	30.9	1,900
November	1,339	52	33	44.6	2,660
December	1,470	-	31	47.4	2,920
Calendar year 1939	42,234	1,400	11	116	83,800
January	1,741	-	-	56.2	3,450
February	1,758	-	-	60.6	3,490
March	3,554	182	83	115	7,050
April	6,590	334	159	220	13,070
May	7,374	304	195	238	14,630
June	2,448	211	22	81.6	4,860
July	404.4	28	7.4	13.0	802
August	252.9	12	6.5	8.16	502
September	490.2	44	9.6	16.3	972
Water year 1939-40	28,378.5	334	6.5	77.5	56,310

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

Salmon River Canal Co. Reservoir near Rogerson, Idaho

Location.- Staff gage at dam on Salmon Falls Creek, lat. 42°13', long. 114°44', in sec. 17, T. 14 S., R. 15 E., 10 miles west of Rogerson. Datum of gage is 4,990.0 feet above mean sea level (surveys of Salmon River Canal Co.).

Records available.- January 1922 to September 1940.

Extremes.- Maximum contents observed during year, 36,420 acre-feet May 21 (gage height, 23.55 feet); minimum observed, 375 acre-feet Sept. 16-30 (gage height, 0.3 foot).
1922-40: Maximum contents observed, 123,700 acre-feet May 30, 31, 1922 (gage height, 61.1 feet); minimum, 125 acre-feet Sept. 21 to Oct. 5, 1934 (gage height, 0.1 foot).

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

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

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,850	4,525	5,200	7,285	9,822	12,350	18,000	28,640	29,740	15,900	3,175	500
2	3,850	4,525	5,335	7,358	9,968	12,420	18,300	29,150	29,240	15,150	2,905	500
3	3,850	4,592	5,402	7,502	10,040	12,500	18,620	29,580	29,060	14,400	2,635	500
4	3,850	4,592	5,470	7,792	10,110	12,780	18,940	30,000	29,320	14,100	2,375	500
5	3,850	4,592	5,538	7,938	10,260	12,930	19,260	30,260	29,580	14,100	2,188	500
6	3,850	4,660	5,605	8,010	10,330	13,080	19,580	30,510	29,830	14,100	2,000	500
7	3,965	4,660	5,672	8,010	10,480	13,220	19,900	30,850	30,080	14,100	1,875	500
8	3,965	4,660	5,740	8,082	10,550	13,360	20,220	31,190	30,340	14,020	1,750	500
9	4,120	4,795	5,808	8,155	10,620	13,510	20,540	31,530	30,600	14,020	1,625	500
10	4,120	4,795	5,875	8,228	10,760	13,660	20,700	31,880	30,850	13,220	1,500	500
11	4,120	4,862	5,942	8,300	10,840	13,950	21,020	32,260	30,760	12,350	1,375	500
12	4,255	4,862	6,010	8,445	10,910	14,100	21,180	32,620	30,000	11,340	1,250	500
13	4,255	4,930	6,010	8,518	10,980	14,180	21,020	33,000	29,320	10,480	1,125	500
14	4,255	4,930	6,078	8,590	11,060	14,250	21,020	33,360	28,300	9,460	1,125	500
15	4,255	4,998	6,145	8,590	11,130	14,400	21,340	33,740	27,280	9,098	1,125	500
16	4,255	5,065	6,212	8,662	11,200	14,550	21,670	34,100	26,260	9,098	1,000	375
17	4,255	5,200	6,280	8,735	11,270	14,700	22,100	34,570	25,580	9,098	1,000	375
18	4,255	5,200	6,348	8,735	11,340	14,780	22,520	35,030	25,580	9,025	875	375
19	4,255	5,200	6,415	8,735	11,420	15,000	22,940	35,490	25,580	8,952	875	375
20	4,322	4,795	6,482	8,808	11,490	15,150	23,370	35,960	25,580	8,880	750	375
21	4,322	4,525	6,550	8,880	11,560	15,300	23,710	36,420	25,580	8,880	750	375
22	4,322	4,592	6,550	8,952	11,640	15,450	24,050	35,960	24,560	8,010	625	375
23	4,322	4,660	6,622	9,025	11,710	15,600	24,480	35,580	23,370	7,140	625	375
24	4,322	4,660	6,622	9,098	11,780	15,750	24,900	35,220	22,180	6,415	625	375
25	4,322	4,795	6,695	9,170	11,850	16,050	25,320	34,480	21,020	5,740	625	375
25	4,322	4,795	6,695	9,242	12,000	16,350	25,920	33,830	19,980	5,200	625	375
27	4,390	4,862	6,768	9,315	12,070	16,500	26,520	33,000	18,940	4,660	625	375
28	4,390	4,930	6,840	9,460	12,220	16,800	27,020	32,260	18,150	4,255	500	375
29	4,390	5,065	6,918	9,532	12,280	17,100	27,620	31,530	17,400	3,985	500	375
30	4,458	5,132	6,995	9,678	-	17,400	28,220	30,850	16,650	3,715	500	375
31	4,458	-	7,140	9,750	-	17,700	-	30,260	-	3,445	500	-

Monthly gage height and contents, water year October 1939 to September 1940

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	3.0	3,850	-
Oct. 31	3.45	4,458	+608
Nov. 30	3.95	5,132	+674
Dec. 31	5.4	7,140	+2,008
Calendar year 1939	-	-	-6,010
Jan. 31	7.2	9,750	+2,610
Feb. 29	8.95	12,280	+2,530
Mar. 31	12.6	17,700	+5,420
Apr. 30	18.95	28,220	+10,520
May 31	20.15	30,260	+2,040
June 30	11.9	16,650	-13,610
July 31	2.7	3,445	-13,205
Aug. 31	.4	500	-2,945
Sept.30	.3	375	-125
Water year 1939-40	-	-	-3,475

Salmon River Canal Co. canal near Rogerson, Idaho

Location.- Water-stage recorder, lat. 42°15', long. 114°45', in sec. 7, T. 14 S., R. 15 E., half a mile downstream from Salmon River Canal Co. Reservoir and 7 miles west of Rogerson.

Records available.- April 1937 to September 1940.

Extremes.- Maximum discharge during year, 550 second-feet June 22 (gage height, 7.11 feet); no flow during long periods.
1937-40: Maximum discharge, 577 second-feet July 17, 1938 (gage height, 7.34 feet); no flow during long periods in each year.

Remarks.- Records good. Canal diverts from Salmon River Canal Co. Reservoir for irrigation of lands in Salmon River Canal Co. project.

Cooperation.- Gage-height record furnished by Salmon River Canal Co.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0					0	0	410	350	96	
2		0					0	0	337	340	88	
3		0					0	0	0	259	76	
4		0					0	0	0	0	71	
5		0					0	0	0	0	63	
6		0					0	0	0	0	58	
7		0					0	0	0	0	52	
8		0					0	0	0	0	48	
9		0					0	0	0	283	23	
10		0					0	0	0	410	0	
11		0					0	0	346	430	0	
12		0					161	0	430	430	0	
13		0					200	0	484	440	0	
14		0					0	0	517	307	0	
15		0					0	0	528	0	0	
16		0					0	0	443	0	0	
17		0					0	0	40	0	0	
18		0					0	0	0	0	0	
19		167					0	0	0	0	0	
20		184					0	0	0	0	0	
21		50					0	271	354	317	0	
22		0					0	350	528	370	0	
23		0					0	400	539	321	0	
24		0					0	451	528	276	0	
25		0					0	495	495	236	0	
26		0					0	528	451	204	0	
27		0					0	539	430	177	0	
28		0					0	528	400	160	0	
29		0					0	495	370	142	0	
30		0					0	473	340	124	0	
31		-					-	440	-	108	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	401	184	0	13.4	795
December	0	0	0	0	0
Calendar year 1939	32,227	511	0	88.3	63,920
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	361	200	0	12.0	716
May	4,970	539	0	160	9,860
June	7,970	539	0	266	15,810
July	5,684	440	0	183	11,270
August	577	96	0	18.6	1,140
September	0	0	0	0	0
Water year 1939-40	19,963	539	0	54.5	39,590

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Big Wood River at Hailey, Idaho

Location.- Water-stage recorder, lat. 43°31', long. 114°20', in SW¼ sec. 9, T. 2 N., R. 18 E., at steel highway bridge, a quarter of a mile southwest of Hailey.

Drainage area.- 640 square miles.

Records available.- June 1915 to September 1940.

Average discharge.- 25 years, 279 second-feet.

Extremes.- Maximum discharge during year, 1,960 second-feet May 13 (gage height, 5.18 feet); minimum, 1 second-foot Oct. 23-31, Nov. 9 to Jan. 9, Jan. 11-16, 19, 21, Jan. 26 to Mar. 14.
1915-40: Maximum discharge, 4,480 second-feet June 7, 1938; maximum gage height, 8.66 feet June 12, 1921; practically no flow Sept. 15-23, Nov. 20, 22, 27, 1931, Oct. 25, 1937.

Remarks.- Records good except those below 10 second-feet, which are fair. Water diverted around station by Hailey power plant and returned to river through Big Wood Slough. Total flow of river at Hailey (combined flow of Big Wood River and Big Wood Slough) is given in table on following page. Diversions above station for irrigation.

Cooperation.- Gage-height record, April to September, and two discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Mar. 23)

0.6	1.0	2.0	141	4.0	1,040
.8	3.0	2.4	241	4.4	1,320
1.0	8.0	2.8	383	4.8	1,640
1.2	16.5	3.2	565	5.2	1,960
1.6	65.5	3.6	785		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	a2	1	1	1	1	456	659	1,400	438	10	7
2	2	a2	1	1	1	1	391	686	1,360	479	10	8
3	2	a2	1	1	1	1	363	910	1,280	430	10	9
4	2	a2	1	1	1	1	339	1,010	1,180	249	9	10
5	2	h2	1	1	1	1	359	910	1,110	148	9	9
6	2	a2	1	1	1	1	357	815	1,030	139	9	7
7	3	a2	1	1	1	1	343	815	910	122	9	19
8	3	a2	1	1	1	1	339	845	845	104	8	36
9	3	a1	1	1	1	1	359	942	785	76	8	7
10	2	a1	1	2	1	1	347	1,180	785	74	8	6
11	2	h1	1	1	1	1	355	1,440	815	71	8	5
12	2	a1	1	1	1	1	400	1,840	910	67	8	5
13	2	1	1	1	1	1	535	1,880	1,080	76	8	5
14	2	1	1	1	1	1	720	1,760	1,110	71	8	5
15	2	1	1	1	1	2	785	1,720	1,040	66	8	5
16	2	1	1	1	1	2	659	1,600	1,010	66	8	5
17	2	1	1	2	1	2	595	1,520	975	61	8	4
18	a2	1	1	2	1	2	659	1,440	975	52	8	4
19	a2	1	1	1	1	2	815	1,440	975	25	8	5
20	a2	1	1	2	1	2	942	1,440	942	14	8	5
21	a2	1	1	1	1	2	942	1,400	878	14	9	5
22	a2	1	1	2	1	3	878	1,440	785	14	8	h6
23	a1	1	1	2	1	7	878	1,480	703	13	7	h6
24	a1	1	1	2	1	37	845	1,560	670	13	7	h5
25	a1	1	1	2	1	102	845	1,600	626	12	7	h5
26	a1	1	1	1	1	238	878	1,520	590	12	7	h5
27	a1	1	1	1	1	263	910	1,520	565	12	8	h6
28	h1	1	1	1	1	132	815	1,400	520	12	8	5
29	a1	1	1	1	1	265	755	1,250	484	11	8	5
30	a1	1	1	1	-	328	708	1,250	461	10	8	5
31	a1	-	1	1	-	484	-	1,320	-	11	8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	56	3	1	1.8	111
November	38	2	1	1.3	75
December	31	1	1	1.0	61
Calendar year 1939	41,436	760	1	114	82,190
January	39	2	1	1.3	77
February	29	1	1	1.0	58
March	1,937	484	1	62.5	3,840
April	18,566	942	339	619	36,830
May	40,622	1,880	659	1,310	80,570
June	26,779	1,400	461	893	53,120
July	2,962	479	10	95.5	5,880
August	255	10	7	8.2	506
September	219	36	4	7.3	434
Water year 1939-40	91,533	1,880	1	250	181,600

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

Combined discharge, in second-feet, of Big Wood River and Big Wood Slough at Hailey, Idaho, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	150	125	111	108	127	457	660	1,410	441	158	121
2	119	150	123	111	111	127	392	687	1,370	484	156	120
3	124	152	123	111	117	123	364	911	1,290	441	151	159
4	127	150	119	106	117	117	340	1,010	1,190	405	153	170
5	127	145	118	106	113	123	360	912	1,120	395	146	221
6	142	135	122	100	117	115	352	847	1,020	386	145	173
7	158	127	117	92	114	123	344	817	924	369	153	170
8	154	126	121	103	110	128	340	846	858	343	155	248
9	154	125	126	111	114	126	360	944	797	307	145	216
10	150	117	134	115	117	128	348	1,180	799	289	138	199
11	147	121	132	105	113	125	356	1,440	836	294	148	171
12	147	126	126	100	104	114	401	1,840	932	280	147	177
13	147	123	125	97	99	110	536	1,880	1,100	278	144	186
14	150	121	128	92	114	119	721	1,760	1,130	272	140	186
15	147	121	130	89	114	126	786	1,720	1,060	267	138	186
16	142	121	134	93	103	129	660	1,600	1,030	270	134	183
17	136	121	137	104	117	131	596	1,520	993	263	128	170
18	135	119	127	107	119	133	660	1,440	994	254	140	167
19	138	123	115	90	114	135	816	1,440	997	212	134	183
20	139	126	117	104	103	142	943	1,440	963	227	134	186
21	154	126	114	93	90	150	943	1,400	897	221	156	189
22	152	126	114	97	104	164	879	1,440	801	208	144	202
23	150	128	111	107	105	191	879	1,480	716	189	144	187
24	148	127	113	111	105	231	847	1,560	675	179	141	177
25	147	126	97	112	110	305	847	1,600	629	168	133	177
26	145	127	89	111	114	398	880	1,520	593	174	144	180
27	144	127	94	111	123	453	912	1,520	568	193	140	175
28	142	126	97	111	119	382	817	1,400	523	188	130	186
29	147	121	106	111	131	325	757	1,250	487	164	128	236
30	152	126	110	111	-	329	710	1,250	464	161	125	228
31	152	-	111	111	-	485	-	1,320	-	167	130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,421	158	105	143	8,770
November	3,859	152	117	129	7,650
December	3,655	137	89	118	7,250
Calendar year 1939	96,768	941	89	265	191,900
January	3,233	115	89	104	6,410
February	3,239	131	90	112	6,420
March	5,914	485	110	191	11,730
April	18,603	943	340	620	36,900
May	40,634	1,880	660	1,311	80,600
June	27,166	1,410	464	906	53,880
July	8,489	484	161	274	16,840
August	4,402	158	125	142	8,730
September	5,529	248	120	184	10,970
Water year 1939-40	129,144	1,880	89	353	256,200

9-232 February 1936

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Big Wood River near Bellevue, Idaho

Location.- Water-stage recorder, lat. 43°19', long. 114°21', in sec. 20, T. 1 S., R. 18 E., 1¾ miles upstream from flow line of Magic Reservoir, 3 miles upstream from Camas Creek, and 10 miles southwest of Bellevue.

Drainage area.- 823 square miles.

Records available.- July 1911 to September 1940 (except winters prior to 1940).

Extremes.- Maximum discharge during year, 1,450 second-feet May 13 (gage height, 3.33 feet); minimum, 22 second-feet Feb. 19 (gage height, 1.15 feet).
1911-40: Maximum discharge recorded, 3,660 second-feet June 16, 1921 (gags height, 6.07 feet), from rating curve extended above 2,800 second-feet; minimum recorded, 7 second-feet Apr. 14, 1932 (gage height, 1.10 feet).

Remarks.- Records good. Many diversions above station for irrigation.

Cooperation.- Gage-height record and seven discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	45	33	31	29	47	239	550	696	113	65	51
2	49	43	33	35	31	47	221	534	696	110	62	54
3	49	43	31	39	31	43	202	643	687	107	60	54
4	49	43	31	35	31	41	181	750	617	99	58	54
5	47	41	31	33	31	39	198	750	583	96	54	54
6	47	41	31	31	31	39	189	687	501	88	54	54
7	49	41	31	29	29	39	177	651	412	81	54	54
8	49	41	31	29	29	51	170	651	365	79	51	54
9	49	41	31	29	29	58	177	660	310	79	51	54
10	49	39	31	29	31	54	177	768	255	76	51	54
11	49	39	31	29	31	47	174	957	211	74	49	51
12	49	39	29	29	29	43	181	1,250	244	74	49	51
13	51	39	27	31	29	43	216	1,380	372	71	49	51
14	54	39	27	35	29	43	340	1,250	456	71	49	51
15	54	39	27	35	27	47	517	1,190	441	76	47	54
16	54	37	31	31	29	54	525	1,080	412	81	45	54
17	54	37	31	29	27	65	463	930	399	79	45	51
18	54	35	29	29	27	69	471	831	372	79	47	51
19	54	35	27	35	27	71	558	777	372	76	47	55
20	54	35	27	29	29	76	669	777	372	71	49	52
21	51	33	27	31	33	81	714	759	359	69	51	67
22	49	33	25	27	27	76	687	705	316	69	51	62
23	49	33	27	25	27	74	678	723	266	69	49	58
24	49	31	27	27	27	67	696	768	234	69	49	56
25	49	31	25	27	27	65	696	831	211	65	49	54
26	47	31	25	29	29	67	723	831	154	65	51	54
27	47	33	25	29	39	115	759	840	121	69	51	54
28	47	33	27	29	54	131	705	786	128	69	51	54
29	45	33	27	29	54	131	651	660	124	69	51	56
30	45	33	29	27	-	134	600	608	118	67	51	58
31	45	-	29	27	-	177	-	634	-	65	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,530	54	43	49.4	3,030
November	1,116	45	31	37.2	2,210
December	893	33	25	28.8	1,770
Calendar year	-	-	-	-	-
January	939	39	25	30.3	1,860
February	903	54	27	31.1	1,790
March	2,134	177	39	68.8	4,230
April	12,954	759	170	432	25,690
May	25,211	1,380	534	813	50,010
June	10,804	696	118	360	21,430
July	2,425	113	65	78.2	4,810
August	1,591	65	45	51.3	3,160
September	1,642	67	51	54.7	3,260
Water year 1939-40	62,142	1,380	25	170	123,200

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Magic Reservoir near Richfield, Idaho

Location.- Staff gage at dam on Big Wood River, lat. 43°15', long. 114°22', in NE¼ SE¼ sec. 18, T. 2 S., R. 18 E., 18 miles northwest of Richfield. Datum of gage is referred to datum of Idaho Irrigation Co., which is reported to be about 137 feet below mean sea level.

Drainage area.- 1,500 square miles.

Records available.- February to April 1909 (gage heights only), April 1909 to September 1940.

Extremes.- Maximum contents during year, 191,500 acre-feet May 27-30 (gage height, 4,935.0 feet); minimum, 51,360 acre-feet Oct. 1 (gage height, 4,882.0 feet).
1909-40: Maximum contents, 192,300 acre-feet July 12, 13, 1938, Apr. 19-27, 1939 (gage height, 4,935.20 feet); no usable contents for several days in 1909, 1919, 1920, 1924, 1928, 1935.

Remarks.- Reservoir is formed by earth and rock-fill dam, completed in 1909 and raised 5 feet in 1917. Capacity, 191,500 acre-feet, between gage heights 4,821.4 feet (2.9 feet above bottom of outlet pipe) and 4,935.0 feet (top of flash boards, 5 feet above crest of spillway). Dead storage unknown. Water is used for irrigation of lands in Carey Act project of Big Wood Canal Co. Figures given herein represent usable contents. Gage read twice daily; contents computed from morning reading.

Cooperation.- Gage-height record and capacity table furnished by watermaster for Big Wood and Little Wood Rivers.

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51,360	54,910	54,530	57,390	59,710	64,010	105,300	167,600	191,100	170,100	133,900	102,500
2	51,540	55,100	54,530	57,580	59,900	64,410	110,100	169,000	190,700	169,000	132,300	101,600
3	51,730	55,290	54,720	57,580	60,100	64,600	113,900	170,400	190,700	169,000	131,600	100,600
4	51,910	55,480	54,720	57,780	60,290	65,000	116,600	171,500	190,700	169,000	130,500	99,620
5	51,910	55,480	54,910	57,580	60,290	65,200	119,000	173,000	190,300	169,400	129,700	98,890
6	52,100	55,670	55,100	57,580	60,480	65,400	121,100	174,800	190,300	169,400	128,500	98,170
7	52,280	55,670	55,100	57,580	60,480	65,600	122,700	176,300	190,000	167,600	127,400	97,460
8	52,470	55,860	55,290	57,580	60,680	65,790	124,700	177,400	190,000	166,200	126,600	96,980
9	52,470	55,660	55,290	57,580	60,680	66,190	126,000	178,100	189,200	164,800	125,500	96,500
10	52,660	55,860	55,480	57,780	60,870	66,590	127,700	179,200	188,400	163,400	124,400	95,800
11	52,840	56,050	55,480	57,780	61,070	66,790	128,800	180,000	187,600	162,000	123,300	95,090
12	52,840	56,050	55,670	57,970	61,070	66,990	130,200	181,100	186,800	160,600	122,500	94,380
13	53,030	56,240	55,670	57,970	61,070	67,190	131,400	183,000	186,100	159,300	121,400	93,680
14	53,030	56,240	55,860	57,970	61,260	67,380	132,800	184,500	185,300	157,600	120,300	92,750
15	53,220	56,430	55,860	58,160	61,460	67,780	134,200	186,100	185,300	156,300	119,200	92,060
16	53,400	56,430	55,860	58,160	61,660	67,980	136,500	187,200	184,900	154,600	118,200	91,140
17	53,590	56,620	56,050	58,160	61,850	68,380	138,900	188,400	184,500	153,000	117,100	90,450
18	53,590	56,620	56,240	58,350	61,850	68,980	140,700	189,200	184,100	151,300	116,300	89,770
19	53,780	56,820	56,240	58,350	62,050	69,590	142,500	189,500	183,000	149,700	115,300	89,090
20	53,780	56,240	56,430	58,350	62,050	70,390	144,400	189,900	182,600	148,800	114,200	88,410
21	53,970	55,480	56,430	58,550	62,050	71,200	146,600	190,300	181,900	147,500	113,400	87,730
22	53,970	54,720	56,620	58,740	62,240	72,210	148,800	190,700	181,100	145,900	112,400	87,060
23	54,160	53,780	56,620	58,740	62,440	73,230	150,700	190,300	180,000	144,700	111,400	86,620
24	53,340	53,780	56,820	59,130	62,440	74,250	153,000	190,700	179,200	143,500	110,300	85,950
25	54,340	53,780	56,820	59,130	62,640	75,700	154,600	190,700	178,500	141,900	109,300	85,510
26	54,530	53,970	57,010	59,320	62,830	77,360	156,900	191,100	177,000	140,700	108,300	84,850
27	54,530	54,160	57,010	59,320	63,030	81,160	159,300	191,500	175,500	139,500	107,300	84,410
28	54,720	54,160	57,010	59,510	63,420	86,620	161,700	191,500	174,100	138,300	106,300	83,750
29	54,720	54,340	57,010	59,510	63,820	92,520	163,400	191,500	172,600	137,100	105,300	83,100
30	54,720	54,340	57,200	59,510	-	96,980	165,500	191,500	171,500	136,000	104,300	82,450
31	54,910	-	57,390	59,710	-	100,800	-	191,100	-	135,100	103,500	-

Monthly gage height and contents, water year October 1939 to September 1940

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	4,882.0	51,360	-
Oct. 31	4,883.9	54,910	+3,550
Nov. 30	4,883.6	54,340	-570
Dec. 31	4,885.2	57,390	+3,050
Calendar year 1939	-	-	-107,410
Jan. 31	4,886.4	59,710	+2,320
Feb. 29	4,888.5	63,820	+4,110
Mar. 31	4,905.6	100,800	+36,980
Apr. 30	4,928.0	165,500	+64,700
May 31	4,934.9	191,100	+25,600
June 30	4,929.7	171,500	-19,600
July 31	4,918.5	135,100	-36,400
Aug. 31	4,906.7	103,500	-31,600
Sept. 30	4,897.6	82,450	-21,050
Water year 1939-40	-	-	+31,090

Big Wood River below Magic Dam, near Richfield, Idaho

Location.- Water-stage recorder, lat. 43°14', long. 114°22', in sec. 18, T. 2 S., R. 18 E., half a mile downstream from Magic Dam and 18 miles northwest of Richfield.

Records available.- April 1911 to September 1940.

Average discharge.- 28 years (1912-40), 382 second-feet.

Extremes.- Maximum discharge during year, 914 second-feet May 24; maximum gage height, 4.36 feet July 6; minimum discharge, 7 second-feet Nov. 24 to Jan. 3, Jan. 7 to Feb. 28, Mar. 10-25; minimum gage height, 1.33 feet Feb. 21, 22.
1911-40: Maximum discharge, 5,610 second-feet Apr. 21, 1938 (gage height, 11.55 feet); no flow Feb. 3, 1915.

Remarks.- Records good. Many ranch diversions in upper drainage area. Flow regulated by Magic Reservoir (see p. 104).

Cooperation.- Gage-height record and ten discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	a8	a7	7	7	8	a9	123	804	794	574	h520
2	10	a8	7	a7	7	8	a9	243	788	377	574	h525
3	10	a8	7	a7	7	8	a10	179	766	12	574	h520
4	10	h8	7	a86	7	8	a10	179	738	12	574	h505
5	10	a8	7	195	7	8	a10	179	711	14	574	465
6	10	a8	7	86	7	e	10	295	706	635	579	450
7	9	h8	7	7	7	8	10	331	706	804	574	435
8	9	a8	a7	7	7	e	10	394	672	772	579	408
9	9	a8	7	7	7	8	10	455	645	766	568	404
10	9	a8	7	7	7	7	10	520	623	766	568	399
11	9	h8	7	7	7	7	10	590	618	772	568	417
12	9	a8	7	7	7	7	10	623	623	777	574	440
13	9	a9	7	7	7	7	10	645	628	777	574	440
14	9	9	7	7	7	7	10	650	628	794	574	445
15	9	8	7	7	7	7	12	645	634	821	568	445
16	9	a8	7	7	7	7	12	689	650	832	552	445
17	9	a8	7	7	7	7	12	722	645	816	552	445
18	9	8	7	7	7	7	12	744	662	799	552	440
19	9	134	7	7	7	7	12	760	689	766	552	422
20	9	430	7	7	7	a7	12	760	700	755	552	399
21	9	460	7	a7	7	a7	12	755	706	744	568	377
22	9	440	7	a7	7	a7	12	788	711	733	568	356
23	9	176	7	a7	7	h7	12	804	722	711	574	351
24	9	a7	7	a7	7	a7	12	826	722	689	574	351
25	9	7	7	a7	7	a7	13	838	744	678	557	339
26	8	7	7	a7	7	a8	13	804	788	678	552	335
27	a8	7	7	7	7	a8	13	810	799	656	557	335
28	h8	7	7	7	7	a9	13	832	799	623	552	335
29	a8	a7	7	7	8	a9	14	804	794	596	546	335
30	a8	a7	7	7	-	h9	14	794	794	579	525	136
31	a8	-	7	7	-	a9	-	804	-	574	525	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	279	10	8	9.0	553
November	1,835	460	7	61.2	3,640
December	217	7	7	7.0	430
Calendar year 1939	151,463	2,250	7	415	300,400
January	563	195	7	18.2	1,120
February	204	8	7	7.0	405
March	236	9	7	7.6	468
April	338	14	9	11.3	670
May	18,585	838	123	600	36,860
June	21,215	804	618	707	42,080
July	20,052	832	12	647	39,770
August	17,454	579	525	563	34,620
September	12,219	525	136	407	24,240
Water year 1939-40	93,197	838	7	255	184,900

a No gage-height record; discharge interpolated or computed on basis of known changes of stage.
h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Big Wood River at Gooding, Idaho

Location.- Water-stage recorder, lat. 42°57', long. 114°43', in NE¼NE¼ sec. 31, T. 5 S., R. 15 E., 30 feet downstream from highway bridge and half a mile north of Gooding.

Records available.- June 1896 to October 1899 (published as Malade River at Toponis, Idaho), and April 1921 to September 1940, except for winters.

Extremes.- Maximum discharge recorded during year, 234 second-feet Apr. 24 (gage height, 2.49 feet); probably no flow for long periods.
1921-40: Maximum discharge recorded, 3,900 second-feet Apr. 23, 1938 (gage height, 8.48 feet), from rating curve extended above 3,200 second-feet; no flow for long periods in each year.

Remarks.- Records good except those for Mar. 31 to Apr. 26, which are fair. Many diversions above and below station for irrigation. Flow regulated by Magic Reservoir (see p. 104) and affected by deliveries from Milner-Gooding canal, which diverts from Snake River.

Cooperation.- Gage-height record and three discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	38	174	h36	73	59	60
2						-	46	155	h39	73	51	60
3						-	h15	133	54	67	49	62
4						-	e5	125	62	66	49	62
5						-	e4	171	67	67	51	66
6						-	2	158	71	62	60	71
7						-	2	125	73	60	47	73
8						-	h2	85	73	62	47	71
9						-	1	59	91	62	39	62
10						-	0	51	96	64	37	57
11						-	0	48	87	62	32	49
12						-	0	46	75	55	33	57
13						-	0	49	69	54	37	60
14						-	0	60	64	51	39	61
15						-	0	71	57	51	38	79
16						-	82	67	60	52	36	83
17						-	13	43	57	55	40	65
18						-	4	35	52	59	44	79
19						-	h2	42	46	62	51	85
20						-	h4	40	42	71	54	107
21						-	g155	36	37	73	55	123
22						-	g205	36	36	73	54	125
23						-	g202	34	34	71	57	111
24						-	g218	33	37	71	59	89
25						-	g160	h47	37	66	66	89
26						-	g172	48	35	64	69	89
27						e0	189	48	42	79	67	83
28						-	196	47	55	83	64	66
29						-	196	42	71	83	69	67
30						-	193	42	71	85	66	66
31						4	-	40	-	69	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,106	218	0	70.2	4,180
May	2,193	174	33	70.7	4,350
June	1,726	96	34	57.5	3,420
July	2,045	85	51	66.0	4,060
August	1,583	69	32	51.1	3,140
September	2,317	125	49	77.2	4,600
The period	-	-	-	-	23,750

e Determined by field estimates.
g Computed from graph based on gage readings.
h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Big Wood River near Gooding, Idaho

Location.- Water-stage recorder, lat. 42°54', long. 114°48', in sec. 21, T. 6 S., R. 14 E., at Hudson Ranch, 2 miles downstream from bridge on Bliss-Gooding highway, 3½ miles downstream from Little Wood River, 5 miles upstream from diversion dam for King Hill project, and 6 miles southwest of Gooding.

Records available.- March 1916 to September 1940 (no winter records prior to 1936).

Extremes.- Maximum discharge during year, 1,310 second-feet Feb. 28 (gage height, 6.07 feet); no flow at times, Jan. 19, 21.
1916-40: Maximum discharge, 3,810 second-feet Apr. 23, 1938, from rating curve extended above 3,200 second-feet; maximum gage height, 9.00 feet Mar. 17, 1922; no flow at times in each year.

Remarks.- Records good except those for Dec. 26-31 and Jan. 13 to Feb. 1, which are poor. Diversions above station for irrigation. Flow regulated by Magic Reservoir (see p.104) and affected by deliveries from canals diverting from Snake River at Milner.

Cooperation.- Gage-height record for April to September and three discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers; gage-height record October to March furnished by North Side Canal Co.

Rating table, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.8	6.5	2.0	103	4.4	619
1.0	13.5	2.4	165	4.8	745
1.2	23.5	2.8	237	5.2	890
1.4	39.5	3.2	319	5.6	1,073
1.6	58.0	3.6	409	6.0	1,285
1.8	78.5	4.0	508	6.4	1,520

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	23	26	35	40	308	253	298	28	52	40	24
2	68	32	26	48	*39	218	155	251	22	40	30	30
3	16	30	30	47	57	145	138	182	22	29	26	48
4	12	28	29	60	69	114	155	117	33	53	27	44
5	15	23	26	*61	71	98	128	174	55	55	26	44
6	14	28	24	48	72	82	102	209	62	42	34	52
7	24	26	22	46	90	71	87	175	67	33	35	61
8	22	15	22	82	70	85	98	104	68	31	20	58
9	21	24	21	78	70	126	102	74	94	3[illegible]	16	47
10	22	34	21	72	68	88	111	52	113	3[illegible]	17	43
11	25	34	11	72	57	69	110	35	93	2[illegible]	18	30
12	29	32	22	53	61	64	107	19	72	2[illegible]	18	32
13	29	36	24		44	54	93	20	50	2[illegible]	22	42
14	27	42	30		65	51	81	31	41	25	20	60
15	27	39	35		64	48	81	45	34	2[illegible]	19	78
16	24	30	34		46	59	298	40	29	27	17	76
17	22	22	29		66	72	172	25	30	3[illegible]	19	80
18	17	19	31		56	67	142	19	30	37	23	80
19	14	20	32		59	67	128	30	22	40	22	84
20	8	27	36		48	66	98	33	14	49	30	138
21	19	140	35	25	57	68	188	31	12	54	46	**143**
22	28	168	37		67	71	269	27	12	55	33	**129**
23	20	179	50		74	76	253	22	18	46	41	122
24	20	140	45		58	80	216	18	22	43	41	102
25	20	74	29		61	77	182	38	30	43	40	110
26	20	44			82	77	245	36	20	47	43	122
27	25	26			541	120	352	40	15	58	40	**126**
28	30	26	20		1,120	113	352	42	27	72	28	117
29	30	26			692	100	352	40	45	81	25	**117**
30	27	26			-	111	341	35	54	78	28	137
31	29	-			-	118	-	35	-	64	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	805	101	8	26.0	1,600
November	1,413	179	15	47.1	2,800
December	847	50	11	27.3	1,680
Calendar year 1939	54,803	1,810	-	150	108,700
January	1,177	82	-	38.0	2,330
February	3,964	1,120	39	137	7,860
March	2,963	308	48	95.6	5,880
April	5,389	352	81	180	10,690
May	2,297	298	18	74.1	4,560
June	1,232	113	12	41.1	2,440
July	1,365	81	22	44.0	2,710
August	870	46	16	28.1	1,730
September	2,376	143	24	79.2	4,710
Water year 1939-40	24,698	1,120	-	67.5	48,990

*Winter discharge measurement made on this day.

Note.- Discharge for periods of no gage-height record or ice effect, Dec. 26-31, Jan. 13 to Feb. 1, computed on basis of gage-heights, observer's notes and flow estimates, and weather records.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Big Wood Slough at Hailey, Idaho

Location.- Water-stage recorder, lat. 43°31'00", long. 114°19'30", in sec. 9, T. 2 N., R. 18 E., at highway bridge, an eighth of a mile northeast of steel highway bridge over Big Wood River, and an eighth of a mile southwest of Hailey.

Records available.- June 1915 to September 1940.

Average discharge.- 25 years, 111 second-feet.

Extremes.- Maximum discharge recorded during year, 272 second-feet July 6 (gage height, 3.34 feet); minimum, 1 second-foot Mar. 30 to Apr. 23, May 1-3, 8.
1915-40: Maximum discharge observed, 419 second-feet June 6, 1921, from rating curve extended above 280 second-feet; maximum gage height, 5.55 feet (elevation of top of ice in well) Jan. 20-23, 1937; no flow May 8, 1931, Oct. 20 to Nov. 3, 1938.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Flow affected by operation of Hailey power plant half a mile upstream. Big Wood Slough, a natural channel of Big Wood River, is utilized as a tailrace for the power plant, and its discharge plus the discharge of Big Wood River at Hailey, Idaho, gives the total flow of river at this point.

Cooperation.- Gage-height record and two discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	148	124	110	107	126	1	1	11	3	148	114
2	117	148	122	110	110	126	1	1	12	5	146	112
3	122	150	122	110	116	122	1	1	10	11	141	150
4	125	148	118	105	116	116	1	2	9	156	144	160
5	125	143	117	105	112	122	1	2	10	247	137	212
6	140	133	121	99	116	114	1	2	12	247	136	166
7	155	125	116	91	113	122	1	2	14	247	144	151
8	151	124	120	102	109	127	1	1	13	239	147	212
9	151	124	125	110	113	125	1	2	12	231	137	209
10	148	116	133	113	116	127	1	2	14	215	130	193
11	145	120	131	104	112	124	1	2	21	223	140	166
12	145	125	125	99	103	113	1	3	22	213	139	172
13	145	122	124	96	98	109	1	2	22	202	136	181
14	148	120	127	91	113	118	1	2	23	201	132	181
15	145	120	129	88	113	124	1	3	21	201	130	181
16	140	120	133	92	102	127	1	3	20	204	126	178
17	134	120	136	102	116	129	1	3	18	202	120	166
18	133	118	126	105	118	131	1	3	19	202	132	163
19	136	122	114	89	113	133	1	3	22	187	126	178
20	137	125	116	102	102	140	1	3	21	213	126	181
21	152	125	113	92	89	148	1	3	19	207	147	184
22	150	125	113	95	103	161	1	4	16	194	136	196
23	149	127	110	105	104	184	1	3	13	176	137	181
24	147	126	112	109	104	194	2	4	5	166	134	172
25	146	125	96	110	109	203	2	4	3	156	126	172
26	144	126	88	110	113	160	2	4	3	162	137	175
27	143	126	93	110	122	190	2	4	3	181	132	169
28	141	125	96	110	118	200	2	3	3	176	122	181
29	146	120	105	110	130	60	2	3	3	153	120	231
30	151	125	109	110	-	1	2	3	3	151	117	223
31	151	-	110	110	-	1	-	5	-	156	122	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,365	155	103	141	8,660
November	3,821	150	116	127	7,580
December	3,624	136	88	117	7,190
Calendar year 1939	55,341	211	88	152	109,800
January	3,194	113	88	103	6,340
February	3,210	130	89	111	6,370
March	3,977	203	1	128	7,890
April	37	2	1	1.2	73
May	83	5	1	2.7	165
June	397	23	3	13.2	787
July	5,527	247	3	178	10,960
August	4,147	148	117	134	8,230
September	5,310	231	112	177	10,530
Water year 1939-40	37,692	247	1	103	74,780

Note.- Discharge for periods of no gage-height record, Oct. 22-27, 29, Jan. 1-5, 22, 23, 25-31, Mar. 26 to Apr. 15, interpolated or computed on basis of field estimates, power plant records, weather records, and records of nearby stations. Discharge computed from staff-gage readings Oct. 28, Jan. 24, May 21, 22, June 28, July 14-19, 28, Aug. 18-20, Aug. 22 to Sept. 10, Sept. 15-30.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Camas Creek near Blaine, Idaho

Location.- Water-stage recorder, lat. 43°20', long. 114°33', in sec. 15, T. 1 S., R. 16 E., a quarter of a mile north of Macon siding on Hill City branch of Oregon Short Line Railroad, three-eighths of a mile downstream from Willow Creek, 2¼ miles upstream from backwater of Magic Reservoir, and 4 miles southeast of Blaine.

Drainage area.- 618 square miles.

Records available.- May 1912 to September 1940, except for winters. Discharge measurements only for 1922.

Extremes.- Maximum discharge during year, 2,930 second-feet Mar. 28 (gage height, 9.25 feet); minimum recorded, 1.5 second-feet Aug. 29 (gage height, 0.95 foot).
1921-40: Maximum discharge recorded, 8,690 second-feet about April 18, 1938 (gage height, 15.48 feet, from floodmark, from rating curve extended above 6,000 second-feet; minimum recorded, that of Aug. 29, 1940.

Remarks.- Records good. Many small diversions above station; no appreciable regulation.

Cooperation.- Gage-height record and three discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-				-	1,900	326	70	3.1	1.8	1.7
2		-				-	1,800	303	67	3.1	1.8	1.8
3		-				-	1,360	283	64	3.0	1.8	2.0
4		-				-	950	274	60	2.8	2.0	2.0
5		-				-	792	259	69	2.7	2.0	1.8
6		-				-	705	255	61	2.6	2.0	1.8
7		-				-	670	230	56	2.6	1.8	91
8		-				-	601	208	53	2.4	1.8	96
9	h2.8	-				60	520	178	50	2.3	1.7	18
10		-				58	490	170	45	2.3	1.7	5.4
11		-				53	460	176	36	2.3	1.8	3.1
12		-				54	418	188	31	2.3	1.8	3.1
13		-				58	391	192	26	2.3	1.8	3.3
14		-				59	391	206	22	2.2	1.8	3.4
15		3.4				56	432	198	19	2.2	1.7	3.3
16		3.4				66	536	180	17	2.2	1.8	2.8
17		-				85	446	168	15	2.3	1.8	2.8
18		-				132	378	168	14	2.3	1.8	2.7
19		-				141	361	157	12	2.3	1.8	3.0
20		-				150	364	145	9.5	2.3	1.8	4.8
21		-				202	356	136	8.6	2.2	2.0	7.4
22		-				239	338	129	7.4	2.2	1.8	5.4
23		-				356	323	124	6.1	2.1	1.8	3.9
24		-				460	298	121	5.0	2.0	1.8	3.1
25		-				635	288	116	4.8	2.0	1.8	2.8
26		-				1,080	320	110	4.2	2.0	1.8	2.8
27		-				2,450	378	102	3.8	2.0	1.8	2.8
28		-				2,750	432	96	3.4	2.0	1.8	3.0
29		-				2,120	432	90	3.3	2.0	1.7	3.3
30		-				1,700	364	83	3.3	2.0	1.7	3.6
31		-				1,650	-	74	-	2.0	1.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 9-31	14,614	2,750	53	635	28,990
April	17,494	1,900	288	533	34,700
May	5,445	326	74	176	10,800
June	848.4	70	3.3	28.3	1,680
July	72.1	3.1	2.0	2.33	143
August	56.0	2.0	1.7	1.81	111
September	291.9	96	1.7	9.73	579
The period	-	-	-	-	77,000

h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Lincoln canal near Richfield, Idaho

Location.- Water-stage recorder, lat. 43°10', long. 114°19', in sec. 9, T. 3 S., R. 18 E., at head of canal, 100 yards east of Shoshone-Hailey highway, 5½ miles downstream from Magic Dam, and 12 miles northwest of Richfield.

Records available.- April 1925 to September 1940 (prior to 1937, irrigation seasons only).

Extremes.- Maximum discharge during year, 201 second-feet May 31; maximum gage height, 1.99 feet Sept. 16; no flow during long periods.
1925-40: Maximum discharge, 706 second-feet May 28, 1927 (gage height, 4.00 feet), from rating curve extended above 600 second-feet; no flow during long periods in each year.

Remarks.- Records good. Canal diverts water from right bank of Big Wood River in sec. 9, T. 3 S., R. 18 E., from which point it approximately parallels river for 10 miles to head of North Gooding canal in sec. 15, T. 4 S., R. 18 E., where water is either diverted into North Gooding canal or returned to Big Wood River. Canal is used to avoid large channel losses in natural bed of river. No diversions above gage.

Cooperation.- Gage-height record and 11 discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0						0	184	167	136	133
2		0						120	184	83	140	136
3		0						127	179	0	140	138
4		0						128	176	0	142	138
5		0						128	181	0	146	130
6		0						128	161	94	150	122
7		0						126	169	184	151	126
8		0						136	172	186	150	122
9		0						140	167	167	145	128
10		0						140	156	187	138	133
11		0						150	144	186	144	136
12		0						150	138	187	151	138
13		0						150	136	187	148	136
14		0						156	140	191	145	134
15		0						162	140	198	146	140
16		0						164	151	198	145	148
17		0						162	161	191	144	146
18		0						164	157	182	145	145
19		0						164	157	172	148	139
20		114						165	157	176	150	133
21		159						164	172	174	151	133
22		151						174	169	170	146	126
23		76						187	164	165	148	117
24		0						192	161	159	150	118
25		0						192	162	156	148	115
26		0						192	169	154	138	115
27		0						186	172	153	139	117
28		0						181	172	146	144	117
29		0						189	174	146	145	116
30		0						184	167	145	136	66
31		-						191	-	138	133	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	500	159	0	16.7	992
December	0	0	0	0	0
Calendar year 1939	26,171	233	0	71.7	51,910
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	4,608	192	0	15[illegible]	9,540
June	4,892	184	136	16[illegible]	9,700
July	4,662	190	0	15[illegible]	9,250
August	4,482	151	133	14[illegible]	8,890
September	3,840	148	66	12[illegible]	7,620
Water year 1939-40	23,184	198	0	63.5	45,990

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Lincoln canal near Shoshone, Idaho

Location.- Water-stage recorder, lat. 43°05', long. 114°19', in sec. 15, T. 4 S., R. 18 E., a quarter of a mile upstream from outlet of canal, 7 miles west of Richfield, 11 miles northeast of Shoshone, and 12½ miles downstream from Magic Dam.

Records available.- May 1925 to September 1940 (1929-36, irrigation seasons only).

Extremes.- Maximum discharge during year, 162 second-feet May 23 (gage height, 1.14 feet); no flow for long periods.
1925-40: Maximum discharge, 667 second-feet May 29, 1927 (gage height, 2.48 feet), from rating curve extended above 550 second-feet; no flow for long periods each year.

Remarks.- Records good. Canal diverts water from right bank of Big Wood River in sec. 9, T. 3 S., R. 18 E., from which point it approximately paralells river for 10 miles, to head of North Gooding canal, in sec. 15, T. 4 S., R. 18 E., where its water is either diverted into North Gooding canal or returned to Big Wood River. Canal is used to avoid large channel losses in natural bed of river. Five ditches have rights to divert 12.5 second-feet above this station for irrigation.

Cooperation.- Gage-height record and three discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	0						0	147	143	118	112
2	2	0						44	147	125	121	112
3	0	0						95	145	9	121	112
4	0	0						100	138	0	121	112
5	0	0						102	152	0	121	110
6	0	0						102	136	18	125	104
7	0	0						100	134	140	125	104
8	0	0						104	140	145	125	102
9	0	0						121	136	147	123	104
10	0	0						118	129	150	116	108
11	0	0						118	121	150	118	110
12	0	0						118	114	150	125	112
13	0	0						118	112	150	125	112
14	0	0						123	116	152	121	112
15	0	0						129	116	157	121	114
16	0	0						131	123	157	123	121
17	0	0						129	136	154	121	121
18	0	0						129	136	145	121	118
19	0	0						129	136	138	121	118
20	0	25						131	134	140	123	112
21	0	123						134	145	140	125	110
22	0	123						138	143	138	121	108
23	0	95						152	140	136	121	100
24	0	1						157	138	136	123	100
25	0	0						157	138	134	123	100
26	0	0						157	143	134	114	100
27	0	0						152	147	134	114	102
28	0	0						145	147	129	118	102
29	0	0						152	147	127	118	100
30	0	0						147	145	127	118	91
31	0	-						152	-	121	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15	13	0	0.5	30
November	367	123	0	12.2	728
December	0	0	0	0	0
Calendar year 1939	20,656	193	0	56.6	40,990
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	3,784	157	0	122	7,510
June	4,081	152	112	136	8,090
July	3,826	157	0	123	7,590
August	3,742	125	112	121	7,420
September	3,243	121	91	108	6,430
Water year 1939-40	19,058	157	0	52.1	37,800

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Thorn Creek spillway near Gooding, Idaho

Location.- Water-stage recorder, lat. 43°01', long. 114°37', in sec. 6, T. 5 S., R. 16 E., 600 feet downstream from point of diversion from North Gooding canal, 900 feet upstream from Thorn Creek, and 7½ miles northeast of Gooding.

Records available.- April 1928 to September 1940 (prior to 1937, irrigation seasons only).

Extremes.- Maximum discharge during year, 242 second-feet Apr. 24 (gage height, 2.22 feet); no flow for long periods.
1928-40: Maximum discharge, 447 second-feet Apr. 24, 1938 (gage height, 2.90 feet); usually no flow during nonirrigation seasons.

Remarks.- Records good. Spillway diverts from North Gooding canal and discharges into Thorn Creek in sec. 6, T. 5 S., R. 16 E. It is utilized as part of plan to minimize losses from natural channel of Big Wood River.

Cooperation.- Gage-height record and results of three discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	0					0	207	113	160	142	140
2	8	0					0	193	115	160	135	140
3	0	0					0	168	127	158	137	138
4	0	0					0	185	135	154	138	138
5	0	0					0	225	135	152	138	146
6	0	0					0	198	140	148	138	150
7	0	0					0	164	140	146	125	148
8	0	0					0	126	152	150	120	140
9	0	0					0	108	168	152	116	138
10	0	0					0	109	170	152	115	131
11	0	0					0	111	160	148	113	127
12	0	0					0	h113	152	140	116	131
13	0	0					0	h122	146	138	120	133
14	0	0					0	h138	142	137	122	140
15	0	0					0	h150	137	137	118	133
16	0	0					0	137	138	144	118	140
17	0	0					0	118	137	142	124	138
18	0	0					0	115	137	148	133	125
19	0	37					0	115	127	152	138	135
20	0	162					78	113	122	158	140	148
21	0	162					158	108	116	160	138	144
22	0	181					211	105	118	160	140	140
23	0	158					218	103	120	162	142	122
24	0	24					204	115	120	152	146	106
25	0	2					178	120	122	148	154	106
26	0	0					189	120	122	148	154	105
27	0	0					213	120	131	162	150	95
28	0	0					218	122	148	168	142	82
29	0	0					227	120	162	170	142	88
30	0	0					225	118	160	166	142	86
31	0	-					-	115	-	154	142	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	78	70	0	2.5	155
November	726	181	0	24.2	1,440
December	0	0	0	0	0
Calendar year 1939	24,467	309	0	67.0	48,540
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	2,119	227	0	70.6	4,200
May	4,184	225	103	135	8,300
June	4,112	170	113	137	8,160
July	4,726	170	137	152	9,370
August	4,138	154	113	133	8,210
September	3,833	150	82	128	7,600
Water year 1939-40	23,916	227	0	65.7	47,440

h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Little Wood River near Richfield, Idaho

Location.- Water-stage recorder, lat. 43°03', long. 114°08', in sec. 30, T. 4 S., R. 20 E., half a mile upstream from Jim Burn's Slough and heading of Dietrich canal and 1 mile east of railroad station at Richfield.

Records available.- January 1911 to September 1940 (irrigation seasons only).

Extremes.- Maximum discharge recorded, 334 second-feet Apr. 1 (gage height, 2.46 feet); minimum recorded, 53 second-feet Aug. 7, 8; minimum gage height recorded, 1.18 feet May 21, 22.

1911-40: Maximum discharge recorded, 868 second-feet May 3, 1938 (gage height, 3.97 feet), from rating curve extended above 800 second-feet; minimum recorded, 7.6 second-feet June 24, 25, 1920 (gage height, 0.52 foot).

Remarks.- Records good. Small ranch diversions above station.

Cooperation.- Gage-height record and 12 discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	118	125			-	303	216	64	75	65	65
2	87	118	h125			-	328	198	62	68	62	66
3	90	118	-			-	310	194	61	66	61	66
4	95	118	-			-	285	h210	61	71	61	71
5	95	118	-			-	276	229	71	72	58	74
6	100	122	-			-	276	221	72	74	54	74
7	a103	122	-			-	273	188	74	75	57	75
8	a106	122	-			-	246	158	72	76	54	75
9	a109	124	-			-	235	134	71	69	62	74
10	a112	124	-			-	227	112	72	69	66	74
11	h115	124	-			-	213	h108	72	69	64	69
12	a115	124	-			-	208	87	69	74	59	71
13	115	124	-			-	205	105	66	69	58	72
14	113	122	-			-	232	134	69	69	58	h74
15	113	122	-			-	241	117	69	72	61	76
16	117	122	-			-	267	86	68	72	65	72
17	117	122	-			-	a268	72	68	69	64	72
18	115	122	-			-	270	h58	69	68	68	75
19	113	122	-			-	258	h58	68	68	69	80
20	108	124	-			178	255	57	71	65	66	80
21	108	124	-			176	261	59	72	65	66	80
22	112	124	-			171	264	59	h72	66	66	81
23	115	a124	-			167	261	61	h75	66	69	87
24	115	124	-			160	241	59	h75	61	69	90
25	118	124	-			154	232	58	76	59	69	93
26	120	124	-			150	241	59	76	57	71	93
27	120	124	-			162	255	66	78	58	69	93
28	120	125	-			h267	246	56	80	64	69	93
29	118	125	-			303	229	64	78	64	69	95
30	120	125	-			273	224	65	78	66	66	97
31	118	-	-			273	-	64	-	65	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,406	120	84	110	6,760
November	3,675	125	118	122	7,290
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 20-31	2,434	303	150	203	4,830
April	7,630	328	205	254	15,130
May	3,422	229	57	110	6,790
June	2,129	80	61	71.0	4,220
July	2,101	76	57	67.8	4,170
August	1,980	71	54	63.9	3,930
September	2,357	97	65	78.6	4,680
Water year	-	-	-	-	-

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Little Wood River at Shoshone, Idaho

Location.- Water-stage recorder, lat. 42°56', long. 114°24', in sec. 2, T. 6 S., R. 17 E., just upstream from diversion dam for town water supply and 400 feet upstream from Shoshone-Richfield highway bridge in Shoshone.

Records available.- April 1922 to September 1940 (irrigation seasons only).

Extremes.- Maximum discharge recorded, 430 second-feet June 10 (gage height, 2.36 feet); minimum recorded, 8 second-feet Oct. 4 (gage height, 0.6 foot).
1922-40: Maximum discharge recorded, 664 second-feet June 18, 1922; maximum gage height recorded, 3.85 feet July 4, 1938; practically no flow July 29, 1931, Oct. 3, 1938.

Remarks.- Records good. Many diversions both above and below station for irrigation. Flow affected by operation of Milner-Gooding canal, which diverts from Snake River and crosses Little Wood River above station.

Cooperation.- Gage-height record and seven discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Rating table, Mar. 22 to Sept. 30, 1940 (gage height, in feet, and discharge, in second-feet)

1.0	83	1.8	350
1.2	140	2.0	384
1.4	213	2.2	411
1.6	294	2.4	434

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	-				-	197	320	376	410	390	354
2	55	-				-	230	310	376	408	387	355
3	28	-				-	267	294	384	403	384	354
4	16	-				-	255	313	387	404	355	h354
5	26	-				-	217	364	388	398	384	h359
6	26	-				-	174	385	385	391	361	h361
7	-	-				-	209	363	382	391	345	h350
8	-	-				-	205	348	402	395	345	h345
9	-	-				-	194	338	424	403	345	h340
10	-	-				-	186	357	426	395	345	h331
11	-	-				-	182	354	419	388	348	h331
12	-	-				-	174	354	410	382	350	h331
13	-	-				-	171	385	404	382	348	333
14	-	-				-	171	397	399	382	348	294
15	-	-				-	182	394	406	385	345	274
16	-	-				-	213	366	406	392	348	271
17	-	h70				-	230	354	402	399	352	263
18	-	-				-	247	361	399	404	359	242
19	-	-				-	238	357	391	404	361	251
20	-	-				-	217	359	387	402	361	263
21	-	-				-	209	363	384	399	361	259
22	-	-				128	213	363	381	401	359	247
23	-	-				125	186	364	384	404	357	226
24	-	-				119	213	374	398	403	361	217
25	-	-				116	f254	376	398	401	364	217
26	-	-				107	320	379	394	399	364	217
27	-	-				113	333	382	397	406	361	197
28	-	-				160	336	385	412	410	359	186
29	-	-				209	336	385	416	408	357	186
30	-	-				209	331	384	406	403	357	113
31	-	-				186	-	382	-	395	355	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1-6	223	72	16	37.2	442
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 22-31	1,472	209	107	147	2,920
April	6,590	336	171	230	13,670
May	11,210	397	294	362	22,230
June	11,923	426	376	397	23,650
July	12,347	410	382	398	24,490
August	11,146	390	345	360	22,110
September	8,421	361	113	281	16,700
Water year	-	-	-	-	-

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Silver Creek near Picabo, Idaho

Location.- Water-stage recorder, lat. 43°17', long. 114°01', in sec. 1, T. 2 S., R. 20 E., 1½ miles downstream from drain ditch of Blaine County Drainage District No. 1 and 3 miles southeast of Picabo.

Records available.- May 1920 to September 1940 (1922-35, irrigation seasons only).

Extremes.- Maximum discharge during year, 189 second-feet Mar. 28; maximum gage height, 3.14 feet Jan. 21, affected by ice; minimum daily discharge, 66 second-feet May 16 (gage height, 0.98 foot).

1920-40: Maximum discharge, 312 second-feet Apr. 3, 1923; maximum gage height, 3.41 feet Apr. 15, 1936; minimum discharge, 26 second-feet June 2, 1920 (gage height, 0.48 foot).

Remarks.- Records good. Many diversions above station for irrigation. Records of discharge do not include water bypassed at times around station by slough on right bank from which there is some diversion for irrigation.

Cooperation.- Gage-height record and two discharge measurements furnished by watermaster for Big Wood and Little Wood Rivers.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	121	130	128	118	169	a155	122	85	108	116	94
2	124	121	129	134	120	167	a152	118	86	110	113	96
3	131	122	129	142	119	160	a150	118	88	114	108	99
4	131	122	129	142	121	152	h147	112	90	114	106	101
5	130	125	128	138	120	150	a148	104	96	116	105	103
6	129	124	130	134	124	148	h148	103	98	116	104	a106
7	132	126	129	130	124	149	a144	101	100	112	106	108
8	134	127	128	130	120	159	a139	102	99	111	109	108
9	135	129	127	133	120	174	h135	98	h101	113	111	109
10	134	128	130	130	125	173	a134	92	a99	113	112	106
11	132	132	130	126	128	161	h133	76	97	113	111	104
12	132	128	127	125	123	150	a132	69	94	113	110	106
13	131	127	124	125	121	143	h130	70	98	113	110	116
14	131	129	126	126	124	140	128	70	92	114	110	124
15	136	129	126	125	123	144	132	69	91	115	109	120
16	135	128	131	120	119	156	150	66	93	116	109	122
17	134	129	134	120	120	167	157	70	93	115	109	124
18	135	128	131	120	120	174	142	74	93	117	107	124
19	124	127	126	120	119	177	134	76	95	116	105	124
20	122	126	126	120	116	176	132	75	98	114	105	a130
21	121	127	128	120	116	174	126	80	98	112	107	h136
22	124	126	129	120	121	168	125	82	101	111	106	a135
23	124	126	127	120	120	161	127	80	102	112	106	h134
24	128	127	130	120	118	153	113	81	103	112	106	a132
25	130	127	130	120	117	149	123	81	106	111	105	h130
26	128	128	125	121	120	149	130	88	110	115	104	a130
27	127	130	120	118	141	169	133	86	108	119	102	h130
28	124	133	120	118	172	187	132	88	104	121	101	a131
29	121	133	120	117	173	169	127	90	103	120	99	h132
30	121	132	120	118	-	159	124	87	104	130	99	a132
31	121	-	124	119	-	158	-	89	-	119	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,977	136	116	128	7,890
November	3,817	133	121	127	7,570
December	3,943	134	120	127	7,820
Calendar year 1939	47,074	250	86	129	93,370
January	3,873	142	113	125	7,680
February	3,622	173	116	125	7,180
March	4,985	187	140	161	9,890
April	4,082	157	113	136	8,100
May	2,717	122	66	87.6	5,390
June	2,925	110	85	97.5	5,800
July	3,545	121	108	114	7,030
August	3,308	116	98	107	6,560
September	3,546	136	94	118	7,030
Water year 1939-40	44,340	187	66	121	87,940

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

Note.- Stage-discharge relation affected by ice Dec. 26-30, Jan. 12-25. The flow in bypass channel, which carries water around gage, measured as 18.6 second-feet Mar. 10; 17.4 second-feet Mar. 22; and no flow was reported Nov. 9 and Aug. 12.

February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

King Hill canal near Hagerman, Idaho

Location.- Staff gage, lat. 42°52', long. 114°55', in SW¼ sec. 27, T. 6 S., R. 13 E., 430 feet upstream from mouth of inverted syphon crossing Snake River, 1,000 feet downstream from heading at Idaho Power Co.'s canal, half a mile west of highway bridge over Big Wood River, and 3½ miles north of Hagerman.

Records available.- March 1930 to September 1940 (except 1939, irrigation seasons only).

Extremes.- Maximum discharge observed during year, 327 second-feet May 28, 29 (gage height, 3.62 feet); no flow for long periods during winter and May 31, June 12-14, 26, July 23, when gates were closed.

1930-40: Maximum discharge observed, that of May 28, 29, 1940; maximum gage height, 3.64 feet July 3, 4, 1931, Aug. 13 to Sept. 4, 1935, Aug. 11-14, Aug. 16 to Sept. 1, 1936; practically no flow for long periods each year.

Remarks.- Records good. Gage read twice daily. This canal, which is operated by King Hill Irrigation District to provide water for irrigation of its project, diverts from Idaho Power Co.'s canal, which in turn diverts from Big Wood River (Malad Springs water).

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	273			-	-		3	279	315	312	320	315
2	273			-	-		98	279	322	310	320	306
3	273			-	-		141	279	315	310	317	300
4	165			-	-		141	290	310	310	320	296
5	0			-	-		141	290	310	310	320	293
6	0			-	-		141	293	310	310	320	288
7	0			-	-		141	298	310	308	320	273
8	0			-	-		141	303	306	303	320	273
9	0			-	-		141	306	306	306	320	257
10	0			-	-		141	313	301	310	320	263
11	0			-	-		141	315	305	313	320	271
12	0			-	-		147	317	255	313	320	271
13	0			-	-		153	317	0	317	320	276
14	0			-	-		155	317	110	317	320	276
15	0			-	-		169	318	288	317	320	267
16	0			-	-		177	320	300	317	320	257
17	0			-	-		185	320	303	317	320	254
18	0			-	-		209	320	305	318	320	251
19	0			-	-		236	320	312	320	320	247
20	0			-	-		241	320	313	320	318	244
21	0			-	-		241	320	313	320	315	235
22	0			-	-		247	320	308	320	320	222
23	0			-	-		253	318	306	165	320	210
24	0			-	-		263	318	303	301	320	208
25	0			-	-		270	320	300	320	320	208
26	0			e2	-		273	322	231	320	320	204
27	0			-	-		275	322	313	320	320	203
28	0			-	e2.5		276	327	313	320	320	196
29	0			-	-		276	321	312	320	313	196
30	0			-	-		276	324	312	317	310	196
31	0			-	-		276	237	-	320	315	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	984	273	0	31.7	1,950
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	5,692	276	3	190	11,290
May	9,563	327	237	308	18,970
June	8,607	322	0	287	17,070
July	9,601	320	165	310	19,040
August	9,888	320	310	319	19,610
September	7,556	315	196	252	14,990
Water year	-	-	-	-	-

e Field estimate.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Clover Creek near Bliss, Idaho

Location.- Staff gage, lat. 42°59', long. 115°01', in SW¼ sec. 15, T. 5 S., R. 12 E., at Whitlatch Ranch, just upstream from flow line of Saunders Reservoir, 3⅞ miles upstream from Hog Creek, and 5 miles northwest of Bliss.

Records available.- April 1938 to September 1940.

Extremes.- Maximum discharge observed during year, 1,320 second-feet Feb. 28 (gage height, 6.20 feet); no flow for many days June to September.
1938-40: Maximum discharge observed, that of Feb. 28, 1940; no flow for many days during each summer.

Remarks.- Records good except those for period of backwater from Saunders Reservoir, which are fair and those for periods of ice effect, which are poor. Many diversions above and below station for irrigation. Gage read twice daily.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	2.7	2.9	5.0	9.0	270	c220		4.8	0	0.1	0
2	2.5	2.9	2.7	6.2	9.0	202		c35	5.1	0	1.5	0
3	2.5	2.9	2.7	6.8	8.4	140			5.3	0	1.7	0
4	2.8	2.9	2.9	*7.2	52	113		c18	5.0	0	.4	0
5	2.8	3.2	2.9	5.3	44	106			5.0	0	.2	0
6	2.8	3.2	3.0	4.8	154	82			4.8	0	.1	0
7	2.8	3.2	3.2	4.2	202	81	c55		4.4	0	0	.5
8	2.5	3.2	2.9	5.3	43	230			4.2	0	0	.3
9	2.5	3.2	2.9	10	30	169		c8	4.2	0	0	.2
10	2.5	2.9	2.7	9.0	113	94			4.1	0	0	.5
11	2.5	2.7	2.7	7.2	68	58			3.7	0	.1	1.5
12	2.5	3.2	2.7	6.2	29	44			4.1	0	1.5	2.0
13	2.5	3.2	2.7	5.8	16	35	c21		3.9	0	1.6	2.8
14	2.5	2.9	2.7	5.5	18	33			.7	0	1.9	2.4
15	2.5	2.9	3.2	5.0	19	60		c1.3	.7	.1	1.6	2.2
16	2.3	3.2	3.9	6.2	12	94			.5	.3	1.5	2.1
17	2.5	2.8	2.9	6.0	11	113	c15		.5	.1	.3	2.1
18	2.5	3.3	2.8	b5.5	11	100			.3	0	0	1.8
19	2.5	3.0	3.0	5.0	10	87			.1	0	.1	3.4
20	2.8	3.3	3.2	6.2	10	88			.1	0	0	3.4
21	2.8	2.4	3.2	5.8	10	82	c14		0	0	0	3.3
22	2.8	2.9	b3.0	5.3	10	63		c3	0	0	.2	2.7
23	2.8	2.9	b3.0	5.3	13	55	c10		0	0	.3	2.7
24	2.8	3.2	b2.5	7.8	12	45			0	0	.2	2.7
25	2.8	3.2	b2.5	8.4	48	44	c13		0	0	.1	2.7
26	2.8	3.2	b3.0	9.0	259	c45			0	.3	.1	2.4
27	2.8	3.2	b3.5	6.5	1,080	c314			0	.4	0	2.2
28	2.8	*3.2	b3.5	6.5	1,200	c154	c45		0	.2	0	2.2
29	2.7	3.2	b3.5	6.2	600	c113		5.3	0	.2	0	2.7
30	2.7	3.2	b3.5	11	-	c94		5.3	0	.1	0	2.4
31	2.7	-	b4.0	9.8	-	c239	-	5.3	-	.1	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	81.8	2.8	2.3	2.64	162
November	91.4	3.3	2.4	3.05	181
December	93.8	4.0	2.5	3.03	186
Calendar year 1939	6,386.1	860	0	17.5	12,670
January	204.0	11	4.2	6.58	405
February	4,100.4	1,200	8.4	141	8,130
March	3,447	314	33	111	6,840
April	1,233	220	-	41.1	2,450
May	259.2	-	-	8.36	514
June	61.5	5.3	0	2.05	122
July	1.8	.4	0	.06	3.6
August	13.5	1.9	0	.44	27
September	51.2	3.4	0	1.71	102
Water year 1939-40	9,638.6	1,200	0	26.3	19,120

*Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
c Backwater from Saunders Reservoir; discharge computed on basis of gage heights, discharge measurements, and weather records.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

King Hill Creek near King Hill, Idaho

Location.- Staff gage, lat. 43°01', long. 115°14', in SW¼ sec. 2, T. 5 S., R. 10 E., at road bridge on Worth Montgomery Ranch, 1½ miles upstream from mouth and 1⅝ miles northwest of King Hill.

Drainage area.- 83.6 square miles.

Records available.- April 1938 to September 1940. February to May 1913, at site 1½ miles upstream.

Extremes.- Maximum discharge observed during year, 763 second-feet Mar. 31 (gage height, about 7.2 feet), from rating curve extended above 350 second-feet; minimum not determined.
1913, 1938-40: Maximum discharge observed, that of Mar. 31, 1940; minimum not determined.

Remarks.- Records good except those for periods of backwater from temporary diversion dam, which are poor. Several diversions above station for irrigation. Gage read twice daily.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		2.0	2.6	3.1	12	73	242	20	4.6	0.4		
2		1.9	2.4	4.6	11	70	194	17	4.5	.5		
3		1.9	2.4	6.4	85	51	176	15	3.9	.6		c0.2
4		1.9	2.4	8.2	44	42	151	15	3.6	.6		
5		2.5	2.2	6.6	29	42	104	14	3.7	.6		
6		2.5	2.3	4.2	70	40	94	12	3.1			c.2
7		2.4	2.2	3.6	118	45	86	12	2.4			c.2
8		2.4	2.2	3.6	29	75	83	9.8	2.0			c.2
9		2.4	2.3	3.7	75	54	76	6.6	2.0			c.2
10	c0.6	2.4	1.9	3.7	32	48	72	4.6	1.7	c.5		.1
11		2.7	1.7	3.7	42	42	72	3.4	1.4			.1
12		2.7	1.7	3.7	48	38	66	3.5	1.2			.1
13		2.7	1.7	3.7	35	38	61	3.5	1.1			.1
14		2.6	1.7	3.7	129	34	60	3.2	.7			.2
15		2.6	1.7	3.9	51	38	63	3.2	.6		c.2	.1
16		2.6	1.7	3.5	13	45	63	3.2	.6	c.4		.1
17		2.6	1.7	3.4	13	57	60	3.1	.5			.2
18		2.7	1.7	3.2	14	60	51	3.1	.4			.3
19		2.7	1.8	3.1	14	60	42	3.1	.4			.3
20		2.7	1.9	2.7	14	63	38	3.0	.4			.3
21	.8	2.6	1.9	2.7	14	63	35	3.0	.3			.1
22	1.2	2.5	1.9	2.7	14	69	31	3.0	.3			.4
23	1.2	2.6	1.9	2.8	14	72	28	3.1	.3			.4
24	1.7	2.5	1.9	4.0	14	80	27	3.0	.3	c.3		.4
25	2.0	2.4	2.0	5.3	18	104	27	2.8	.5			.4
26	2.0	2.4	2.0	5.4	52	149	27	2.7	.4			.4
27	2.0	2.6	2.0	5.9	358	343	33	2.8	.4			.4
28	2.0	2.8	2.0	5.8	267	184	40	3.0	.4			.6
29	2.0	2.6	2.6	7.1	104	185	30	3.6	.4			.6
30	1.8	2.6	3.0	15	-	185	24	4.0	.4			.5
31	2.0	-	3.0	17	-	g300	-	3.3	-			-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	30.7	2.0	-	0.99	61
November	74.5	2.8	1.9	2.48	148
December	64.4	3.0	1.7	2.08	128
Calendar year 1939	4,306.3	146	-	11.8	8,540
January	156.0	17	2.7	5.03	309
February	1,733	358	11	59.8	3,440
March	2,749	300	34	88.7	5,450
April	2,156	242	24	71.9	4,280
May	192.6	20	2.7	6.21	382
June	42.5	4.6	.3	1.42	84
July	12.6	-	-	.41	25
August	6.2	-	-	.20	12
September	7.9	.6	-	.26	16
Water year 1939-40	7,225.4	358	-	19.7	14,340

c Backwater from temporary diversion dem; discharge computed on basis of gage heights, discharge measurements made on Sept. 28, 1939, July 5, 16, Aug. 3, Sept. 6, 1940, and weather records.
g Computed from graph based on gage readings.

Little Canyon Creek near Glenns Ferry, Idaho

Location.- Staff gage, lat. 42°59', long. 115°19', sec. 18, T. 5 S., R. 10 E., at bridge on county road, 2 miles north of Glenns Ferry.

Records available.- December 1938 to September 1940. November 1909 to June 1913 (fragmentary) at site downstream in sec. 30, at Glenns Ferry.

Extremes.- Maximum discharge observed during year, 150 second-feet Feb. 28 (gage height, 4.36 feet); no flow July 17, 18, Aug. 6-10.
1938-40: Maximum discharge observed, that of Feb. 28, 1940; no flow July 17, 18, Aug. 6-10, 1940.

Remarks.- Records fair. Diversions above station for irrigation. Gage read once daily.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.4	0.3	1.2	9.0	52	74	21	1.2	0.6	0.2	0.5
2	.1	.4	.3	1.5	10	43	76	20	1.1	.6	.2	.4
3	.1	.4	.3	1.6	9.6	30	62	19	1.1	.5	.3	.3
4	.1	.5	.4	4.3	13	27	78	17	1.1	.5	.3	.3
5	.2	.5	.5	3.9	16	24	70	15	.9	.4	.4	.3
6	.2	.4	.4	3.0	19	21	56	12	.9	.4	0	.3
7	.3	.5	.4	2.0	18	20	46	11	1.1	.4	0	.3
8	.2	.6	.4	3.2	17	22	46	13	1.2	.4	0	.3
9	.2	.6	.3	5.1	16	20	44	11	1.6	.3	0	.3
10	.2	.6	.3	7.9	16	20	39	10	1.7	.3	0	.2
11	.1	.7	.4	2.8	16	20	37	9.8	1.7	.2	.1	.2
12	.1	.7	.4	2.4	16	19	32	9.4	1.7	.1	.1	.2
13	.1	.6	.6	3.0	17	18	32	8.7	1.6	.1	.1	.2
14	.1	.6	.6	2.6	17	19	33	8.0	1.6	.1	.1	.2
15	.1	.6	.7	2.8	17	20	39	6.3	1.7	.1	.1	.2
16	.1	.6	.9	2.9	18	20	37	5.9	1.6	.1	.1	.3
17	.1	.5	.9	3.4	21	20	33	5.3	1.4	0	.1	.2
18	.1	.5	.9	2.9	18	20	32	4.6	1.4	0	.1	.2
19	.1	.5	.9	2.7	17	20	32	3.8	1.4	.1	.1	.1
20	.2	.5	.9	2.7	17	20	32	3.2	1.2	.1	.1	.1
21	.1	.5	.9	2.7	19	20	30	2.7	1.2	.1	.1	.1
22	.2	.5	.9	2.7	20	20	32	2.8	1.1	.1	.1	.1
23	.2	.5	.9	2.7	23	20	30	2.1	1.1	.1	.1	.2
24	.3	.5	1.0	2.7	22	21	27	1.8	1.1	.1	.1	.1
25	.3	.5	1.0	3.1	26	22	26	1.2	1.1	.e	.2	.1
26	.3	.5	1.2	3.6	33	22	26	.7	1.1	.3	.2	.1
27	.3	.2	1.2	3.6	120	24	24	.6	.9	.2	.2	.1
28	.3	.3	1.1	7.7	144	73	23	.7	.8	.1	.3	.1
29	.3	.3	1.1	8.6	70	83	23	.9	.e	.1	.3	.1
30	.3	.2	1.1	8.0	-	78	23	1.0	.7	.1	.3	.1
31	.4	-	1.1	7.1	-	83	-	1.2	-	.1	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5.8	0.4	0.1	0.19	12
November	14.7	.7	.2	.49	29
December	22.3	1.2	.3	.72	44
Calendar year 1939	1,802.6	104	.1	4.94	3,570
January	114.4	8.6	1.2	3.69	227
February	794.6	144	9.0	27.4	1,580
March	941	83	18	30.4	1,870
April	1,194	78	23	39.8	2,370
May	229.7	21	.6	7.41	456
June	37.1	1.7	.7	1.24	74
July	7.2	.6	0	.23	14
August	4.6	.4	0	.15	9.1
September	6.2	.5	.1	.21	12
Water year 1939-40	3,371.6	144	0	9.21	6,700

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Bennett Creek near Bennett, Idaho

Location.- Water-stage recorder, lat. 43°13'30", long. 115°31'30", in sec. 28, T. 2 S., R.8 E., 100 yards downstream from East Fork of Bennett Creek and 7½ miles southwest of Bennett post office (Dixie store). Prior to Aug. 23, 1940, at datum 2.00 feet higher.

Drainage area.- 21.3 square miles.

Records available.- May 1938 to September 1940.

Extremes.- Maximum discharge during year, 92 second-feet Feb. 29 (gage height, 4.50 feet, present datum, from high-water mark) from rating curve extended above 60 second-feet; practically no flow Oct. 14-18.
1938-40: Maximum discharge, 95 second-feet Mar. 24, 1939 (gage height, 4.71 feet, present datum), from rating curve extended above 60 second-feet; practically no flow, Sept. 16-25, Oct. 14-18, 1939.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No regulation or diversion above station; many diversions for irrigation below.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.1	0.2	0.6	2.0	46	42	15	4.4	0.8	0.4	0.1
2	.2	.1	.2	1.0	2.0	39	38	14	4.2	.7	.3	.1
3	.2	.1	.2	1.8	2.0	33	34	13	4.1	.8	.2	.1
4	.2	.1	.2	1.6	3.0	30	32	13	4.1	.7	.2	.2
5	.1	.1	.2	1.4	4.0	26	35	12	4.0	.8	.2	.2
6	.2	.1	.3	1.0	5.0	23	29	12	3.6	.7	.2	.2
7	.2	.1	.2	.8	5.0	23	28	11	3.5	.7	.2	.1
8	.1	.1	.2	.8	5.0	25	27	11	3.4	.6	.2	.2
9	.1	.1	.3	1.0	5.0	24	29	10	3.1	.6	.2	.1
10	.1	.1	.3	1.1	5.9	22	26	9.7	2.9	.5	.2	.1
11	.1	.1	.2	.7	5.7	20	24	9.3	2.8	.5	.2	.1
12	.1	.1	.2	.7	5.5	19	23	9.3	2.5	.5	.2	.1
13	.1	.1	.2	.5	5.2	18	22	9.2	2.4	.5	.2	.1
14	0	.2	.2	.6	4.9	18	22	8.8	2.4	.4	.3	.2
15	0	.2	.2	.5	5.0	18	22	8.4	2.2	.4	.2	.2
16	0	.2	.2	.5	4.0	18	21	8.1	2.2	.4	.2	.2
17	0	.2	.2	.5	4.0	19	20	7.6	1.9	.4	.2	.2
18	0	.2	.2	.5	4.0	18	19	7.3	1.8	.3	.2	.2
19	.1	.2	.2	.5	4.0	19	19	6.9	1.7	.4	.2	.4
20	.1	.2	.2	.5	3.7	18	19	6.6	1.7	.4	.2	.3
21	.1	.2	.2	.5	3.5	19	18	6.3	1.5	.4	.2	.2
22	.1	.2	.2	.5	3.6	18	18	6.2	1.4	.4	.2	.2
23	.1	.2	.2	.5	4.0	18	17	5.7	1.4	.3	.2	.2
24	.1	.2	.2	.5	4.0	18	17	5.6	1.2	.3	.1	.2
25	.1	.3	.2	1.0	5.0	20	17	5.2	1.3	.3	.1	.2
26	.1	.3	.2	1.0	10	25	19	5.0	1.2	.3	.1	.2
27	.1	.3	.2	2.0	25	37	21	4.9	1.1	.3	.1	.2
28	.1	.3	.2	3.0	50	28	18	4.9	1.1	.3	.1	.2
29	.2	.2	.2	3.0	55	27	17	4.8	1.0	.3	.1	.2
30	.2	.2	.2	h2.3	-	28	16	4.5	1.0	.3	.1	.1
31	.1	-	.4	2.0	-	39	-	4.4	-	.3	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	3.3	0.2	0	0.11	0.0052	0.006	6.5
November	5.1	.3	.1	.17	.0080	.009	10
December	6.7	.4	.2	.22	.010	.01	13
Calendar year 1939	1,712.4	72	0	4.69	.220	2.990	3,400
January	32.9	3.0	.5	1.06	.050	.06	65
February	245.0	55	2.0	8.45	.397	.43	486
March	753	46	18	24.3	1.14	1.31	1,490
April	709	42	16	23.6	1.11	1.24	1,410
May	259.7	15	4.4	8.38	.393	.45	515
June	71.1	4.4	1.0	2.37	.111	.12	141
July	14.6	.8	.3	.47	.022	.03	29
August	5.8	.4	.1	.19	.0089	.01	12
September	5.3	.4	.1	.18	.0085	.009	11
Water year 1939-40	2,111.5	55	0	5.77	.271	3.684	4,190

h Computed from staff-gage reading.
Note.- No gage-height record Jan. 20-29, Jan. 31 to Feb. 9, Feb. 23-29, Apr. 2; discharge computed on basis of high-water marks, weather records, and records for nearby streams.

Mountain Home feeder canal near Mountain Home, Idaho

Location.- Water-stage recorder and concrete control, lat. 43°13', long. 115°42', in sec. 36, T. 2 S., R. 6 E., 30 feet downstream from point of diversion from Canyon Creek and 5 miles north of Mountain Home.

Records available.- April 1924 to September 1929, April 1931 to September 1940.

Extremes.- Maximum discharge during year, 181 second-feet Feb. 29 (gage height, 2.30 feet); practically no flow at times during fall and winter.
1924-29, 1931-40: Maximum discharge, 226 second-feet Feb. 21, 1927 (gage height, 2.18 feet, datum then in use) from rating curve extended above 120 second-feet; no flow for long periods in each year.

Remarks.- Records good. Canal diverts from Canyon Creek in sec. 36, T. 2 S., R. 6 E., and delivers water to Mountain Home cooperative canal, which heads in Mountain Home feeder canal half a mile below station, for irrigation of about 5,000 acres in Mountain Home irrigation district. At times when there is a surplus of water for irrigation, canal feeds directly into Mountain Home Reservoir. No diversion from canal above station; three small diversions between station and headgates of Mountain Home cooperative canal. Flow regulated by headgates on Canyon Creek and by Long Tom and Little Camas Reservoirs.

Cooperation.- Gage-height record furnished by Mountain Home Irrigation District.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	a5	115	81	39	67	83	29	33
2	-	-	-	-	a5	96	81	36	62	80	28	50
3	-	-	-	†2	a6	82	80	35	60	80	36	51
4	-	-	-	-	9	74	76	33	48	75	36	55
5	hl	-	-	-	9	68	79	32	39	76	37	52
6	2	0	0	-	14	59	68	28	28	a74	50	45
7	2	0	0	-	21	55	68	42	26	71	55	43
8	1	1	0	-	19	54	67	67	26	66	55	36
9	1	1	1	-	18	56	71	85	25	66	67	41
10	1	1	1	-	19	52	64	89	25	65	73	48
11	1	1	c1	-	22	50	65	89	29	59	77	47
12	a1	1	c1	-	22	49	62	86	32	56	83	53
13	1	1	c1	-	21	49	59	87	33	56	83	54
14	1	1	1	-	22	44	56	85	50	56	81	50
15	0	hl	1	-	23	36	52	83	60	55	81	45
16	0	-	1	-	19	32	49	82	72	54	76	42
17	0	-	1	-	17	34	47	80	80	47	65	38
18	0	-	1	-	17	36	45	80	81	43	60	34
19	0	-	1	-	15	36	43	79	83	41	54	31
20	0	-	1	-	13	37	42	78	88	40	46	13
21	0	1	1	-	13	38	40	80	90	37	45	8
22	0	1	1	-	14	37	39	80	88	22	44	6
23	0	1	1	-	25	37	36	78	88	25	36	5
24	0	1	1	-	22	37	36	77	87	38	33	4
25	1	1	1	-	37	39	37	76	80	41	31	4
26	1	-	1	-	53	47	38	75	80	42	31	4
27	-	-	1	-	f130	57	47	76	81	36	37	3
28	-	-	1	-	171	52	45	77	80	36	28	3
29	-	-	-	-	156	51	44	81	79	36	26	3
30	-	-	-	h5	-	48	42	79	78	36	31	3
31	-	-	-	a5	-	78	-	70	-	36	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 5-26	14	2	0	0.6	28
November	-	-	-	-	-
December 6-28	20	1	0	.9	40
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	937	171	5	32.3	1,860
March	1,635	115	32	52.7	3,240
April	1,659	81	36	55.3	3,290
May	2,164	89	28	69.8	4,290
June	1,845	90	25	61.5	3,660
July	1,626	83	22	52.5	3,230
August	1,547	83	26	49.9	3,070
September	904	55	3	30.1	1,790
Water year	-	-	-	-	-

†Discharge measurement.
a No gage-height record; discharge interpolated or computed on basis of weather records and records for nearby streams.
c Backwater from beaver dams; discharge computed on basis of weather records and records for nearby streams.
f Computed on basis of partly estimated gage-height record.
h Computed from staff-gage reading.

Mountain Home cooperative canal near Mountain Home, Idaho

Location.- Water-stage recorder and concrete control, lat. 43°12', long. 115°42', in sec. 36, T. 2 S., R. 6 E., at Lamberton weir, 300 feet downstream from point of diversion from Mountain Home feeder canal and 4½ miles north of Mountain Home.

Records available.- April 1924 to September 1929, April 1931 to September 1940.

Extremes.- Maximum discharge during year, 90 second-feet June 21 (gage height, 1.53 feet); no flow for long periods during year.
1924-29, 1931-40: Maximum discharge, 109 second-feet July 16, 1925 (gage height, 1.69 feet, datum then in use); no flow during nonirrigation seasons except occasional stock-water runs.

Remarks.- Records good except those of one second-foot or less, which are poor. No diversions between station and head. Flow regulated by operation of gates at head of canal and Long Tom and Little Camas Reservoirs. Canal diverts from Mountain Home feeder canal. Water is used for irrigation of about 5,000 acres in Mountain Home irrigation district.

Cooperation.- Gage-height record furnished by Mountain Home Irrigation District.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0			a1	17	61	81	28	33
2				0			a1	16	60	80	26	47
3				h1			a1	19	58	79	32	47
4				a1			a1	23	52	72	34	49
5				0			a1	21	37	70	35	47
6				0			a1	21	27	67	46	40
7				0			a1	31	25	66	51	37
8				0			a1	55	25	63	51	33
9				0			a1	75	24	62	62	36
10				0			a1	78	24	61	67	40
11				0			a1	77	28	53	68	40
12				0			h1	77	30	51	74	44
13				0			a1	77	31	51	76	47
14				0			a1	77	47	50	75	43
15				0		a1	a1	77	55	h50	75	25
16				0			a1	75	57	49	68	3
17				0			f17	75	74	42	59	0
18				0			23	75	76	41	54	0
19				0			22	74	79	38	48	0
20				0			21	72	86	39	43	0
21				0			7	73	87	31	40	0
22				0			0	76	86	22	39	0
23				0			0	77	85	24	32	0
24				0			0	77	84	35	31	0
25				0			13	76	80	39	30	0
26				0			21	75	79	39	30	0
27				0			21	74	78	35	36	0
28				0			20	75	77	33	28	0
29				0			20	74	76	35	25	0
30				0			17	72	75	34	30	0
31				0			-	65	-	34	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1939	7,613	82	0	20.9	15,110
January	2	1	0	.1	4.0
February	0	0	0	0	0
March	31	-	-	1.0	61
April	218	23	0	7.3	432
May	1,926	78	16	62.1	3,820
June	1,763	87	24	58.8	3,500
July	1,526	81	22	49.2	3,030
August	1,425	76	25	46.0	2,830
September	611	49	0	20.4	1,210
Water year 1939-40	7,502	87	0	20.5	14,890

a No gage-height record; discharge computed on basis of field determinations and information furnished by watermaster.
f Computed on basis of partly estimated gage-height record.
h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Wickahoney Creek near Bruneau, Idaho

Location.- Water-stage recorder, lat. 42°47', long. 115°59', in sec. 27, T. 7 S., R 4 E., 0.3 mile upstream from mouth and 11 miles southwest of Bruneau.

Records available.- December 1938 to September 1940.

Extremes.- Maximum discharge during year, 36 second-feet Mar. 1 (gage height, 1.81 feet); no flow during most of year.
1939-40: Maximum discharge recorded, 500 second-feet Mar. 20, 1939 (gage height, 4.30 feet); no flow during long periods of each year.

Remarks.- Records good. No regulation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						33						
2						13						
3						6.7						
4						2.1						
5						1.2						
6						4.4						
7						2.2						
8						2.1						
9						24						
10						22						
11						13						
12						6.3						
13						2.5						
14						.9						
15						0						
16					0.15	0						
17						0						
18						.4						
19						.8						
20						0						
21						0						
22						0						
23						0						
24						0						
25						0						
26						0						
27						0						
28						0						
29					4.4	0						
30					-	0						
31					-	0						

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1939	1,996.6	440	0	5.47	3,960
January	0	0	0	0	0
February	4.4	4.4	0	.15	8.7
March	134.6	33	0	4.34	267
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1939-40	139.0	33	0	.38	275.7

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Jacks Creek near Bruneau, Idaho

Location.- Water-stage recorder, lat. 42°47', long. 115°59', in sec. 27, T. 7 S., R. 4 E., 650 feet upstream from confluence with Wickahoney Creek and 11 miles southwest of Bruneau.

Records available.- November 1938 to September 1940.

Extremes.- Maximum discharge during year, 27 second-feet Sept. 7 (gage height, 2.46 feet); no flow during most of year.
1938-40: Maximum discharge, about 700 second-feet Mar. 18, 1939 (gage height, 6.0 feet from floodmark), from rating curve extended above 50 second-feet by logarithmic plotting; no flow during most of period.

Remarks.- Records good. No regulation; ranch diversions above station.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	2.9						0
2					0	1.3						0
3					0	.5						0
4					0	0						0
5					0	0						0
6					0	0						0
7					0	0						2.3
8					0	0						.1
9					0	1.0						0
10					0	.2						0
11					0	0						0
12					0	0						0
13					0	0						0
14					0	0						0
15					0	0						0
16					0	0						0
17					0	0						0
18					0	0						0
19					0	0						1.2
20					0	0						0
21					0	0						0
22					0	0						0
23					0	0						0
24					0	0						0
25					0	0						0
26					0	0						0
27					.3	0						0
28					10	0						0
29					7.0	0						0
30					-	0						0
31					-	0						-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1939	462.5	110	0	1.27	918
January	0	0	0	0	0
February	17.3	10	0	.60	34
March	5.9	2.9	0	.19	12
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	3.6	2.3	0	.12	7.1
Water year 1939-40	26.8	10	0	.07	53

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Wild Horse Reservoir near Gold Creek, Nev.

Location.- Reference point on Wild Horse Dam on Owyhee River, lat. 41°41'10", long. 115°51'20", in NE¼NW¼ sec. 25, T. 44 N., R. 54 E., 8 miles west of Gold Creek. Datum of gage is 6,109.18 feet above mean sea level (levels by U. S. Indian Irrigation Service).

Drainage area.- 209 square miles.

Records available.- March 1938 to September 1940.

Extremes.- 1938-39: Reservoir full and flow over spillway, May 9-18; no contents Sept. 8-30.
1939-40: Maximum contents observed during year, 12,580 acre-feet May 24 (gage height, 65.7 feet); no contents at times.
1938-40: Maximum contents, that of May 9-18, 1939; no contents at times during each year.

Remarks.- Reservoir is formed by concrete arch dam; storage began Mar. 18, 1938. Capacity, 32,690 acre-feet between gage heights 20.0 feet (sill of outlet gate) and 80.0 feet (spillway crest). No dead storage. Water is used for irrigation on Duck Valley project.

Cooperation.- Gage-height record and base data for capacity table furnished by U. S. Indian Irrigation Service.

Capacity table, (gage height, in feet, and contents, in acre-feet)
(Computed from project map furnished by U. S. Indian Irrigation Service)

21	0	45	1,100	70	17,370
25	6	50	2,490	75	24,290
30	39	55	4,800	80	32,690
35	165	60	7,810	85	42,690
40	458	65	11,890		

Contents, in acre-feet, 1938-40

1938-39		1939-40	
Oct. 1	12,670	Oct. 26	0
31	12,380	Dec. 6	0
Nov. 10	12,670	23	173
Dec. 1	13,650	Jan. 24	427
Jan. 1	14,130	Feb. 23	994
Feb. 1	14,460	Mar. 23	3,240
Mar. 25	20,660	Apr. 25	10,160
May 9	a32,690	May 24	12,580
18	a32,690	June 5	10,530
June 25	19,990	25	5,350
July 25	16,160	July 25	835
Sept. 8	0	Aug. 7	0
30	0	28	0
		Sept. 28	6

a No gage-height record; reservoir full with some water going over spillway as shown by gage-height graph of river station 500 feet downstream.

Owyhee River near Gold Creek, Nev.

Location.- Water-stage recorder, lat. 41°41'10", long. 115°51'30", in NW¼NW¼ sec. 25, T. 44 N., R. 54 E., 500 feet downstream from Wild Horse Dam and 8 miles west of Gold Creek. Altitude, 6,130 feet (from topographic map).

Drainage area.- 209 square miles.

Records available.- March 1916 to September 1925, October 1936 to September 1940.

Average discharge.- 11 years (1917-21, 1922-25, 1936-40) 39.7 second-feet.

Extremes.- Maximum daily discharge during year, 166 second-feet (regulated) May 31 (gage height, 3.23 feet); practically no flow at times when reservoir gates were closed.
1916-25, 1936-40: Maximum discharge, 1,810 second-feet May 5, 1922 (gage height, 10.11 feet, site and datum then in use), from rating curve extended above 400 second-feet; practically no flow at times when reservoir gates were closed.

Remarks.- Records good except those for period of no gage-height record, which are fair. Small diversions above station for irrigation. Flow regulated by Wild Horse Reservoir (see p. 125).

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

0.8	1	1.4	8	2.2	44	3.0	130
.9	1.5	1.6	14	2.4	61	3.3	177
1.0	2	1.8	21	2.6	80		
1.2	4.5	2.0	31	2.8	103		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a5	6	6					0	164	59	24	3
2	a7	6	6					0	164	52	23	3
3	a8	6	6					0	163	59	22	3
4	a7	6	6					0	163	59	20	3
5	6	6	6					0	161	59	26	3
6	6	6	7					0	161	58	24	3
7	6	6	3					0	161	58	10	3
8	6	6	0					0	161	58	5	3
9	6	6	0					0	135	73	4	2
10	6	5	0					0	0	93	4	0
11	5	5	0					0	0	93	4	0
12	5	6	0					0	62	92	4	0
13	5	6	0					0	161	91	4	0
14	5	6	0					0	161	90	4	0
15	5	6	0					0	159	89	3	0
16	5	6	0					0	159	88	4	0
17	5	5	0					0	158	88	3	0
18	5	5	0					0	158	87	3	0
19	5	5	0					0	156	87	3	0
20	5	5	0					0	156	86	3	0
21	5	5	0					0	155	86	3	0
22	5	6	0					0	153	84	3	0
23	5	6	0					0	153	84	3	0
24	5	5	0					0	151	82	3	0
25	5	6	0					21	151	80	4	7
26	5	6	0					49	150	75	4	14
27	6	6	0					81	148	72	3	12
28	6	6	0					80	110	69	3	9
29	6	6	0					80	60	66	3	7
30	6	6	0					118	60	39	3	6
31	6	-	0					166	-	24	3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	173	8	5	5.6	343
November	172	6	5	5.7	341
December	40	7	0	1.3	79
Calendar year 1939	20,393	693	0	55.9	40,440
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	595	166	0	19.2	1,180
June	4,054	164	0	135	8,040
July	2,280	93	24	73.5	4,520
August	232	26	3	7.5	460
September	81	14	0	2.7	161
Water year 1939-40	7,627	166	0	20.8	15,120

a No gage-height record; discharge computed on basis of records for station at Mountain City.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Owyhee River at Mountain City, Nev.

Location.- Water-stage recorder, lat. 41°50', long. 115°59', in SE¼ sec. 36, T. 46 N., R. 53 E., at Mountain City, 1 mile downstream from California Creek.

Drainage area.- 350 square miles.

Records available.- May to December 1913, November 1926 to September 1940.

Average discharge.- 14 years (1926-40), 87.3 second-feet.

Extremes.- Maximum discharge during year, 263 second-feet (regulated) June 4 (gage height, 2.88 feet); minimum daily, 1 second-foot (regulated) Sept. 12-19, 23, 24.
1913, 1926-40: Maximum discharge, 1,830 second-feet Apr. 20, 1936 (gage height, 7.6 feet), from rating curve extended above 600 second-feet; no flow July 29 to Sept. 15, 1931, July 21 to Sept. 18, 1934.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation. Flow regulated by Wild Horse Reservoir (see p. 125).

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	18	b16			93	157	156	200	80	35	a5
2	20	17	b15			82	139	154	202	68	34	a5
3	19	17	b14			70	128	161	210	74	34	a6
4	18	17	b14			64	119	167	234	76	33	a7
5	17	18	b15			64	114	159	228	74	27	a6
6	16	18	b17			52	105	144	210	72	39	a5
7	20	18	b18			54	103	128	204	72	31	5
8	18	18	b16			a85	107	119	192	71	17	5
9	16	18	b15			a90	110	119	190	71	12	6
10	15	18	b14			a80	117	119	77	103	12	5
11	14	19	b14			a70	117	123	39	105	9	3
12	14	18	b15			a65	124	128	33	103	8	1
13	14	16	15		b15	61	141	126	157	103	6	a1
14	13	b15	a13			*56	157	124	169	102	6	1
15	13	b14	a12	b13		58	174	115	169	102	a5	a1
16	13	b14	*12			66	156	108	169	100	a4	a1
17	12	b13	a12			77	139	98	171	100	a6	a1
18	12	b15	a12			70	132	91	169	100	a5	a1
19	12	b18	12			71	142	83	167	98	a5	1
20	12	b18	12			77	156	79	165	98	a5	2
21	12	b18	12			85	154	74	165	98	h5	2
22	13	b17	b11			90	150	68	163	98	a5	2
23	14	b16	b10			100	139	65	163	98	a5	1
24	14	b15	b11			112	132	65	161	96	a5	a1
25	14	b15	b11			132	132	71	161	96	a5	2
26	14	b18	b12		a30	161	157	88	161	96	a5	5
27	16	b19	b13		a70	214	165	130	159	95	a6	12
28	18	b17	b15		178	173	150	135	156	93	a6	12
29	19	b17	b18		135	154	161	137	82	90	a6	9
30	19	b17	b22		-	146	161	132	79	71	h7	9
31	18	-	b20		-	173	-	198	-	3[illegible]	a6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	472	20	12	15.2	936
November	506	19	13	16.9	1,000
December	438	22	10	14.1	869
Calendar year 1939	39,936	1,180	10	109	79,200
January	403	-	-	13.0	799
February	788	178	-	27.2	1,560
March	2,945	214	52	95.0	5,840
April	4,138	174	103	138	8,210
May	3,666	198	65	118	7,270
June	4,805	234	33	160	9,530
July	2,741	105	38	88.4	5,440
August	394	39	4	12.7	781
September	123	12	1	4.1	244
Water year 1939-40	21,419	234	1	58.5	42,480

*Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of record for station near Owyhee.
b Stage-discharge relation affected by ice.
h Computed from auxiliary-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

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

Location.- Water-stage recorder, lat. 41°55', long. 116°05', in NW¼ sec. 6, T. 46 N., R. 53 E., 1,000 feet downstream from Skull Creek, 1 mile upstream from China diversion dam, and 2½ miles southeast of Owyhee.

Drainage area.- 458 square miles.

Records available.- March 1939 to September 1940.

Extremes (regulated).- Maximum discharge during year, 365 second-feet Mar. 27 (gage height, 4.14 feet); minimum daily, 2 second-feet Sept. 15-18.
1939-40: Maximum discharge, 1,430 second-feet Mar. 25, 1939 (gage height, 6.76 feet, datum then in use), from rating curve extended above 240 second-feet; minimum daily, that of Sept. 15-18, 1940.

Remarks.- Records good except those for periods of no gage-height record or ice effect, which are fair. Diversions above station for irrigation. Flow regulated by Wild Horse Reservoir (see p. 125).

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a17	19	20	28		131	261	296	243	73	34	4
2	a24	18	19	31		118	224	293	239	68	32	4
3	a23	19	18	35		94	202	296	250	58	31	5
4	a22	19	19	32		85	186	298	276	63	30	8
5	a21	19	20	30		85	182	278	281	62	27	8
6	20	19	22			69	162	257	246	59	29	6
7	21	19	24			73	154	225	232	58	28	6
8	22	19	20			115	162	210	215	57	22	6
9	21	19	20			125	176	201	204	56	14	6
10	20	19	18			110	180	201	132	72	10	6
11	19	18	18			92	180	196	56	87	8	5
12	18	18	18		b20	75	189	201	44	87	7	4
13	18	20	18			74	217	199	119	86	6	3
14	18	19	18			*79	255	193	174	86	a7	3
15	17	18	17			77	291	182	178	87	a6	2
16	16	18	*17			89	268	168	180	87	a6	2
17	16	17	17			113	229	153	178	86	a6	2
18	16	19	17			104	218	143	176	87	a6	2
19	16	22	16	b18		106	236	128	172	87	a6	3
20	16	22	17			113	245	117	170	87	a6	4
21	a16	22	17			128	270	108	168	86	a6	4
22	a16	21	b15			138	263	98	166	84	a6	4
23	a17	20	b15			153	254	88	165	83	a6	3
24	a17	18	b15		b25	177	241	85	164	81	a6	3
25	17	19	b15		30	212	236	85	160	79	a6	4
26	17	22	b16		40	263	274	106	162	77	a6	3
27	18	22	18		84	337	296	140	158	77	a6	9
28	20	20	24		241	291	278	164	156	74	5	14
29	20	20	30		234	239	283	172	102	72	5	13
30	20	22	32		-	227	293	154	72	68	4	13
31	20	-	29		-	257	-	215	-	43	5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	579	24	16	18.7	1,150
November	586	22	17	19.5	1,160
December	599	32	15	19.3	1,190
Calendar year	-	-	-	-	-
January	624	-	-	20.1	1,240
February	1,114	241	-	38.4	2,210
March	4,349	337	73	140	8,630
April	6,905	296	154	230	13,700
May	5,650	298	85	182	11,210
June	5,238	281	44	175	10,390
July	2,317	87	43	74.7	4,600
August	382	34	4	12.3	758
September	159	14	2	5.3	315
Water year 1939-40	28,502	337	-	77.9	56,550

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Owyhee River above Owyhee Reservoir, Oreg.

Location.- Water-stage recorder, lat. 43°13', long. 117°30', in SE¼ sec. 18, T. 27 S., R. 43 E., 3 miles upstream from flow line of Owyhee Reservoir and 8 miles southwest of Watson. Altitude of gage, about 2,690 feet above mean sea level (levels by Bureau of Reclamation).
Drainage area.- 10,400 square miles.
Records available.- October 1930 to September 1940 in reports of Geological Survey. April 1929 to September 1936 in reports of Oregon State engineer.
Average discharge.- 11 years (1929-40), 738 second-feet.
Extremes.- Maximum discharge during year, not determined (occurred during period of no gage-height record, Feb. 27 to Apr. 16); minimum, 125 second-feet Aug. 30 (gage height, 3.64 feet).
1929-40: Maximum discharge, 16,000 second-feet Mar. 20, 1932, Apr. 19, 1936; maximum gage height, 12.95 feet Mar. 20, 1932; minimum discharge, 103 second-feet Aug. 19, 1932 (gage height, 3.57 feet).
Remarks.- Records excellent except those for period Feb. 27 to Apr. 16, which are fair. Diversions above station for irrigation. Flow slightly regulated by 11 small reservoirs which have a total capacity of 52,000 acre-feet.
Cooperation.- Water-stage recorder inspected and some discharge measurements furnished by Bureau of Reclamation.

Rating tables, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 28				Apr. 17 to Sept. 30			
3.8	168	4.9	555	3.6	117	5.2	720
4.0	219	5.2	730	3.8	161	5.5	905
4.2	309	5.5	930	4.0	213	5.9	1,180
4.	420	5.9	1,230	4.3	306	6.3	1,500
				4.6	417	6.8	1,950
				4.9	555		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	180	211	219	230	448			1,920	330	203	150	132
2	186	209	222	230	469			1,770	316	203	150	136
3	188	209	219	271	482			1,500	299	203	152	136
4	186	209	219	293	474			1,270	306	197	152	140
5	186	209	216	336	487			1,120	313	194	145	145
6	188	209	216	312	540			1,010	313	194	145	152
7	188	211	219	336	640			984	324	194	143	156
8	186	214	219	343	860			938	316	181	143	156
9	193	214	222	347	1,190		a2,080	905	338	176	143	159
10	196	214	219	354	909			840	378	168	140	164
11	196	211	219	326	743			768	390	174	140	161
12	198	211	216	333	662			702	367	163	140	164
13	206	211	216	326	712			646	345	156	140	166
14	203	211	216	316	652			616	320	152	138	164
15	203	211	219	303	555	a2,030		582	299	152	138	159
16	206	211	222	287	492			572	286	152	138	178
17	206	211	216	247	444		1,940	540	273	154	138	168
18	206	211	214	233	416		1,880	495	251	156	138	164
19	206	209	214	271	392		1,600	486	236	156	136	168
20	203	209	214	259	373		1,450	463	213	156	134	205
21	203	209	211	262	358		1,400	438	205	156	134	186
22	203	214	209	253	347		1,340	425	200	156	132	189
23	203	211	209	250	336		1,280	413	197	152	132	208
24	203	209	211	253	350		1,170	390	194	150	132	194
25	203	209	209	256	380		1,030	360	200	150	132	186
26	203	214	203	259	487		950	338	197	147	132	181
27	209	211	201	303	a2,100		944	352	191	145	132	178
28	209	211	196	560	a4,600		1,370	341	191	154	132	174
29	211	214	201	444	a6,400		1,560	330	197	154	132	174
30	209	219	222	432	-		1,840	313	197	154	134	174
31	209	-	225	428	-		-	303	-	150	134	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,175	211	180	199	12,250
November	6,336	219	209	211	12,570
December	6,653	225	196	215	13,200
Calendar year 1939	281,850	11,200	180	772	559,000
January	9,653	560	230	311	19,150
February	27,318	6,400	336	942	54,180
March	62,930	-	-	2,030	124,800
April	53,034	-	944	1,768	105,200
May	22,130	1,920	303	714	43,890
June	8,182	390	191	273	16,230
July	5,169	208	145	167	10,250
August	4,301	152	132	139	8,530
September	5,017	208	132	167	9,950
Water year 1939-40	216,898	6,400	132	593	430,200

a No gage-height record; discharge computed on basis of records for stations on Owyhee Reservoir at Owyhee Dam and Owyhee River below Owyhee Dam.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Owyhee Reservoir at Owyhee Dam, near Nyssa, Oreg.

Staff gage, lat. 43°38', long. 117°15', in sec. 20, T. 22 S., R. 45 E., at Owyhee Dam, 21 miles southwest of Nyssa. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Drainage area, 11,160 square miles. Records available, October 1932 to September 1940. Maximum contents observed during year, 1,122,000 acre-feet Apr. 30 to May 6 (elevation, 2,670.00 feet); minimum observed, 754,100 acre-feet Oct. 22 (elevation, 2,636.48 feet). Maximum contents observed during period 1932-40, 1,125,000 acre-feet June 11, 1936 (elevation, 2,670.27 feet); minimum observed since full capacity was attained on May 7, 1936, that of Oct. 22, 1939.

Reservoir is formed by concrete arch-gravity dam, completed in September 1932; storage began Oct. 16, 1932. Capacity, 1,120,000 acre-feet between elevations 2,367.5 feet (bottom of sluice gates) and 2,670 feet (top of spillway gate), and 715,000 acre-feet between elevations 2,590.2 feet (diversion tunnel) and 2,670 feet. Dead storage below elevation 2,367.5 feet negligible. Figures given herein are of contents above elevation 2,367.5 feet. The reservoir generally will not be drawn below elevation 2,590.2 feet. Water is released through diversion tunnel to South canal for irrigation of lands west of Snake River in the vicinity of Homedale, Idaho, and to North canal for irrigation of lands north and west of Owyhee River, and through sluice gates to river for Owyhee canal, which diverts about 18 miles downstream. Gage read once daily by employees of Bureau of Reclamation.

Monthly elevation and contents, water year October 1939 to September 1940

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	2,638.75	775,400	-
Oct. 31	2,636.76	756,900	-18,500
Nov. 30	2,637.89	767,300	+10,400
Dec. 31	2,639.30	780,600	+13,300
Calendar year 1939	-	-	-133,000
Jan. 31	2,641.17	798,600	+18,000
Feb. 29	2,646.52	852,100	+53,500
Mar. 31	2,661.00	1,012,000	+159,900
Apr. 30	2,670.00	1,122,000	+110,000
May 31	2,666.71	1,081,000	-41,000
June 30	2,662.21	1,026,000	-55,000
July 31	2,654.12	933,000	-93,000
Aug. 31	2,645.50	841,600	-91,400
Sept.30	2,642.16	808,300	-33,300
Water year 1939-40	-	-	+32,900

Owyhee River below Owyhee Dam, Oreg.

Location.- Water-stage recorder, lat. 43°39', long. 117°15', in sec. 17, T. 22 S., R. 45 E., three-quarters of a mile downstream from Owyhee Dam. Datum of gage is 2,343.67 feet above mean sea level (levels by Bureau of Reclamation).

Drainage area.- 11,160 square miles.

Records available.- February 1929 to September 1940.

Average discharge.- 11 years, 430 second-feet.

Extremes.- Maximum discharge during year, 1,560 second-feet May 2 (gage height, 4.45 feet); minimum, about 6.3 second-feet Oct. 25 to Apr. 11.
1929-40: Maximum discharge, 14,600 second-feet Mar. 21, 1932 (gage height, 12.79 feet); no flow for a few hours Aug. 8, 9, 1932, when temporary diversion tunnel above Owyhee Dam was closed.

Remarks.- Records good. Diversions above station for irrigation. Flow regulated by Owyhee Reservoir (see p. 130).

Cooperation.- Water-stage recorder inspected, estimates of flow during periods of no gage-height record, and some discharge measurements furnished by Bureau of Reclamation.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

-0.2	6	0.8	78	3.0	670
0	12	1.0	103	3.5	940
.2	21	1.5	187	4.0	1,240
.4	36	2.0	304		
.6	55	2.5	458		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10							680	241	209	197	147
2	10							1,160	241	209	197	147
3	10							1,150	218	209	214	147
4	10							634	205	209	205	96
5	10							254	205	209	197	12
6	10						6.3	233	205	209	199	12
7	10							135	205	193	179	12
8	87							142	205	183	174	12
9	114							218	205	183	176	12
10	114							218	205	183	166	12
11	114							216	205	201	155	12
12	114							216	205	225	161	12
13	113							236	205	234	168	102
14	113							253	205	234	168	147
15	51	6.3	6.3	6.3	6.3	6.3		253	205	234	168	147
16	10							234	205	234	174	147
17	10						14	220	207	234	179	147
18	10							222	207	234	179	74
19	10							222	207	220	179	11
20	10							218	209	214	168	11
21	10							218	209	214	159	11
22	10						98	227	209	214	159	11
23	10						127	184	209	214	159	11
24	6.3						125	31	209	214	159	11
25	6.3						125	236	209	214	159	11
26	6.3						125	241	209	214	163	95
27	6.3						125	241	209	214	163	145
28	6.3						125	241	209	207	150	145
29	6.3						125	241	209	197	145	145
30	6.3				-		337	241	209	197	154	60
31	6.3	-			-		-	241	-	197	152	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,020.4	114	6.3	32.9	2,020
November	189.0	-	-	6.3	375
December	195.3	-	-	6.3	387
Calendar year 1939	117,773.7	5,610	-	323	233,600
January	195.3	-	-	6.3	387
February	182.7	-	-	6.3	362
March	195.3	-	-	6.3	387
April	1,521.3	337	-	50.7	3,020
May	9,356	1,160	31	302	18,560
June	6,285	241	205	210	12,470
July	6,556	234	183	211	13,000
August	5,325	214	145	172	10,560
September	2,064	147	11	68.8	4,090
Water year 1939-40	33,085.3	1,160	-	90.4	65,620

Peak discharge.- May 2 (6 p.m.) 1,560 sec.-ft.
Note.- No gage-height record Oct. 1-7, 16-23, Oct. 25 to Apr. 21, Sept. 8-12, 21-25; discharge furnished by Bureau of Reclamation.

Boise River near Twin Springs, Idaho

Location.- Water-stage recorder, lat. 43°40', long. 115°44', in sec. 27, T. 4 N., R. 6 E., a quarter of a mile upstream from Birch Creek, 1½ miles upstream from flow line of Arrowrock Reservoir, 4 miles downstream from Twin Springs, and 13 miles upstream from Arrowrock.

Drainage area.- 830 square miles.

Records available.- March 1911 to September 1940.

Average discharge.- 29 years, 1,101 second-feet.

Extremes.- Maximum discharge during year, 5,210 second-feet May 12 (gage height, 5.89 feet); minimum, 160 second-feet Dec. 26 (gage height, 1.82 feet).
1911-40: Maximum discharge, 10,300 second-feet May 17, 1927 (gage height, 8.30 feet), from rating curve extended above 8,000 second-feet; minimum, 133 second-feet Dec. 15, 16, 1935 (gage height, 1.56 feet).

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

Rating table, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 18 to Sept. 30)

1.8	150	3.2	1,150	4.7	3,140
2.0	252	3.5	1,490	5.0	3,620
2.3	420	3.8	1,860	5.3	4,120
2.6	615	4.1	2,260	5.6	4,650
2.9	855	4.4	2,690	5.9	5,210

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	252	301	284	444	*356	1,200	3,540	2,080	3,540	821	351	226
2	312	295	284	*566	379	1,010	2,820	2,120	3,300	846	345	231
3	351	290	284	630	420	874	2,470	2,760	2,990	787	334	279
4	317	290	268	552	420	796	2,120	2,990	2,760	762	334	374
5	312	279	252	493	397	770	2,030	2,620	2,540	722	328	385
6	414	268	323	420	420	698	1,890	2,400	2,330	682	323	323
7	397	290	312	328	462	675	1,810	2,330	2,260	652	317	295
8	340	290	295	414	432	830	1,730	2,400	2,060	622	312	301
9	323	279	379	462	420	940	1,900	2,690	1,850	608	301	295
10	306	231	594	426	462	893	1,860	3,300	1,820	587	295	306
11	301	257	512	351	480	787	1,820	4,200	1,960	559	290	295
12	301	284	432	334	420	682	1,890	5,020	2,260	538	284	274
13	295	279	374	b310	385	645	2,260	4,830	2,540	512	279	334
14	290	274	*362	b290	480	645	2,820	4,380	2,620	500	274	385
15	290	263	356	b290	444	622	3,140	4,120	2,330	493	268	328
16	284	252	462	*b300	379	622	2,690	3,780	2,190	493	274	301
17	279	231	706	b340	426	660	2,470	3,700	2,110	486	263	323
18	279	226	566	b310	420	722	2,540	3,540	2,040	462	257	323
19	279	257	420	b280	379	778	2,760	3,540	1,990	456	252	385
20	279	257	426	b300	345	838	3,060	3,620	1,910	444	242	374
21	284	257	408	334	328	940	2,760	3,700	1,670	438	247	356
22	284	274	351	306	414	1,060	2,540	3,700	1,470	426	242	334
23	284	295	317	334	408	1,230	2,540	3,860	1,290	408	242	317
24	284	279	317	340	*397	1,370	2,470	4,120	1,180	403	242	312
25	306	268	268	334	414	1,860	2,400	4,200	1,110	397	263	306
26	312	301	180	351	519	2,690	2,540	4,120	1,070	403	257	312
27	301	317	b220	362	874	4,040	2,840	3,860	1,020	462	252	301
28	306	295	*b270	351	1,450	2,820	2,760	3,540	931	420	242	317
29	328	268	b330	334	1,590	2,260	2,540	3,300	864	391	242	385
30	317	268	397	345	-	2,110	2,260	3,460	830	379	242	391
31	306	-	403	345	-	3,460	-	3,620	-	362	231	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	9,513	414	252	307	0.370	0.43	18,870
November	8,215	317	226	274	.330	.37	16,290
December	11,352	706	180	366	.441	.51	22,520
Calendar year 1939	288,301	4,120	180	790	.952	12.93	571,800
January	11,576	630	280	373	.449	.52	22,960
February	14,720	1,590	328	508	.612	.66	29,200
March	39,527	4,040	622	1,275	1.54	1.78	78,400
April	73,270	3,540	1,730	2,442	2.94	3.28	145,300
May	107,900	5,020	2,080	3,481	4.19	4.83	214,000
June	58,835	3,540	830	1,961	2.36	2.63	116,700
July	16,521	846	362	533	.642	.74	32,770
August	8,625	351	251	278	.335	.39	17,110
September	9,668	391	226	322	.388	.43	19,180
Water year 1939-40	369,722	5,020	180	1,010	1.22	16.57	733,300

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geologic Survey

Arrowrock Reservoir at Arrowrock, Idaho

Location.- Graduations on upstream face of dam on Boise River, lat. 43°36', long. 115°55', in E½ sec. 13, T. 3 N., R. 4 E., at Arrowrock, 22 miles by road east of Boise. Datum of gage is at mean sea level (surveys of Bureau of Reclamation).

Drainage area.- 2,210 square miles.

Records available.- October 1917 to September 1940.

Extremes.- Maximum contents observed during year, 299,700 acre-feet June 1 (elevation, 3,218.6 feet); minimum observed, 11,260 acre-feet Nov. 1 (elevation, 3,035.0 feet). 1917-40: Maximum contents, 300,900 acre-feet May 4, 5, 1939 (elevation, 3,219.0 feet); no storage during period in each of several years when natural flow was passing through reservoir.

Remarks.- Reservoir is formed by gravity-section concrete-arch dam, completed in 1915 and raised 5 feet in 1937; storage began in 1915. Capacity, 291,600 acre-feet between elevation 2,956 feet (11 feet below center line of sluice gates, 8.5 feet below sill) and 3,216 feet (crest of movable spillway at highest position) above mean sea level. Dead storage negligible. Figures given herein represent total contents. Project officials state that total capacity of reservoir may have been reduced as much as 5,000 or 6,000 acre-feet by the deposition of silt. Water is used for irrigation of lands in Boise Valley.

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

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,960	11,260	24,890	36,570	82,480	115,600	262,500	290,400	299,700	259,600	160,700	48,610
2	11,890	12,750	23,840	38,270	83,750	120,400	275,300	289,400	299,500	256,200	157,300	46,400
3	12,260	14,210	22,760	40,530	85,400	124,700	284,400	289,000	299,400	252,600	153,500	44,700
4	12,580	15,620	21,730	42,870	87,050	128,300	288,800	290,700	299,400	249,200	149,800	42,960
5	13,250	17,010	20,630	44,800	88,860	131,600	289,700	292,500	299,000	245,800	146,200	41,970
6	14,140	18,320	19,520	46,500	90,540	134,600	288,200	292,700	298,600	242,400	142,200	42,510
7	15,220	19,470	18,650	48,000	92,460	136,800	287,800	292,400	298,300	239,300	138,200	43,410
8	15,910	20,680	17,680	49,050	94,380	139,000	288,000	291,900	298,100	235,900	133,800	44,200
9	16,280	21,890	16,660	50,480	95,760	142,000	288,400	292,200	297,800	232,500	129,700	44,300
10	16,620	23,160	16,110	52,130	96,520	145,000	289,100	292,800	297,300	229,100	125,500	44,300
11	16,880	24,180	15,990	54,120	97,370	147,800	290,700	294,200	297,200	225,800	121,100	44,200
12	17,060	25,380	15,740	55,560	96,050	150,000	291,900	296,400	297,200	222,100	117,200	44,100
13	17,230	26,510	15,100	56,880	97,880	151,400	293,300	297,800	297,500	218,500	112,900	44,000
14	17,410	27,820	14,140	58,200	97,710	152,700	294,400	297,800	297,800	214,800	108,800	44,300
15	17,540	29,050	13,250	59,400	97,710	154,300	295,300	298,000	297,800	211,000	105,400	44,500
16	17,720	30,180	12,260	60,580	97,540	155,400	295,300	297,500	297,800	207,500	102,000	44,700
17	17,660	31,400	14,640	61,820	97,200	156,700	294,500	297,500	297,500	203,900	98,560	44,900
18	17,950	32,350	17,100	63,320	97,030	159,400	294,100	297,200	296,700	201,000	95,340	45,000
19	18,020	33,410	19,080	64,740	96,690	162,600	293,500	296,900	295,900	198,100	92,300	45,200
20	18,140	34,420	20,730	65,920	96,350	165,700	293,800	297,200	294,700	195,200	89,100	46,100
21	18,770	34,500	22,270	67,480	95,670	169,100	292,500	297,300	292,800	192,400	86,000	47,200
22	19,470	34,030	23,720	68,580	95,180	172,900	291,500	297,500	290,700	189,700	82,850	48,100
23	20,170	32,950	25,070	69,820	94,860	177,200	289,400	298,100	288,200	186,700	79,580	49,050
24	20,990	32,060	26,320	71,120	95,100	182,100	290,000	298,600	285,500	183,900	76,640	49,930
25	20,480	31,110	27,560	72,350	95,340	187,600	290,700	298,700	282,500	180,600	73,280	50,480
26	19,820	30,180	28,570	73,840	95,840	195,700	290,500	298,700	279,200	177,300	69,880	49,820
27	18,750	29,260	29,540	75,380	97,370	207,500	291,600	299,000	275,300	174,400	66,370	48,400
28	17,230	28,090	30,750	76,990	102,600	221,800	292,800	299,000	271,200	172,000	62,860	46,900
29	15,300	27,100	31,980	78,180	109,500	231,200	292,700	299,000	267,700	169,500	59,160	45,400
30	14,210	26,060	33,330	79,580	-	239,300	291,900	299,400	263,400	167,000	55,560	44,200
31	12,400	-	34,970	81,050	-	247,800	-	299,500	-	163,800	52,020	-

Monthly elevation and contents, water year October 1939 to September 1940

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	3,047.0	15,620	-
Oct. 31	3,038.4	12,400	-3,220
Nov. 30	3,067.5	26,060	+13,660
Dec. 31	3,080.0	34,970	+8,910
Calendar year 1939	-	-	-96,830
Jan. 31	3,120.7	81,050	+46,080
Feb. 29	3,138.25	109,500	+28,450
Mar. 31	3,201.0	247,800	+138,300
Apr. 30	3,216.1	291,900	+44,100
May 31	3,218.55	299,500	+7,600
June 30	3,206.5	263,400	-36,100
July 31	3,166.1	163,800	-99,600
Aug. 31	3,098.2	52,020	-111,780
Sept.30	3,090.7	44,200	-7,820
Water year 1939-40	-	-	+28,580

Boise River at Dowling Ranch, near Arrowrock, Idaho

Location.- Water-stage recorder, lat. 43°35', long. 115°58', in sec. 15, T. 3 N., R. 4 E., at Dowling Ranch, three-quarters of a mile upstream from Moore Creek and 4 miles downstream from Arrowrock.

Drainge area.- 2,220 square miles.

Records available.- March 1911 to September 1940.

Average discharge.- 29 years, 2,202 second-feet.

Extremes.- Maximum discharge during year, 9,260 second-feet May 13 (gage height, 7.40 feet); minimum, 3 second-feet Nov. 18 (gage height, 0.79 foot).
1911-40: Maximum discharge, 17,600 second-feet May 11, 1928 (gage height, 9.55 feet); minimum, 2 second-feet Nov. 19-27, 1935, Feb. 1-10, Oct. 30 to Nov. 5, Nov. 9, 27, 1936, Jan. 24, 1939; minimum gage height, 0.62 foot Nov. 21, 22, 1935.

Remarks.- Records good except those below 20 second-feet, which are fair. Flow regulated by Arrowrock Reservoir (see p. 133). No diversion above station.

Cooperation.- Gage-height record furnished by Bureau of Reclamation. Results of five discharge measurements furnished by watermaster for Boise River.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,410	513	1,120	6	5	25	20	4,880	6,450	3,260	2,340	1,780
2	528	8	1,120	7	5	24	396	4,660	6,060	3,260	2,420	1,470
3	516	5	1,090	8	6	20	1,850	4,660	5,570	3,170	2,490	1,300
4	447	4	1,100	8	7	18	3,350	4,770	5,340	3,080	2,490	1,300
5	322	4	1,100	6	6	104	4,660	4,990	4,990	3,080	2,490	714
6	290	4	1,110	6	8	290	4,440	4,990	4,550	2,990	2,570	194
7	340	4	1,120	5	8	385	3,630	4,880	4,340	2,900	2,570	174
8	528	4	1,120	5	91	400	3,640	4,770	4,030	2,820	2,650	410
9	480	4	1,120	6	344	298	3,640	4,990	3,730	2,820	2,570	654
10	474	4	1,120	6	566	302	3,260	5,570	3,540	2,820	2,570	654
11	498	a4	1,110	5	640	366	3,080	6,580	3,540	2,820	2,490	640
12	516	a4	1,120	5	774	474	3,170	8,090	3,730	2,820	2,570	626
13	492	4	1,120	4	915	586	3,930	8,960	4,030	2,740	2,570	626
14	492	4	1,110	4	951	626	5,100	8,380	4,240	2,820	2,340	612
15	492	4	1,130	5	951	626	5,940	8,090	3,930	2,740	2,120	592
16	510	4	469	4	942	626	5,820	7,530	3,830	2,650	2,050	572
17	528	4	8	5	933	280	5,340	7,250	3,830	2,420	2,050	546
18	528	4	6	4	933	9	5,450	6,840	3,830	2,260	1,980	640
19	522	4	5	4	933	8	5,940	6,580	3,830	2,260	1,980	390
20	417	289	6	4	933	8	6,450	6,710	3,830	2,190	1,980	254
21	236	654	5	4	933	8	6,450	6,710	3,830	2,190	2,050	226
22	240	942	5	4	933	8	6,190	6,710	3,730	2,190	1,980	215
23	240	1,060	5	4	856	8	5,340	6,840	3,640	2,190	1,910	215
24	562	1,070	5	4	750	8	4,880	7,250	3,640	2,340	1,980	218
25	647	1,060	4	5	750	48	5,100	7,530	3,540	2,340	2,190	669
26	1,040	1,050	4	6	735	64	5,220	7,250	3,640	2,190	2,190	1,170
27	1,220	1,110	4	6	403	12	5,340	6,980	3,730	2,120	2,190	1,360
28	1,410	1,140	4	6	29	10	5,570	6,580	3,640	2,050	2,190	1,360
29	1,360	1,130	4	5	29	10	5,450	6,060	3,540	2,050	2,190	1,360
30	1,260	1,110	5	5	-	10	5,340	6,060	3,540	2,120	2,190	1,300
31	1,140	-	5	5	-	16	-	6,320	-	2,260	2,120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	19,885	1,410	236	641	39,440
November	11,205	1,140	4	374	22,200
December	17,254	1,130	4	557	34,220
Calendar year 1939	632,018	7,250	4	1,732	1,254,000
January	161	8	4	5.2	319
February	15,369	951	5	530	30,480
March	5,677	626	8	183	11,260
April	134,186	6,450	20	4,473	266,200
May	198,460	8,960	4,660	6,402	393,600
June	123,690	6,450	3,540	4,123	245,300
July	79,960	3,260	2,050	2,579	158,600
August	70,470	2,650	1,910	2,273	139,800
September	22,261	1,780	174	742	44,150
Water year 1939-40	698,578	8,960	4	1,909	1,386,000

a No gage-height record; discharge interpolated.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Boise River at Boise, Idaho

Location.- Water-stage recorder, lat. 43°36'00", long. 116°11'30", in NW¼NW¼ sec. 14, T. 3 N., R. 2 E., in Boise, 700 feet upstream from Broadway Bridge.

Records available.- February to September 1940.

Extremes.- Maximum discharge during period, 6,620 second-feet May 14 (gage height, 6.76 feet); minimum, 10 second-feet Mar. 17 (gage height, 2.27 feet).

Remarks.- Records good. Flow regulated by Arrowrock Reservoir. New York, Ridenbaugh, and several smaller canals divert water between Moore Creek and this station.

Rating tables, Feb. 27 to Sept. 30 (gage height, in feet, and discharge, in second-feet)

Feb. 27 to May 14						May 15 to Sept. 30			
2.2	5	3.3	400	5.2	2,840	2.3	50	4.6	1,750
2.4	23	3.6	620	5.6	3,710	2.6	125	5.0	2,450
2.6	65	4.0	1,000	6.0	4,680	3.0	280	5.4	3,260
2.8	130	4.4	1,460	6.4	5,700	3.4	520	5.8	4,180
3.0	220	4.8	2,080	6.8	6,760	3.8	820	6.2	5,180
						4.2	1,210	6.6	6,220

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	h46	746	2,840	3,710	973	611	611
2					-	31	533	2,450	3,600	901	625	548
3					-	25	1,540	2,450	3,050	937	660	270
4					-	23	2,840	2,430	2,640	919	676	305
5					-	22	4,300	2,540	2,300	955	660	255
6					-	18	4,680	2,540	1,740	874	660	226
7					-	17	4,060	2,340	1,360	829	668	183
8					-	17	3,820	2,120	1,100	812	653	166
9					-	15	3,940	2,150	991	716	639	162
10					-	15	3,710	2,540	1,100	676	618	169
11					-	15	3,050	3,370	1,330	708	611	152
12					-	14	2,840	4,680	1,470	676	583	125
13					-	14	3,370	6,220	1,470	668	611	131
14					-	13	4,560	6,220	1,470	684	611	143
15					-	11	5,440	5,700	1,430	724	354	140
16					-	10	5,570	5,310	1,430	668	315	158
17					-	104	5,060	4,800	1,450	646	310	152
18					-	456	4,680	4,560	1,430	625	295	278
19					-	477	4,560	4,300	1,370	590	305	308
20					-	519	4,800	4,180	1,340	576	342	152
21					-	556	4,680	4,180	1,290	583	354	116
22					-	572	4,180	4,180	1,260	597	378	90
23					-	369	3,480	4,060	1,190	625	348	62
24					-	39	2,640	4,680	1,130	618	360	66
25					-	27	2,540	4,800	1,070	646	555	64
26					-	43	2,640	4,800	1,070	639	646	143
27					h30	860	2,740	4,560	1,140	583	639	235
28					h37	505	3,050	4,180	1,110	541	668	290
29					h210	89	3,370	3,600	1,040	534	668	336
30					-	25	3,160	3,260	1,050	527	684	320
31					-	181	-	3,600	-	548	676	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
March	5,128	860	10	165	10,170
April	106,579	5,570	533	3,553	211,400
May	119,640	6,220	2,120	3,859	237,300
June	47,131	3,710	991	1,571	93,480
July	21,598	973	527	697	42,840
August	16,783	684	295	541	33,290
September	6,356	611	62	212	12,610
The period	-	-	-	-	641,100

h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Boise River at Strawberry Glen Bridge, near Boise, Idaho

Location.- Wire-weight gage, lat. 43°40', long. 116°17', in NE¼ sec. 25, T. 4 N., R. 1 E., at Strawberry Glen Bridge, 5 miles northwest of post office at Boise. Datum of gage is 2,574.19 feet above mean sea level (Corps of Engineers, U. S. Army, datum--Boise River Surveys), gage readings have been reduced to elevations above mean sea level.

Records available.- March 1938 to September 1940 (discontinued).

Extremes.- Maximum discharge observed during year, 6,350 second-feet Apr. 15 (elevation, 2,605.99 feet); minimum observed, 19 second-feet Dec. 3 (elevation, 2,601.14 feet). 1938-40: Maximum discharge observed, 13,000 second-feet May 2, 1938 (elevation, 2,607.46 feet); minimum observed, that of Dec. 3, 1939; minimum elevation, 2,600.09 feet Apr. 2, 1938.

Remarks.- Records fair. Gage read twice daily. Flow regulated by Arrowrock Reservoir (see p. 133). Many diversions above station for irrigation.

Rating tables, water year 1939-40 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 17 to May 14)

Oct. 1 to Mar. 16				Mar. 17 to Sept. 30			
2,601.1	15	2,601.2	23	2,602.7	538	2,604.6	3,200
2,601.3	35	2,601.5	57	2,603.0	796	2,605.0	4,030
2,601.5	59	2,601.8	118	2,603.4	1,220	2,605.4	4,920
2,601.7	97	2,602.1	209	2,603.8	1,760	2,605.8	5,860
2,602.0	179	2,602.4	343	2,064.2	2,440	2,606.0	6,350
2,602.3	489						
2,602.6	418						

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	196	34	24	148	119	104	d850	d2,600	d3,300	750	384	466
2	289	114	22	213	121	74	d600	d2,100	d3,200	578	389	434
3	167	69	19	270	134	64	d1,600	2,260	d2,700	617	466	169
4	176	61	22	d190	151	54	2,810	2,180	2,000	617	502	157
5	176	64	21	d80	167	54	4,470	2,180	1,840	703	466	129
6	84	68	21	d30	179	47	4,920	2,090	1,400	578	466	90
7	84	62	22	d50	154	51	4,030	2,000	1,110	538	502	67
8	352	61	22	140	59	54	4,030	d1,800	896	502	466	57
9	352	59	22	99	49	45	d4,000	d1,800	660	502	466	44
10	310	58	22	179	51	52	3,610	d2,000	703	434	502	49
11	289	59	24	93	47	45	3,400	d3,200	d900	434	466	47
12	310	55	22	93	39	42	3,200	d4,500	d1,000	401	466	40
13	310	58	23	93	37	49	d3,600	5,860	1,000	401	466	41
14	289	58	22	82	42	51	d5,000	d5,800	1,000	434	466	49
15	250	58	22	97	44	52	6,100	4,920	1,060	502	206	49
16	250	55	22	129	44	49	d5,860	4,690	948	466	145	94
17	250	52	151	111	44	d150	d5,000	4,470	896	434	140	225
18	250	52	196	111	44	d500	4,470	4,250	1,110	401	134	140
19	250	52	196	82	33	538	4,470	4,030	948	378	134	78
20	270	50	151	121	39	617	4,920	3,610	896	378	134	126
21	270	38	134	116	40	d650	5,150	3,610	846	378	185	44
22	270	29	109	116	39	d650	d4,250	d3,700	750	401	237	52
23	250	28	109	111	37	d450	d3,500	d3,700	796	434	225	35
24	250	24	104	116	36	d100	2,720	d4,200	750	395	225	33
25	250	20	114	114	37	78	2,530	4,250	750	466	339	29
26	58	21	82	137	42	d100	2,350	4,250	703	466	502	54
27	37	24	86	157	d70	d1,000	d2,500	3,820	796	434	436	163
28	34	21	86	148	d80	617	d2,700	3,400	750	389	436	252
29	34	22	97	137	d250	182	2,810	3,200	750	389	502	323
30	32	22	129	129	-	d74	2,720	d3,000	750	378	538	328
31	34	-	143	109	-	d250	-	3,000	-	384	502	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,423	352	32	207	12,740
November	1,448	114	20	48.3	2,870
December	2,239	196	19	72.2	4,440
Calendar year 1939	203,696	5,300	19	558	404,000
January	3,801	270	30	123	7,540
February	2,228	250	33	76.8	4,420
March	6,843	1,000	42	221	13,570
April	108,170	6,100	600	3,606	214,600
May	106,470	5,860	1,800	3,435	211,200
June	35,208	3,300	660	1,174	69,830
July	14,562	750	378	470	28,880
August	11,623	538	134	375	23,050
September	3,864	466	29	129	7,660
Water year 1939-40	302,879	6,100	19	828	600,800

d Computed on basis of records for nearby stations because of effect of regulation or questionable gage heights.

Boise River at Notus, Idaho

Location.- Water-stage recorder, lat. 43°43', long. 116°48', in SE¼ sec. 34, T. 5 N., R. 4 W., 360 yards upstream from steel highway bridge, a quarter of a mile southeast of Notus, and 7 miles northwest of Caldwell. Datum of gage is 2,288.55 feet above mean sea level (Corps of Engineers, U. S. Army, datum--Boise River Surveys); gage readings have been reduced to elevations above mean sea level.

Records available.- April 1920 to September 1940.

Average discharge.- 18 years (1900-22, 1924-40), 1,055 second-feet.

Extremes.- Maximum discharge during year, 5,980 second-feet Apr. 16 (elevation, 2,295.00 feet); minimum, 18 second-feet Aug. 4 (elevation, 2,288.65 feet).
1920-40: Maximum discharge observed, 14,500 second-feet May 19, 20, 1921; maximum elevation, 2,297.67 feet May 3, 1938; minimum discharge, 10 second-feet Aug. 18, 1920.

Remarks.- Records good. Station is below all large diversions for irrigation in Boise Valley. Many diversions above station. Flow regulated by Arrowrock Reservoir (see p. 133).

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	525	430	545	530	708	1,010	2,160	2,100	35	21	27
2	168	525	430	605	525	615	1,210	1,660	2,230	47	20	27
3	265	590	426	650	535	605	1,300	1,400	1,900	28	20	24
4	220	570	417	719	545	545	2,660	1,330	1,410	28	18	41
5	223	565	417	620	560	520	4,240	1,270	1,220	31	19	80
6	226	560	417	489	575	502	5,410	1,330	884	31	19	76
7	200	555	417	458	545	489	4,860	996	590	33	20	72
8	178	545	417	476	555	507	4,330	724	378	35	20	79
9	244	540	430	575	458	507	4,500	545	235	34	20	80
10	190	530	430	590	453	480	4,500	575	165	35	20	75
11	190	525	412	550	458	484	3,820	938	131	34	20	84
12	175	520	394	480	435	471	3,500	2,230	109	32	20	104
13	165	525	399	466	435	462	3,420	3,990	76	28	20	92
14	129	520	399	498	480	453	4,500	4,680	111	24	20	220
15	121	516	399	502	480	448	5,600	3,900	70	24	20	250
16	101	516	399	480	466	448	5,980	3,740	65	20	20	274
17	96	512	399	484	458	435	5,600	3,180	43	23	23	280
18	87	507	502	489	480	516	4,860	2,960	34	24	23	292
19	90	507	550	408	471	821	4,680	2,800	38	24	23	408
20	95	502	545	507	458	871	4,500	2,510	28	24	22	525
21	93	502	520	494	444	910	4,860	2,510	25	22	23	426
22	121	484	516	498	448	938	4,240	2,440	25	20	21	346
23	96	466	498	498	466	945	3,580	2,370	25	19	22	280
24	120	458	484	502	466	686	2,100	2,730	30	20	26	226
25	217	453	471	498	476	489	1,500	3,030	26	19	26	215
26	520	453	440	512	555	489	1,440	3,340	24	22	24	190
27	570	453	448	590	625	686	1,440	3,100	24	21	21	148
28	560	444	453	595	675	1,440	1,550	2,880	21	24	23	133
29	530	440	466	565	635	815	2,440	2,440	24	24	23	277
30	520	435	480	550	-	615	2,440	1,840	26	20	24	404
31	520	-	507	535	-	635	-	1,900	-	21	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,105	570	75	229	14,090
November	15,243	590	435	508	30,230
December	13,912	550	394	449	27,590
Calendar year 1939	180,841	5,730	17	495	358,700
January	16,428	719	408	530	32,580
February	14,692	675	435	507	29,140
March	19,535	1,440	435	630	38,750
April	106,070	5,980	1,010	3,536	210,400
May	71,498	4,680	545	2,306	141,800
June	12,067	2,230	21	402	23,930
July	826	47	19	26.6	1,640
August	666	26	18	21.5	1,320
September	5,755	525	24	192	11,410
Water year 1939-40	283,797	5,980	18	775	562,900

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Diversions from Boise River, Idaho

Twenty-seven principal canals and several small farm laterals divert water from Boise River for irrigation below mouth of Moore Creek and between gaging stations at Dowling Ranch and Notus. Records for years 1919-40 are available; record of daily diversions after 1915 on file in office of Idaho Commissioner of Reclamation.

Daily gage heights collected, frequent discharge measurements made, and records summarized under direction of W. E. Welsh, watermaster for Boise River.

Total amount of water, in acre-feet, diverted by each canal during irrigation season of 1940

Canal	Diversion
Main canal of U. S. Bureau of Reclamation	562,440
Penitentiary	1,730
Ridenbaugh	147,430
Bubb	3,890
Consumers (Cruzen)	6,770
Boise City No. 1	9,040
Settlers	40,190
Thurman Mill	9,550
Farmers Union (includes Boise Valley diversion)	45,530
New Union (Little Union)	3,870
New Dry Creek (Dry Creek)	14,380
Ballantine	3,530
Eagle Island canals (7)	10,170
Middleton Water Co	33,340
Middleton Mill ditch	15,510
Phyllis	91,840
Eureka No. 1	7,510
Pioneer (Little Pioneer)	6,990
Canyon County	17,730
Caldwell high-line	20,800
Riverside No. 2	46,740
Farmers Cooperative	68,630
Canyon (Campbell)	3,790
Seibenberg	2,840
Pioneer Dixie	12,080
Eureka No. 2	15,290
Upper Center Point	3,510
Lower Center Point	4,560
Miscellaneous	6,800
Total	1,216,460

Combined monthly discharge of canals diverting from Boise River, Idaho, 1940

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
April	4,941	713	2,267	134,900
May	5,957	4,510	5,534	340,200
June	5,652	4,372	4,867	289,600
July	4,337	2,662	3,262	200,600
August	3,251	2,413	2,813	173,000
September	2,216	720	1,313	78,140
The period	-	-	-	1,216,000

Cottonwood Creek at Arrowrock Reservoir, Idaho
(Previously published as Cottonwood Creek near Arrowrock Reservoir, Idaho)

Location.- Water-stage recorder and broad-crested wooden control with trapezoidal notch for low stages, lat. 43°38', long. 115°49', in NW¼NE¼ sec. 2, T. 3 N., R. 5 E., at flow line of Arrowrock Reservoir, just downstream from unnamed tributary, three-quarters of a mile downstream from Ranger Creek and Cottonwood ranger station, and 5½ miles northeast of Arrowrock.

Drainage area.- 21.4 square miles.

Records available.- January 1939 to September 1940.

Extremes.- Maximum discharge during year, 96 second-feet Mar. 26 (gage height, 3.47 feet), from rating curve extended above 60 second-feet; minimum, 0.21 second-foot Aug. 23 (gage height, 1.96 feet).
1939-40: Maximum discharge, that of Mar. 26, 1940; minimum, that of Aug. 23, 1940.

Remarks.- Records good except those for periods of ice effect and no gage-height record, which are fair. One small diversion above station for irrigation. Station is operated in connection with a study of silt movement in the Boise River Basin.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	2.2	2.4	5.2	4.0	37	62	26	10	2.0	0.48	0.32
2	1.5	2.1	2.4	8.0	4.0	32	57	26	9.6	2.1	.53	.32
3	2.3	2.1	2.3	7.3	4.6	27	51	27	9.3	1.8	.53	.35
4	1.9	2.1	2.3	6.0	4.9	25	48	26	10	2.7	.53	.57
5	1.8	2.1	2.3	*5.2	4.6	23	48	24	9.3	2.0	.53	.89
6	3.2	2.0	3.5	3.8	8.0	20	46	22	8.3	1.8	.53	.83
7	2.3	2.0	2.9	3.6	7.0	19	46	23	8.6	1.6	.48	.83
8	1.9	2.1	2.9	4.4	6.0	22	45	23	8.6	1.4	.36	.78
9	1.8	2.0	4.2	4.9	6.0	21	47	24	7.7	1.3	.32	.78
10	1.8	1.9	4.4	4.9	7.6	20	45	26	7.4	1.3	.32	.83
11	1.8	2.1	4.9	4.4	8.0	18	43	26	6.9	1.2	.32	.73
12	1.7	2.2	3.6	4.4	6.7	16	44	26	6.6	1.1	.32	.73
13	1.7	2.1	3.5	3.4	6.7	14	47	26	6.6	1.0	.32	1.1
14	1.6	2.0	*3.0	4.2	7.0	14	53	24	6.5	.89	.32	1.3
15	1.6	2.0	3.2	3.4	6.7	14	49	24	6.0	.83	a.32	1.2
16	1.6	2.1	4.0	3.6	5.7	14	45	22	5.0	.83	.32	1.1
17	1.7	2.0	5.2	4.0	6.3	16	40	21	4.3	.78	.32	1.1
18	1.8	2.2	3.8	3.6	6.0	18	39	20	4.2	a.70	.32	a1.1
19	1.8	2.2	3.2	3.4	5.7	19	40	18	3.5	a.60	.32	1.1
20	1.8	2.2	3.6	b3.7	5.2	20	40	18	3.4	a.55	.28	1.4
21	1.8	2.2	3.4	3.6	5.2	22	35	17	3.4	a.50	.28	1.6
22	1.8	2.3	2.4	*3.5	6.3	23	33	16	3.2	a.45	.28	1.8
23	1.8	2.3	2.9	3.4	6.3	24	31	16	2.9	a.40	.25	1.7
24	1.8	2.3	2.9	3.4	6.0	26	30	15	2.1	a.40	.28	1.8
25	2.0	2.3	1.7	3.4	7.6	3e	29	14	2.1	a.45	.25	1.9
26	2.0	2.3	b2.3	4.2	12	51	32	14	1.9	.48	.25	1.7
27	2.0	2.4	3.0	4.2	26	68	37	12	1.6	.62	.28	1.6
28	2.1	2.3	*2.5	4.0	47	48	32	12	1.9	.62	.28	1.7
29	2.2	2.3	2.7	4.0	46	42	30	12	1.9	.57	.32	2.3
30	2.2	2.4	3.0	4.0	-	43	27	11	1.8	.48	.32	2.4
31	2.1	-	3.6	4.0	-	57	-	10	-	.53	.32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	58.2	3.2	1.1	1.88	0.088	0.10	115
November	64.8	2.4	1.9	2.16	.101	.11	129
December	98.0	5.2	1.7	3.16	.148	.17	194
Calendar year	-	-	-	-	-	-	-
January	133.1	8.0	3.4	4.29	.200	.23	264
February	282.1	47	4.0	9.73	.455	.49	560
March	851	68	14	27.5	1.29	1.49	1,690
April	1,251	62	27	41.7	1.95	2.18	2,480
May	621	27	10	20.0	.935	1.08	1,230
June	160.9	10	1.8	5.36	.250	.28	319
July	31.98	2.7	.40	1.03	.048	.06	63
August	10.87	.53	.25	.351	.016	.02	22
September	35.86	2.4	.32	1.20	.056	.06	71
Water year 1939-40	3,598.81	68	.25	9.83	.459	6.27	7,140

*Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated or computed on basis of partial gage-height record, weather records, and records for nearby stations.
b Stage-discharge relation affected by ice.
Note.- Stage-discharge relation affected by backwater from Arrowrock Reservoir May 23 to June 17 discharge computed on basis of staff-gage readings at auxiliary staff gage 140 feet above gage house.

South Fork of Boise River near Lenox, Idaho

Location.- Water-stage recorder, lat. 43°30', long. 115°41', in sec. 24, T. 2 N., R. 6 E., 1½ miles upstream from Smith Creek, 4 miles upstream from flow line of Arrowrock Reservoir, 4 miles west of discontinued Lenox post office, 13 miles upstream from mouth, and 17 miles upstream from Arrowrock Dam.

Drainage area.- 1,090 square miles.

Records available.- March 1911 to September 1940.

Average discharge.- 29 years, 952 second-feet.

Extremes.- Maximum discharge during year, 4,190 second-feet May 13 (gage height, 6.84 feet); minimum, 161 second-feet Aug. 31 to Sept. 2 (gage height, 1.88 feet).
1911-40: Maximum discharge, 9,200 second-feet May 15, 1917 (gage height, 9.53 feet), from rating curve extended above 6,500 second-feet; minimum, 111 second-feet Aug. 10, 1934; minimum gage height, 1.68 feet Sept. 5-7, 1931.

Remarks.- Records good except those for period of ice effect, which are fair. Some water stored in Little Camas Reservoir and diverted for irrigation of about 5,000 acres of land in vicinity of Mountain Home.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	216	272	255	326	259	666	2,700	1,880	2,700	562	245	161
2	229	269	262	368	279	592	2,170	1,830	2,590	572	239	161
3	255	269	262	416	297	553	1,930	2,170	2,480	548	229	169
4	272	269	259	383	341	511	1,740	2,480	2,270	525	232	223
5	265	265	248	345	311	493	1,780	2,380	2,170	506	223	262
6	276	259	252	286	315	484	1,700	2,170	1,930	475	210	269
7	308	259	301	219	334	466	1,600	2,070	1,780	445	210	245
8	297	262	276	242	315	529	1,560	2,070	1,700	424	207	242
9	276	262	286	337	283	582	1,700	2,270	1,560	416	186	248
10	265	255	395	345	319	567	1,700	2,590	1,440	395	183	242
11	262	239	395	297	337	525	1,560	3,180	1,440	375	180	232
12	259	255	352	259	297	471	1,650	3,880	1,480	364	177	235
13	252	262	293	239	255	441	1,980	4,190	1,600	348	175	262
14	252	265	293	b230	286	445	2,480	3,880	1,650	334	175	279
15	252	252	290	b230	330	471	2,700	3,590	1,560	330	166	286
16	248	242	308	b240	293	484	2,480	3,320	1,440	326	163	259
17	245	232	337	b280	290	516	2,170	3,180	1,360	326	166	248
18	242	219	345	b260	304	567	2,270	3,060	1,280	319	169	255
19	242	229	290	b230	290	631	2,480	2,940	1,210	308	180	304
20	242	248	252	b250	252	687	2,820	2,940	1,140	290	183	348
21	242	248	301	b280	232	772	2,700	3,060	1,040	279	180	326
22	242	245	269	b260	269	857	2,480	2,940	946	276	180	315
23	245	259	232	276	308	977	2,480	3,060	857	269	177	290
24	245	265	245	297	322	1,140	2,380	3,180	817	262	177	272
25	245	259	239	301	319	1,400	2,380	3,180	756	259	169	265
26	248	259	195	304	375	2,070	2,380	3,180	697	255	172	259
27	252	283	186	304	525	2,700	2,820	3,060	661	262	177	255
28	255	279	213	297	692	2,070	2,590	2,820	636	279	177	252
29	269	262	252	276	740	1,700	2,270	2,700	601	276	177	272
30	272	252	319	265	-	1,560	2,070	2,590	572	262	172	301
31	272	-	326	265	-	2,270	-	2,700	-	255	163	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	7,942	308	216	256	0.235	0.27	15,750
November	7,695	283	219	256	.235	.26	15,260
December	8,728	395	186	282	.259	.30	17,310
Calendar year 1939	254,025	3,180	166	696	.639	8.67	503,900
January	8,907	416	219	287	.263	.30	17,670
February	9,769	740	232	337	.309	.33	19,380
March	28,197	2,700	441	910	.835	.96	55,930
April	65,720	2,820	1,560	2,191	2.01	2.24	130,400
May	88,540	4,190	1,830	2,856	2.62	3.02	175,600
June	42,363	2,700	572	1,412	1.30	1.45	84,030
July	11,122	572	255	359	.329	.38	22,060
August	5,819	245	163	188	.172	.20	11,540
September	7,739	348	161	258	.237	.26	15,350
Water year 1939-40	292,539	4,190	161	799	.733	9.97	580,300

b Stage-discharge relation affected by ice.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Grouse Creek near Arrowrock, Idaho

Location.- Water-stage recorder and broad-crested wooden control with rectangular flume for low flow, lat. 43°35', long. 115°55', in sec. 19, T. 3 N., R. 5 E., at Sanders Ranch, at flow line of Arrowrock Reservoir, just upstream from Little Grouse Creek and 1¼ miles southeast of Arrowrock.

Drainage area.- 8.0 square miles.

Records available.- January 1939 to September 1940.

Extremes.- Maximum daily discharge during year, 39 second-feet Feb. 29; maximum gage height, 2.64 feet Mar. 2; minimum discharge, 0.17 second-foot for several days; minimum gage height, 1.05 feet Aug. 18-21.
1939-40: Maximum discharge recorded, about 89 second-feet Mar. 23, 1939 (gage height, 2.66 feet); minimum discharge, 0.15 second-foot Aug. 9, 1939; minimum gage height, that of Aug. 18-21, 1940.

Remarks.- Records good except those for Feb. 27 to Mar. 2, which are fair. No diversion or regulation. Station operated in connection with a study of silt movement in the Boise River Basin.

Rating table, Oct. 1 to Feb. 26 (gage height, in feet, and discharge, in second-feet)

1.10	0.42	1.45	2.56	2.15	6.70
1.15	.71	1.55	3.12	2.30	12.1
1.25	1.35	1.75	4.20		
1.35	1.97	1.95	5.22		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.90	0.96	0.90	2.1	1.7	e30	19	6.0	1.4	0.42	0.20	0.29
2	.90	.96	.96	3.8	1.7	e26	18	5.4	1.4	.42	.20	.38
3	.96	.90	.90	4.4	3.4	19	18	4.8	1.3	.54	.20	.42
4	.90	.90	.90	3.6	3.6	16	17	4.5	1.6	.54	.20	.48
5	.83	.90	.90	2.9	3.2	15	17	4.0	1.4	.48	.20	.42
6	1.1	.90	1.2	2.0	6.3	14	15	3.7	1.2	.42	.20	.38
7	.83	.90	1.0	1.7	5.6	13	14	3.5	1.4	.38	.20	.42
8	.77	.90	1.0	1.8	4.8	13	14	3.3	1.3	.38	.17	.38
9	.77	.83	1.4	2.6	4.8	13	14	3.1	1.2	.33	.17	.42
10	.71	.77	1.2	2.6	6.2	12	12	3.0	1.2	.33	.17	.65
11	.77	.83	1.5	2.1	5.6	10	11	2.9	1.0	.29	.17	.54
12	.77	.83	1.2	1.8	4.9	9.1	10	2.8	.90	.29	.17	.54
13	.77	.83	1.0	1.5	5.2	8.4	10	2.7	.83	.29	.17	1.20
14	.77	.90	1.0	1.6	5.4	8.0	9.5	2.6	.77	.29	.17	.96
15	.77	.90	1.1	1.4	4.6	8.0	9.1	2.6	.71	.24	.20	.77
16	.77	.90	1.2	1.4	3.7	8.2	8.4	2.4	.71	.20	.17	.71
17	.77	.90	1.4	1.4	4.0	8.0	7.8	2.3	.71	.20	.20	.71
18	.77	.83	1.2	1.2	3.8	7.7	7.5	2.2	.65	.24	.20	.96
19	.77	.90	1.1	1.2	3.5	7.5	7.3	2.2	.59	.24	.20	1.00
20	.77	.90	1.2	1.3	3.2	7.3	7.1	2.1	.54	.24	.20	.83
21	.77	.90	1.1	1.2	3.5	7.1	6.8	2.0	.54	.20	.20	.83
22	.77	.90	1.0	1.2	3.8	7.0	6.4	2.0	.54	.17	.20	.71
23	.83	.90	1.0	1.2	4.0	6.8	6.1	2.0	.48	.17	.20	.65
24	.83	.90	.96	1.2	4.0	6.8	6.0	1.9	.48	.17	.20	.65
25	.90	.96	.59	1.2	7.2	7.7	6.1	1.9	.48	.20	.20	.65
26	.90	.96	.83	2.0	12	9.8	6.1	1.9	.42	.20	.23	.65
27	.90	.96	.96	2.2	e22	9.8	6.4	1.8	.38	.20	.24	.65
28	.90	.96	.96	1.9	e36	9.1	6.2	1.8	.38	.20	.24	.71
29	.90	.90	1.0	1.8	e39	8.9	6.0	1.8	.38	.20	.24	.90
30	.90	.90	1.2	1.8	-	9.8	6.0	1.6	.42	.20	.29	.83
31	.90	-	1.6	1.8	-	16	-	1.4	-	.17	.33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	25.87	1.1	0.71	0.835	0.104	0.12	51
November	26.88	.96	.77	.896	.112	.12	53
December	33.46	1.6	.59	1.08	.135	.16	66
Calendar year	-	-	-	-	-	-	-
January	59.9	4.4	1.2	1.93	.241	.28	119
February	216.7	39	1.7	7.47	.934	1.01	430
March	352	30	6.8	11.4	1.42	1.64	698
April	307.8	19	6.0	10.3	1.29	1.44	611
May	86.2	6.0	1.4	2.78	.348	.40	171
June	25.31	1.6	.38	.844	.106	.12	50
July	8.84	.54	.17	.285	.036	.04	18
August	6.33	.33	.17	.204	.026	.03	13
September	19.69	1.2	.29	.656	.082	.09	39
Water year 1939-40	1,168.98	39	.17	3.19	.399	5.45	2,320

e Discharge computed on basis of six discharge measurements and comparison with record for Cottonwood Gulch near Boise.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geolog. al Survey

Little Camas canal at heading, near Bennett, Idaho

Location.- Staff gage, lat. 43°21'30", long. 115°23'00", in sec. 9, T. 1 S., R. 9 E., 400 feet downstream from Little Camas Reservoir, 4 miles northeast of Bennett, and 22 miles northeast of Mountain Home.

Records available.- June to November 1917, April 1924 to September 1940.

Extremes.- Maximum discharge observed during year, 54 second-feet May 28, June 6-27, July 5, 6, 15, 22, Aug. 2, 3, 9, 11; maximum gage height observed, 2.10 feet May 28, June 6, 17-19, 24, 25; no flow prior to May 20 and after Sept. 8.
1917, 1924-40: Maximum discharge, 77 second-feet Apr. 27-30, May 1, 3, 9, 1924; no flow during nonirrigation seasons.

Remarks.- Records good. Staff gage read once daily. Canal diverts from Little Camas Reservoir (South Fork of Boise River drainage) in sec. 9, T. 1 S., R. 9 E., and discharges into Long Tom Creek Basin, where water is stored in Long Tom Reservoir for irrigation of 5,000 acres of land near Mountain Home. No diversions above station. Flow regulated by head gates at Little Camas Reservoir.

Cooperation.- Gage-height record furnished by Mountain Home Irrigation District.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	50	53	53	43
2								0	50	53	54	42
3								0	51	53	54	42
4								0	52	53	50	42
5								0	52	54	50	42
6								0	54	54	50	40
7								0	54	53	50	19
8								0	54	53	53	2
9								0	54	53	54	0
10								0	54	53	53	0
11								0	54	53	54	0
12								0	54	53	52	0
13								0	54	53	52	0
14								0	54	53	52	0
15								0	54	54	51	0
16								0	54	53	50	0
17								0	54	53	49	0
18								0	54	53	49	0
19								0	54	53	47	0
20								10	54	53	46	0
21								22	54	52	46	0
22								25	54	54	46	0
23								30	54	53	46	0
24								36	54	53	46	0
25								40	54	53	45	0
26								46	54	52	45	0
27								51	54	53	46	0
28								53	53	52	45	0
29								50	53	51	45	0
30								49	52	52	44	0
31								49	-	52	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1939	6,739	64	0	18.5	13,360
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	461	53	0	14.9	914
June	1,601	54	50	53.4	3,180
July	1,640	54	51	52.9	3,250
August	1,520	54	43	49.0	3,010
September	272	43	0	9.1	540
Water year 1939-40	5,494	54	0	15.0	10,890

Note.- Discharge for May 20, 21, 23-28, 31, June 3, 5, Sept. 7, 8, computed on basis of gate changes.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Moore Creek above Granite Creek, near Idaho City, Idaho

Location.- Water-stage recorder, lat. 43°50', long. 115°47', in SE¼SE¼ sec. 19, T. 6 N., R. 6 E., 1,000 feet upstream from Hoodoo Creek, five-eighths of a mile upstream from Granite Creek, and 2 3/8 miles northeast of Idaho City.

Drainage area.- 37.0 square miles.

Records available.- January 1939 to September 1940.

Extremes.- Maximum discharge during year, 261 second-feet Mar. 27 (gage height, 3.55 feet), from rating curve extended above 200 second-feet; minimum, 0.8 second-foot July 24 (gage height, 1.05 feet).
1939-40: Maximum discharge, that of Mar. 27, 1940; minimum, that of July 24, 1940.

Remarks.- Records good except those for periods of ice effect and Aug. 3-5, which are fair. Gold Hill Placer diversion takes water from creek for use in mining 4 1/8 miles above station. Some of this water is used to supplement domestic supply of Idaho City. Return flow enters Moore Creek through Elk Creek. Station operated in connection with a study of silt movement in the Boise River Basin.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	2.8	7.6	17	11	*62	170	67	52	2.0	1.8	2.5
2	5.1	2.6	7.6	32	11	53	144	72	48	2.8	2.3	2.5
3	5.6	2.6	7.6	*29	12	46	123	83	42	12	a2.5	3.4
4	6.2	2.6	7.6	23	13	43	110	86	40	11	a2.0	5.4
5	7.2	2.4	6.9	19	12	40	110	78	36	7.0	a1.8	2.8
6	11	2.4	8.3	12	17	37	99	74	33	4.1	1.5	2.5
7	5.9	2.6	7.6	13	17	36	94	74	31	2.0	1.4	2.5
8	5.4	2.6	8.0	16	*15	62	91	76	28	1.5	1.2	4.1
9	5.6	5.6	14	16	14	60	103	84	24	1.5	1.1	3.4
10	6.2	7.6	14	14	20	53	100	99	23	1.5	1.2	2.8
11	2.8	7.6	14	b11	18	46	99	116	22	1.5	1.4	2.3
12	2.6	7.6	10	13	14	40	105	123	g18	1.8	1.4	5.7
13	2.6	7.6	9.7	b10	16	36	119	119	16	2.8	1.5	6.6
14	2.8	7.2	9.4	b12	16	34	136	108	12	2.8	1.2	2.5
15	3.2	7.2	10	b10	14	35	127	97	12	2.8	1.2	1.8
16	3.7	7.2	17	11	*16	38	110	90	8.5	3.4	1.2	1.5
17	4.0	7.2	23	12	13	42	103	86	6.6	4.7	1.2	1.8
18	3.4	7.1	15	11	13	48	109	82	6.0	4.7	1.2	2.8
19	3.0	7.3	12	*b9.0	11	52	119	80	4.1	4.1	1.2	7.9
20	2.6	7.1	*12	11	b10	58	119	78	4.7	4.1	1.4	9.7
21	2.6	7.2	11	10	b12	64	100	77	2.8	2.8	1.4	10.0
22	2.6	7.6	7.1	9.7	12	72	93	75	2.8	2.8	1.4	9.7
23	2.6	7.6	9.7	10	13	80	89	74	2.8	2.3	1.4	8.5
24	2.6	7.6	9.4	10	12	86	85	74	2.3	1.1	1.5	7.9
25	3.0	7.6	b6.0	9.7	15	147	84	74	2.3	1.5	1.8	7.9
26	2.8	7.6	b8.0	11	25	172	91	72	2.0	2.3	1.8	7.9
27	2.6	7.6	*9.7	11	53	218	119	66	2.0	4.1	1.8	7.9
28	3.2	7.6	8.6	10	87	163	86	61	2.0	3.4	1.8	7.9
29	3.2	7.6	10	11	88	123	74	59	1.8	2.5	2.0	9.1
30	2.8	7.6	11	11	-	117	69	56	2.0	2.5	2.0	8.5
31	2.8	-	12	11	-	168	-	54	-	2.5	2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	122.9	11	2.6	3.96	244
November	182.5	7.6	2.4	6.08	362
December	323.8	23	6.0	10.4	642
Calendar year	-	-	-	-	-
January	415.4	32	9.0	13.4	824
February	600	88	10	20.7	1,190
March	2,331	218	34	75.2	4,620
April	3,180	170	69	106	6,310
May	2,514	123	54	81.1	4,990
June	489.7	52	1.8	16.3	971
July	106.8	12	1.1	3.45	212
August	48.6	2.5	1.1	1.57	96
September	159.8	10	1.5	5.33	317
Water year 1939-40	10,474.5	218	1.1	28.6	20,780

*Winter discharge measurement made on this day.
a Incomplete or no gage-height record; discharge computed on basis of records for nearby stations.
b Stage-discharge relation affected by ice
g Discharge computed from graph based on gage readings.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Moore Creek above Thorn Creek, near Idaho City, Idaho

Location.- Water-stage recorder and broad-crested concrete-block control, lat. 43°46', long. 115°55', in NW¼NW¼ sec. 18, T. 5 N., R. 5 E., 1¾ miles upstream from Thorn Creek and 5½ miles southwest of Idaho City.
Drainage area.- 119 square miles.
Records available.- January 1939 to September 1940.
Extremes.- Maximum discharge during year, 725 second-feet Mar. 27 (gage height, 4.38 feet); minimum, 4.6 second-feet Aug. 31 (gage height, 1.19 feet).
1939-40: Maximum discharge, that of Mar. 27, 1940; minimum, 4.4 second-feet Aug. 30, 1939 (gage height, 1.18 feet).
Remarks.- Records good except those for periods of ice effect, which are fair. Many diversions above station for placer mining. A small ditch diverts water from Thorn Creek into Pine Creek for mining use. Flow slightly regulated by passage through dredged areas near Idaho City. Station operated in connection with a study of silt movement in Boise River Basin.

Rating tables, water year 1939-40, except periods of ice effect, (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 27				Mar. 28 to Sept. 30			
1.3	9.1	3.3	370	1.1	2.0	2.8	237
1.7	42.5	3.7	488	1.4	14.0	3.1	312
2.1	100	4.1	622	1.7	39.5	3.5	426
2.5	178	4.4	733	2.0	81	3.9	553
2.9	268			2.4	151		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	35	17	35	25	213	448	182	109	26	9.4	6.9
2	11	23	20	52	24	174	402	167	104	24	10	6.5
3	11	19	19	*66	28	153	345	188	99	24	7.7	6.5
4	11	17	16	61	32	138	291	194	97	32	8.5	8.9
5	12	16	16	50	33	126	302	182	99	34	11	11
6	14	15	18	38	40	114	271	169	87	31	8.1	12
7	14	15	18	33	*52	108	266	167	83	27	8.5	13
8	16	16	19	25	46	155	244	165	80	24	7.7	12
9	17	15	22	34	41	178	259	173	70	20	8.1	12
10	17	14	32	38	51	159	249	188	69	20	8.1	12
11	16	13	35	34	62	136	237	214	65	19	8.1	12
12	15	13	33	28	50	114	230	228	63	16	7.7	12
13	15	14	28	b25	42	105	247	230	59	15	7.7	13
14	15	15	27	b24	46	103	284	219	56	15	7.3	18
15	14	15	29	b23	42	100	299	203	55	13	7.3	19
16	14	15	32	*b24	b35	103	261	188	53	13	8.5	15
17	14	16	46	b25	36	112	247	177	48	13	7.3	14
18	13	21	41	b25	38	117	244	169	44	13	6.9	14
19	14	18	*35	*b23	b32	130	251	161	42	12	6.9	13
20	14	17	32	b23	b28	136	259	161	32	12	6.9	14
21	15	17	30	b23	b27	146	232	155	36	12	6.5	16
22	15	18	25	23	34	157	212	147	36	11	6.5	16
23	15	22	21	23	36	170	199	145	36	10	6.9	15
24	15	23	21	23	36	182	192	143	46	11	6.5	13
25	15	22	b19	23	37	250	192	143	40	11	6.1	13
26	18	28	b18	25	52	381	203	143	31	11	6.5	13
27	19	22	*19	29	136	629	242	134	32	13	6.1	13
28	16	19	b19	30	263	448	214	127	29	12	6.1	13
29	16	20	22	28	*287	361	203	123	29	11	4.9	17
30	17	19	22	27	-	312	186	119	24	9.4	5.3	19
31	32	-	27	26	-	405	-	112	-	11	5.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	471	32	11	15.2	0.128	0.15	934
November	552	35	13	18.4	.155	.17	1,090
December	778	46	16	25.1	.211	.24	1,540
Calendar year	-	-	-	-	-	-	-
January	966	66	23	31.2	.262	.30	1,920
February	1,691	287	24	58.3	.490	.53	3,350
March	6,115	629	100	197	1.66	1.91	12,130
April	7,711	448	186	257	2.16	2.41	15,290
May	5,216	230	112	168	1.41	1.63	10,350
June	1,753	109	24	58.4	.491	.55	3,480
July	525.4	34	9.4	16.9	.142	.16	1,040
August	228.8	11	4.9	7.38	.062	.07	454
September	392.8	19	6.5	13.1	.110	.12	779
Water year 1939-40	26,400	629	4.9	72.1	.606	8.24	52,360

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Moore Creek near Arrowrock, Idaho

Location.- Staff gage, lat. 43°35', long. 115°59', in sec. 21, T. 3 N., R. 4 E., at bridge on Boise-Arrowrock highway, a quarter of a mile upstream from mouth and 3 miles southwest of Arrowrock.

Drainage area.- 426 square miles.

Records available.- October 1914 to November 1915, (discharge measurements only), December 1915 to September 1940.

Average discharge.- 24 years (1916-40), 286 second-feet.

Extremes.- Maximum discharge during year, 3,370 second-feet Mar. 27 (gage height, 5.4 feet, from high-water mark); minimum observed, 14 second-feet Aug. 20, Aug. 22 to Sept. 3; minimum gage height observed, 0.16 foot Sept. 1,2.

1915-40: Maximum discharge observed, 4,550 second-feet Apr. 19, 1936; maximum gage height, 6.3 feet (datum then in use) Apr. 11, 1916; minimum discharge, 7.9 second-feet Aug. 13-15, 17, 18, 1924; minimum gage height observed, 0.09 foot Aug. 28, 29, Sept. 1, 1939.

Remarks.- Records fair. Gage read once daily. No large diversions above station.

Cooperation.- Gage-height record furnished by Board of Control for Boise project. Five discharge measurements furnished by watermaster for Boise River.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	85	59	156	90	915	1,930	550	347	65	27	14
2	36	64	53	208	87	765	1,820	550	327	64	25	14
3	34	56	58	289	99	698	1,400	605	308	58	24	14
4	36	49	59	238	156	578	1,160	635	289	73	22	19
5	36	51	56	193	138	550	1,300	605	308	101	21	31
6	46	46	65	156	156	500	1,120	550	272	75	21	29
7	45	48	58	96	272	455	1,040	525	272	65	19	30
8	48	49	58	121	208	698	995	525	272	58	19	29
9	45	51	73	144	180	730	1,080	500	238	47	19	29
10	45	39	123	167	238	578	1,040	550	222	45	18	31
11	49	43	156	131	327	478	955	578	222	45	18	31
12	54	43	121	107	222	410	915	635	193	42	16	29
13	45	52	96	73	180	367	995	635	180	38	18	32
14	43	51	76	65	193	367	1,080	605	167	37	17	43
15	42	46	76	62	193	367	1,120	578	156	37	16	42
16	42	43	94	64	140	367	995	550	156	35	16	45
17	42	41	156	80	167	388	875	550	144	33	16	64
18	40	41	193	96	167	410	875	525	131	33	16	d62
19	40	46	127	65	136	432	875	500	120	31	16	60
20	45	46	119	70	107	455	875	500	111	29	14	49
21	43	43	119	71	96	478	800	478	96	29	15	47
22	43	51	90	80	134	500	730	455	92	29	14	47
23	45	53	82	68	136	525	698	455	92	25	14	47
24	45	52	80	78	117	d550	665	455	87	25	14	42
25	47	53	54	73	105	698	635	455	78	27	14	40
26	46	59	39	83	254	1,300	665	455	82	27	14	39
27	62	68	56	111	665	3,090	838	432	76	30	14	37
28	52	59	46	113	1,210	1,930	665	388	73	33	14	37
29	54	59	68	99	1,210	1,400	665	388	68	29	14	43
30	52	59	92	92	-	1,300	605	388	65	25	14	51
31	53	-	111	90	-	1,500	-	367	-	26	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,384	62	29	44.6	0.105	0.12	2,750
November	1,548	85	39	51.6	.121	.14	3,070
December	2,713	193	39	87.5	.205	.24	5,380
Calendar year 1939	75,617	1,500	12	207	.486	6.61	150,000
January	3,539	289	62	114	.268	.31	7,020
February	7,383	1,210	87	255	.599	.65	14,640
March	23,779	3,090	367	767	1.80	2.08	47,160
April	29,411	1,930	605	980	2.30	2.57	58,340
May	15,967	635	367	515	1.21	1.40	31,670
June	5,253	347	65	175	.411	.46	10,420
July	1,316	101	25	42.5	.100	.12	2,610
August	533	27	14	17.2	.040	.05	1,060
September	1,127	64	14	37.6	.088	.10	2,240
Water year 1939-40	93,953	3,090	14	257	.603	8.24	186,400

d Doubtful gage-height record; discharge computed on basis of weather records ard records for stations in Boise River Basin.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geolog al Survey

Gold Hill placer diversion from Moore Creek near Idaho City, Idaho

Location.- Staff gage, lat. 43°53', long. 115°44', in sec. 3, T. 6 N., R. 6 E., just downstream from highway bridge, 760 feet downstream from headgates, and 6 miles northeast of Idaho City.

Records available.- April 1939 to September 1940.

Extremes.- Maximum discharge observed during year, 28 second-feet June 13, 15, 16 (gage height, 1.46 feet); no flow Nov. 10 to Apr. 12, Sept. 20-30.
1939-40: Maximum discharge observed, 33 second-feet May 31, 1939 (gage height, 1.56 feet); no flow at times during each year.

Remarks.- Records good except those for periods of incomplete or no gage-height record, which are fair. Gage read once or twice daily. Canal diverts from right bank of Moore Creek in sec. 3, T. 6 N., R. 6 E., for placer mining and to supplement domestic supply of Idaho City. Water normally returns to Moore Creek through Elk Creek. Station operated in connection with a study of silt movement in the Boise River Basin.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.9	6.3					0	21	25	17	e5.5	e4.5
2	4.9	6.3					0	21	26	e14	e5.0	5.2
3	5.2	6.3					0	21	27	9.6	e5.0	e6.5
4	5.2	6.1					0	20	27	5.7	e5.5	8.6
5	4.7	5.9					0	21	26	5.7	5.9	7.1
6	4.9	5.9					0	21	27	e11	5.4	e7.0
7	4.7	6.3					0	21	26	e13	6.7	e7.0
8	3.9	6.1					0	22	26	11	e6.5	e5.5
9	3.4	e3.3					0	23	26	e14	e6.5	e6.0
10	2.6	0					0	24	26	e12	e6.5	6.5
11	6.3	0					0	25	26	e10	6.1	e7.0
12	6.3	0					0	22	27	e9.0	6.3	e5.5
13	6.1	0					e7.3	22	28	e8.0	e5.5	e5.5
14	6.3	0					18	22	27	e8.0	e5.5	e7.5
15	6.1	0					16	25	e25	8.1	e5.5	e6.0
16	5.9	0					14	23	27	7.9	e5.5	6.3
17	5.9	0					14	22	27	e6.5	e5.5	6.3
18	6.1	0					14	23	25	e6.5	e5.5	6.7
19	e5.4	0					14	25	26	e6.0	4.4	e1.5
20	5.9	0					14	25	23	e5.5	5.6	0
21	6.1	0					16	25	21	e6.5	e5.0	0
22	6.1	0					19	26	22	5.2	e5.0	0
23	6.3	0					21	26	22	7.1	e5.0	0
24	5.9	0					21	25	21	9.1	e5.0	0
25	6.7	0					21	25	e20	e7.5	e4.5	0
26	6.3	0					22	25	18	e7.0	4.4	0
27	6.3	0					e5.9	25	18	e6.0	4.9	0
28	7.1	0					19	25	18	e5.5	5.7	0
29	6.9	0					1e	26	17	5.2	e5.0	0
30	6.7	0					20	26	16	4.9	e5.0	0
31	6.3	-					-	26	-	e5.0	e5.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	175.4	7.1	2.6	5.66	34e
November	52.5	6.3	0	1.75	104
December	0	0	0	0	0
Calendar year	-	-	-	-	-
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	294.2	22	0	9.81	584
May	729	26	20	23.5	1,450
June	716	28	16	23.9	1,420
July	257.5	17	4.9	8.31	511
August	168.4	6.7	4.4	5.43	334
September	116.2	8.6	0	3.87	230
Water year 1939-40	2,509.2	28	0	6.86	4,980

e No gage-height record or gage reading not representative of average for day; discharge computed on basis of records for Moore Creek above Granite Creek and Elk Creek above Gold Hill diversion, near Idaho City.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Granite Creek near Idaho City, Idaho

Location.- Water-stage recorder and broad-crested wooden control, lat. 43°49'30", long. 115°47'00", three-eighths of a mile upstream from mouth and 2¼ miles east of Idaho City.

Drainage area.- 4.8 square miles.

Records available.- January 1939 to September 1940.

Extremes.- Maximum discharge during year, 21 second-feet Mar. 27 (gage height, 2.70 feet), from rating curve extended above 12 second-feet; minimum daily, 0.28 second-foot Aug. 10, 11, 19.
1939-40: Maximum discharge, that of Mar. 27, 1940; minimum, 0.28 second-foot Aug. 20, 21, 1939, Aug. 10, 11, 19, 1940.

Remarks.- Records good except those for periods of ice effect and July 12-15, 17-24, July 29 to Aug. 12, which are fair. No diversion or regulation. Station operated in connection with a study of silt movement in the Boise River Basin.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.51	0.59	0.66	1.4	b0.70	4.4	11	4.1	1.3	0.53	0.33	0.32
2	.57	.62	.66	1.8	b.80	3.7	9.1	4.0	1.3	.49	.33	.36
3	.53	.59	.66	*1.5	1.0	3.2	8.0	4.0	1.2	.66	.32	.40
4	.53	.59	.64	*1.3	1.1	2.9	7.3	3.9	1.4	.62	.32	.75
5	.62	.57	.64	1.0	1.0	2.6	7.4	3.6	1.2	.47	.31	.50
6	.80	.62	*.80	.59	1.5	2.4	6.4	3.4	1.1	.46	.34	.43
7	.62	.64	.68	b.75	1.4	2.6	5.9	3.3	1.1	.44	.31	.47
8	.57	.62	.75	1.0	*1.2	3.5	5.7	3.1	1.1	.44	.30	.45
9	.53	*.51	1.1	.97	1.2	3.2	5.9	3.0	1.0	.44	.29	.42
10	.53	.55	.92	.92	1.8	3.1	5.4	3.0	.94	.40	.28	.42
11	.53	.66	1.1	.71	1.4	2.8	5.2	3.0	.90	.38	.28	.39
12	.53	.62	.82	.90	1.1	2.4	5.0	3.0	.84	.36	.30	.40
13	.53	.62	.80	b.70	1.3	2.5	5.2	3.0	.80	.38	.30	.65
14	.53	.59	.77	.88	1.3	2.5	5.3	2.8	.77	.37	.29	.50
15	.53	.59	.87	b.70	1.1	2.5	5.4	2.6	.73	.37	.32	.45
16	.53	.60	1.0	.77	*1.1	2.7	5.0	2.4	.70	.40	.32	.43
17	.51	b.50	1.4	.77	1.1	2.9	4.6	2.3	.68	.38	.30	.45
18	.55	.64	.92	.75	1.0	2.9	4.4	2.2	.64	.36	.30	.65
19	.57	.64	.77	*.73	.90	3.0	4.2	2.1	.59	.35	.28	.61
20	.59	.66	*.90	.73	.87	3.1	4.2	2.0	.59	.35	.30	.57
21	.59	b.65	.73	.73	b.95	3.1	4.0	1.9	.57	.35	.29	.54
22	.59	.68	.54	.73	1.0	3.2	3.8	1.8	.57	.33	.30	.48
23	.57	.66	.74	.73	.97	3.4	3.7	1.7	.55	.33	.32	.47
24	.57	.66	.77	.75	.97	3.5	3.5	1.6	.53	.38	.34	.48
25	.64	.66	b.40	.77	1.4	5.5	3.5	1.6	.51	.38	.40	.48
26	.62	.70	b.70	.92	2.3	8.7	4.6	1.6	.49	.46	.36	.48
27	.59	.70	.84	.90	5.5	12	5.6	1.5	.49	.46	.33	.48
28	.66	.64	.73	.82	*7.3	8.9	5.0	1.5	.47	.38	.35	.57
29	.62	.66	.75	.80	6.1	7.6	4.8	1.4	.47	.36	.34	.73
30	.59	.66	.87	b.80	-	7.2	4.4	1.3	.49	.34	.33	.63
31	.59	-	1.0	b.75	-	9.9	-	1.3	-	.34	.33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	17.84	0.80	0.51	0.575	0.120	0.14	35
November	18.69	.70	.50	.623	.130	.14	37
December	24.93	1.4	.40	.804	.168	.19	49
Calendar year	-	-	-	-	-	-	-
January	27.57	1.8	.59	.889	.185	.21	55
February	49.36	7.3	.70	1.70	.354	.38	98
March	131.9	12	2.4	4.25	.885	1.02	262
April	163.5	11	3.5	5.45	1.14	1.27	324
May	78.0	4.1	1.3	2.52	.525	.61	155
June	24.02	1.4	.47	.801	.167	.19	48
July	12.76	.66	.33	.412	.086	.10	25
August	9.81	.40	.28	.316	.066	.08	19
September	14.96	.75	.32	.499	.104	.12	30
Water year 1939-40	573.34	12	.28	1.57	.327	4.45	1,140

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Bannock Creek near Idaho City, Idaho

Location.- Water-stage recorder and broad-crested wooden control with V-notch for low stages, lat. 43°46'30", long. 115°46'30", in SE¼SW¼ sec. 32, T. 6 N., R. 6 E., three quarters of a mile upstream from South Fork, 2¼ miles upstream from mouth, and 3 1/8 miles southeast of Idaho City.

Drainage area.- 4.5 square miles.

Records available.- January 1939 to September 1940.

Extremes.- Maximum discharge during year, 23 second-feet Mar. 26 (gage height, 1.68 feet), from rating curve extended above 10 second-feet; minimum, 0.07 second-foot Aug. 23 (gage height, 0.21 foot).
1939-40: Maximum discharge, that of Mar. 26, 1940; minimum, that of Aug. 23, 1940.

Remarks.- Records good except those for periods of ice effect, which are fair. One small diversion above station by Intermountain Range and Experiment Station. Station operated in connection with a study of silt movement in the Boise River Basin.

Rating table, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.2	0.06	0.6	1.16	1.1	6.00
.3	.21	.7	1.74	1.3	10.1
.4	.44	.8	2.48	1.5	16.1
.5	.74	.9	3.40	1.7	24.1

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.30	0.39	0.44	0.82	0.52	2.0	7.5	4.8	1.3	0.50	0.19	0.14
2	.37	.39	.44	1.2	.52	1.7	6.9	4.6	1.3	.44	.19	.17
3	.34	.39	.44	1.0	.61	1.6	6.0	4.4	1.2	.60	.19	.19
4	.34	.39	.44	*.82	.64	1.4	5.6	4.4	1.3	.55	.19	.58
5	.37	.37	.42	.71	.61	1.3	5.7	4.2	1.3	.44	.17	.39
6	.55	.39	.58	.50	.78	*1.4	5.3	4.1	1.2	.44	.17	.30
7	.39	.39	.44	b.55	*.71	1.3	5.1	3.7	1.2	.42	.17	.28
8	.37	.39	.52	.68	.61	1.9	5.1	3.5	1.1	.39	.16	.32
9	.34	.32	.85	.68	.64	1.7	5.1	3.4	1.1	.42	.16	.28
10	.34	.34	.68	.68	.89	1.7	4.8	3.4	1.0	.37	.16	.30
11	.34	.39	.85	.61	.71	1.6	4.6	3.4	.93	.37	.16	.28
12	.34	.39	.58	.58	.58	b1.4	4.8	3.2	.85	.32	.14	.28
13	.34	.39	.55	b.50	.74	b1.4	5.1	3.1	.82	.32	.14	.42
14	.34	.39	.55	.55	.71	b1.4	5.4	3.0	.82	.32	.14	.39
15	.34	.37	.64	.50	.64	1.4	5.4	2.9	.78	.32	.14	.34
16	.34	.34	.85	.50	.61	1.6	5.3	2.8	.74	.32	.14	.32
17	.34	.34	1.2	.50	.61	1.6	5.0	2.7	.71	.32	.14	.32
18	.34	.37	1.1	.52	.61	1.7	4.7	2.5	.68	.30	.14	.50
19	.32	.37	.74	*.50	.55	1.7	4.8	2.3	.64	.28	.14	.50
20	.32	.37	*.61	.50	.52	1.8	5.3	2.3	.58	.25	.12	.44
21	.32	.37	.52	.50	.55	2.0	5.0	2.1	.61	.25	.14	.44
22	.32	.39	.42	.50	.58	2.1	4.7	2.0	.58	.23	.14	.42
23	.32	.39	.50	.50	.61	2.3	4.4	1.9	.58	.21	.12	.39
24	.34	.42	.47	.50	.61	2.6	4.2	1.7	.55	.21	.14	.39
25	.39	.39	b.40	.52	.78	g4.3	4.2	1.7	.52	.25	.23	.39
26	.39	.39	b.45	.61	1.1	*g6.7	4.8	1.7	.52	.32	.21	.39
27	.39	.39	.50	.61	1.9	11	5.9	1.6	.50	.37	.17	.39
28	.44	.42	.47	.55	2.8	7.5	5.6	1.6	.50	.28	.17	.44
29	.42	.42	.50	.55	2.5	6.2	5.4	1.5	.47	.23	.17	.58
30	.39	.44	.58	.55	-	6.4	5.1	1.4	.50	.23	.17	.52
31	.39	-	.68	.52	-	7.8	-	1.3	-	.21	.16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	11.18	0.55	0.30	0.361	0.080	0.09	22
November	11.50	.44	.32	.383	.085	.09	23
December	18.41	1.2	.40	.594	.132	.15	37
Calendar year	-	-	-	-	-	-	-
January	18.81	1.2	.50	.607	.135	.16	37
February	24.24	2.8	.52	.836	.186	.20	48
March	90.5	11	1.3	2.92	.649	.75	180
April	156.8	7.5	4.2	5.23	1.16	1.29	311
May	87.2	4.8	1.3	2.81	.624	.72	173
June	24.88	1.3	.47	.829	.184	.21	49
July	10.48	.60	.21	.338	.075	.09	21
August	4.97	.23	.12	.160	.036	.04	9.9
September	11.09	.58	.14	.370	.082	.09	22
Water year 1939-40	470.06	11	.12	1.28	.284	3.88	933

*Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
g Discharge computed from graph based on gage readings.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Pine Creek above Barry Placer diversion, near Idaho City, Idaho

Location.- Water-stage recorder and broad-crested wooden control with rectangular flume for low stages, lat. 43°48'30", long. 115°43'00", in NW¼NE¼ sec. 1, T. 5 N., R. 5 E., 100 feet upstream from headgate of Barry Placer ditch, 1¼ miles upstream from mouth, 1 7/8 miles downstream from Davis Placer diversion, and 2 miles southeast of Idaho City.

Drainage area.- 6.1 square miles.

Records available.- February to September 1940.

Extremes.- Maximum discharge during period, 22 second-feet Mar. 27 (gage height, 4.54 feet); no flow, July 22, 23, Aug. 5, 4, 8, 9.

Remarks.- Records good except those for periods of ice effect which are fair. Water is diverted from left bank of Pine Creek in SE¼ sec. 12, T. 5 N., R. 5 E., 1 7/8 miles above station, for Davis Placer; records of this diversion obtained in SW¼ sec. 1, T 5 N., R. 5 E., Water is diverted from right bank of Thorn Creek in NW¼ sec. 21, T. 5 N., R. 6 E., into Pine Creek above Davis Placer diversion; records of this diversion are obtained at a site three-quarters of a mile below headgate. Return flow enters Moore Creek below mouth of Pine Creek. Net diversion, in acre-feet, from Pine Creek as determined from these records is given in the following table.

Feb. 13-29	20	June	28
March	76	July	6.6
April	189	August	1.6
May	73	September	8.2

† Gage operated in connection with a study of silt movement in the Boise River Basin.

Rating table, Feb. 13 to Sept. 30, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 13-27, Mar. 28 to Apr. 10)

2.84	0	3.5	2.32	4.2	15.5
2.95	.19	3.7	3.15	4.4	23.2
3.1	.74	3.8	4.50	4.6	32.1
3.3	1.52	4.0	9.2		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	5.8	16	1.1	0.35	0.14	0.05	0.06
2					-	5.1	15	1.1	.32	.11	.05	.11
3					-	4.5	13	1.1	.32	.16	.05	.11
4					-	3.2	11	1.1	.39	.16	.05	.43
5					-	3.4	11	1.3	.35	.11	.05	.19
6					-	*3.2	6.9	1.1	.32	.09	.05	.14
7					-	3.5	6.4	1.1	.35	.09	.05	.14
8					-	5.3	6.4	1.0	.29	.09	.04	.14
9					-	5.3	6.6	1.2	.25	.11	.04	.11
10					-	4.9	6.2	.90	.29	.11	.04	.16
11					-	*4.1	6.0	1.1	.25	.09	.04	.14
12					-	*b3.5	3.9	.90	.25	.03	.05	.16
13					b0.85	b3.2	3.2	1.1	.22	.03	.05	.29
14					.86	3.3	3.0	.62	.22	.03	.06	.22
15					.70	*2.9	2.9	.82	.22	.03	.06	.16
16					*b.60	2.4	2.6	.97	.22	.11	.03	.16
17					.58	2.6	2.5	1.8	.19	.11	.11	.16
18					.54	2.6	2.0	.78	.16	.03	.09	.29
19					b.45	2.6	2.1	.62	.16	.03	.09	.25
20					b.35	2.6	2.4	.51	.16	.03	.09	.22
21					b.30	2.6	2.4	.47	.14	.03	.06	.22
22					.43	2.6	2.7	1.0	.14	.06	.06	.19
23					.43	2.6	1.5	.51	.14	.05	.06	.19
24					.39	2.6	1.4	.43	.16	.06	.09	.19
25					.70	4.3	1.4	.43	.14	.11	.09	.19
26					1.6	9.4	2.0	.39	.14	.14	.06	.16
27					6.5	27	1.8	.35	.14	.14	.06	.16
28					*11	17	1.5	.43	.14	.09	.06	.22
29					8.4	12	1.6	.43	.14	.09	.09	.32
30					-	11	3.7	.35	.14	.05	.09	.25
31					-	15	-	.35	-	.05	.06	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February 13-29	34.68	11	0.30	2.04	69
March	180.8	27	2.4	5.83	359
April	149.1	16	1.4	4.97	296
May	25.36	1.8	.35	.818	50
June	6.70	.39	.14	.223	13
July	2.81	.16	.05	.091	5.6
August	1.96	.11	.04	.033	3.9
September	5.73	.32	.05	.191	11
The period	-	-	-	-	808

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

Pine Creek near Idaho City, Idaho

Location.- Water-stage recorder and broad-crested wooden control with rectangular flume for low stages, lat. 43°49', long. 115°48'30", in SW¼NE¼ sec. 36, T. 6 N., R. 5 E., a quarter of a mile upstream from Steamboat Gulch, half a mile upstream from mouth, and 1½ miles southeast of Idaho City.

Drainage area.- 6.5 square miles.

Records available.- January 1939 to February 1940 (discontinued prior to initial operation of Barry Placer diversion).

Extremes.- Maximum discharge during period, 2.0 second-feet Feb. 12; maximum gage height, 1.60 feet Feb. 12 (ice effect); minimum discharge, 0.07 second-foot Nov. 5, 6, 9, 10; minimum gage height, 1.07 feet Dec. 24, Feb. 1.

1939-40: Maximum discharge, 12 second-feet Mar. 25, Apr. 1-3, 1939; maximum gage height, 2.38 feet Apr. 3; minimum discharge, 0.03 second-foot at times, July to September 1939; minimum gage height, 1.07 feet many days in 1939 and 1940.

Remarks.- Records good except those for days of ice effect, which are fair. Water is diverted from left bank of Pine Creek in SE¼ sec. 12, T. 5 N., R. 5 E., 2 5/8 miles above station, for Davis Placer; records for this diversion obtained in SW¼ sec. 1, T. 5 N., R. 5 E. Water is diverted from right bank of Thorn Creek in NW¼ sec. 21, T. 5 N., R. 6 E., into Pine Creek above Davis Placer diversion; records for this diversion are obtained at a site three-quarters of a mile below headgate. Return flow enters Moore Creek below mouth of Pine Creek. Net diversion, in acre-feet, from Pine Creek as determined from these records is given in the following table.

October.....	4.2	January.....	22
November.....	9.4	Feb. 1-12.....	16
December.....	18		

Station operated in connection with a study of silt movement in the Boise River Basin.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.17	0.14	0.27	0.65	0.35							
2	.20	.14	.27	.87	.39							
3	.24	.14	.27	*1.0	.50							
4	.24	.14	.27	*.85	.54							
5	.27	.14	.27	.73	.57							
6	.35	.14	.35	*.54	1.2							
7	.27	.17	.31	.57	*1.2							
8	.24	.17	.31	.65	.97							
9	.24	.14	.57	.61	.96							
10	.24	.14	.46	.61	1.5							
11	.20	.17	.61	.54	1.4							
12	.20	.20	.42	.57	b1.0							
13	.20	.20	.42	.54	-							
14	.20	.17	.38	.54	-							
15	.24	.20	.45	.50	-							
16	.38	.20	.61	.46	-							
17	.38	.20	.85	.42	-							
18	.38	.20	.54	.42	-							
19	.38	.20	.46	*.42	-							
20	.38	.20	*.46	.42	-							
21	.38	.27	.38	.42	-							
22	.35	.27	.31	.42	-							
23	.35	.31	.35	.42	-							
24	.35	.31	.31	.42	-							
25	.42	.27	b.30	.38	-							
26	.38	.31	.35	.46	-							
27	.38	.31	.38	.54	-							
28	.42	.27	.38	.46	-							
29	.38	.27	.38	.38	-							
30	.17	.27	.46	.35	-							
31	.14	-	.54	.31	-							

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	9.12	0.42	0.14	0.294	18
November.....	6.26	.31	.14	.209	12
December.....	12.70	.95	.27	.410	25
Calendar year	-	-	-	-	-
January.....	16.47	1.0	.31	.531	33
February 1-12.....	10.57	1.5	.35	.881	21
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	-	-	-	-	-
June.....	-	-	-	-	-
July.....	-	-	-	-	-
August.....	-	-	-	-	-
September.....	-	-	-	-	-
The period.....	-	-	-	-	109

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

Elk Creek above Gold Hill Placer diversion, near Idaho City, Idaho

Location.- Water-stage recorder, lat. 43°54'00", long. 115°47'30", in SW¼NW¼ sec. 31, T. 7 N., R. 6 E., a quarter of a mile upstream from headgates of Gold Hill Placer diversion, half a mile above Forest King Gulch, and 5½ miles north of Idaho City.

Drainage area.- 13.1 square miles.

Records available.- February to September 1940.

Extremes.- Maximum discharge during period, 137 second-feet Mar. 26 (gage height, 2.27 feet), from rating curve extended above 60 second-feet; minimum, 3.6 second-feet Aug. 20; minimum gage height, 0.90 foot Feb. 12, 20.

Remarks.- Records good except those for periods of ice effect, which are fair. No diversions or regulation above station. Station operated in connection with a study of silt movement in the Boise River Basin.

Rating table, Feb. 4 to Sept. 30, 1940, except periods of ice effect, (gage height, in feet, and discharge, in second-feet)

Feb. 4 to Mar. 26				Mar. 27 to Sept. 30			
0.9	5.1	1.8	68.0	1.00	3.6	1.60	41.7
1.2	15.1	2.1	109	1.15	8.0	1.90	79.7
1.5	36.6			1.30	15.7	2.20	125

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	16	58	41	32	9.8	5.5	4.2
2					-	14	51	45	31	9.3	5.5	4.4
3					-	13	45	51	30	11	5.2	4.6
4					6.9	12	41	50	29	11	5.2	7.2
5					6.7	12	41	45	28	9.3	5.2	5.8
6					7.4	11	39	44	25	9.3	5.2	4.9
7					*7.4	11	38	45	25	8.4	4.9	5.2
8					7.2	19	39	44	24	8.4	4.9	5.5
9					6.9	17	42	46	22	8.0	4.6	4.9
10					7.7	15	41	53	21	7.6	4.6	4.9
11					7.1	14	42	61	20	7.6	4.6	4.6
12					b7.0	13	45	65	19	7.2	4.6	6.9
13					8.0	12	55	63	19	6.8	4.4	8.4
14					7.4	12	70	58	18	6.9	4.4	6.5
15					6.9	12	69	56	17	7.2	4.4	5.8
16					b6.5	13	61	52	16	7.2	4.4	5.8
17					*6.9	14	58	51	15	7.2	4.4	5.2
18					6.5	15	60	46	14	6.9	4.4	6.1
19					b6.0	16	65	45	14	6.5	4.2	6.5
20					b5.5	19	63	44	13	6.1	4.2	6.5
21					b6.0	22	57	42	12	6.1	4.2	6.1
22					6.5	26	56	41	12	5.8	4.2	5.8
23					6.2	32	53	41	11	5.9	4.2	5.5
24					6.5	35	49	41	11	5.9	4.4	5.5
25					7.7	61	48	42	11	6.1	4.4	5.5
26					9.4	74	50	41	11	6.9	4.4	5.2
27					14	95	53	38	10	7.2	4.4	5.2
28					22	62	49	36	9.8	6.5	4.4	5.2
29					*21	48	45	36	9.3	6.1	4.4	6.9
30					-	48	42	34	9.3	5.8	4.2	6.5
31					-	65		33	-	5.5	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October							
November							
December							
Calendar year							
January	-	-	-	-	-	-	-
February 4-29	217.3	22	5.5	8.36	0.638	0.62	431
March	848	95	11	27.4	2.09	2.41	1,680
April	1,525	70	38	50.8	3.88	4.33	3,020
May	1,430	65	33	46.1	3.52	4.06	2,840
June	538.4	32	9.3	17.9	1.37	1.53	1,070
July	229.4	11	5.5	7.40	.565	.65	455
August	142.2	5.5	4.2	4.59	.350	.40	282
September	171.3	8.4	4.2	5.71	.436	.49	340
The period	-	-	-	-	-	-	10,120

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Elk Creek near Idaho City, Idaho

Location.- Water-stage recorder, lat 43°50'30", long. 115°49'30", in NW¼SE¼ sec. 23, T. 6 N., R. 5 E., 400 feet upstream from Spanish Fork, and 1 mile north of Idaho City.

Drainage area.- 22.3 square miles.

Records available.- January 1939 to February 1940 (discontinued).

Extremes.- Maximum daily discharge during year, 20 second-feet Jan. 2; maximum gage height, 5.99 feet Jan. 13; minimum daily discharge, 0.7 second-foot Oct. 2, 13, 14.
1939-40: Maximum discharge, 97 second-feet Mar. 24, 1939 (gage height, 1.82 feet), from rating curve extended above 75 second-feet; maximum gage height, that of Jan. 13, 1940; minimum discharge not determined.

Remarks.- Records fair except those for periods of ice effect and unstable channel conditions, which are poor. Many diversions above station for placer mining, of which the following affect the flow passing station: Diversion from Elk Creek for Gold Hill Placer on left bank in SE¼ sec. 36, T. 7 N., R. 5 E., 4 3/8 miles above station; records of diversion obtained 1,550 feet below headgate. Return flow enters Elk Creek below station except that wasted through Eldorado Gulch which re-enters Elk Creek in NW¼ sec. 12, T. 6 N., R. 5 E., 2 1/8 miles above station. Two diversions from Elk Creek above station for Rubow Placers (on Spanish Fork) on right bank in NW¼ sec. 13, and SW¼ sec. 12, T. 6 N., R. 5 E., respectively; records of diversion obtained 1⅛ miles and three-quarters of a mile below respective headgates. Return flow from these latter enters Elk Creek through Spanish Fork below station. Net diversion, in acre-feet, from Elk Creek above station determined from these records, is given in the following table.

October.....	487	December.....	86
November.....	183	January.....	2

Station operated in connection with a study of silt movement in Boise River Basin.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	2.9	*4.5	*11	*e8.0							
2	.7	1.3	*5.2	*20	*e8.0							
3	2.2	1.7	4.5	*18	*8.1							
4	1.7	2.0	*5.6	*14	*8.1							
5	1.7	1.7	*4.1	*12	-							
6	2.2	1.3	*3.7	*e7.0	-							
7	2.2	1.7	*4.3	*e8.0	-							
8	1.7	1.3	*5.6	*11	-							
9	2.4	1.8	*8.1	*9.5	-							
10	2.4	2.0	b8.5	*9.5	-							
11	2.9	3.1	*9.5	*9.5	-							
12	3.3	5.4	*7.6	*8.7	-							
13	.7	3.3	*5.4	*e8.0	-							
14	.7	3.9	*5.2	*e7.5	-							
15	2.4	2.7	*5.6	*e7.5	-							
16	1.9	3.6	*8.4	*7.6	-							
17	2.2	7.3	*11	*9.8	-							
18	3.3	5.8	*7.0	e8.0	-							
19	3.1	4.3	*6.3	*e7.0	-							
20	3.1	6.1	*5.2	*7.6	-							
21	2.9	4.5	*4.3	*6.8	-							
22	2.0	4.5	*4.5	*7.3	-							
23	2.2	5.2	*8.1	*7.3	-							
24	3.5	4.7	*7.0	*6.3	-							
25	3.1	5.2	b5.5	*6.8	-							
26	3.3	4.7	*7.3	7.8	-							
27	2.5	3.9	*9.0	*7.9	-							
28	2.7	2.5	*7.6	*8.4	-							
29	2.2	3.6	*11	*e8.0	-							
30	2.5	5.6	*8.4	*e8.0	-							
31	2.5	-	*11	*e8.0	-							

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	71.1	3.5	0.7	2.29	141
November.....	107.6	7.3	1.3	3.59	213
December.....	209.0	11	3.7	6.74	415
Calendar year	-	-	-	-	-
January.....	283.8	20	6.3	9.15	563
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	-	-	-	-	-
June.....	-	-	-	-	-
July.....	-	-	-	-	-
August.....	-	-	-	-	-
September.....	-	-	-	-	-
The period.....	-	-	-	-	1,330

*Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
e Unstable channel conditions; discharge computed on basis of 11 discharge measurements, weather records, and records for nearby stations.

New York canal near Barber, Idaho

Location.- Water-stage recorder in trapezoidal concrete-lined canal section, lat. 43°33', long. 116°07', in SE¼NE¼ sec. 32, T. 3 N., R. 3 E., 1 mile south of Barber and 1¾ miles downstream from headgates at Boise River diversion dam and power plant.

Records available.- February 1939 to September 1940.

Extremes.- Maximum discharge during year, 2,760 second-feet June 5 (gage height, 9.14 feet); no flow for long periods during year.
1939-40: Maximum discharge, 2,890 second-feet May 5, 1939; maximum gage height, 9.17 feet May 20, 1939; no flow for long periods each year.

Remarks.- Records good except those for Jan. 4-7, 10-12, and Feb. 7, which are fair. Canal diverts from Boise River in sec. 3, T. 2 N., R. 3 E., 8 miles below Moore Creek, for irrigation of 166,306 acres in Boise project of Bureau of Reclamation and as a feeder canal for Deer Flat Reservoir near Caldwell (capacity, 177,153 acre-feet). Flow regulated by operation of headgates. Station operated in connection with a study of silt movement in Boise River Basin.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	920	752	1,130	0	0	1,020	1,290	2,160	2,700	1,880	1,250	886
2	0	0	1,140	0	0	819	1,370	2,180	2,700	1,840	1,290	925
3	0	0	1,110	0	0	699	1,280	2,140	2,700	1,770	1,350	988
4	0	0	1,110	e83	0	611	1,170	2,190	2,700	1,680	1,350	1,050
5	0	0	1,120	e147	0	624	960	2,320	2,710	1,630	1,380	610
6	0	0	1,120	e158	0	750	818	2,420	2,710	1,620	1,450	0
7	0	0	1,130	e92	e144	816	900	2,520	2,700	1,600	1,470	0
8	0	0	1,120	0	e230	1,030	762	2,600	2,710	1,560	1,490	0
9	0	0	1,150	0	445	1,040	603	2,640	2,400	1,600	1,500	0
10	0	0	1,180	e37	741	960	674	2,670	2,040	1,620	1,470	0
11	0	0	1,220	e79	960	914	869	2,660	1,840	1,600	1,460	0
12	0	0	1,190	e50	967	946	1,060	2,680	1,900	1,600	1,460	0
13	0	0	1,180	0	1,090	998	988	2,680	2,110	1,580	1,480	0
14	0	0	1,160	0	1,150	1,050	928	2,640	2,360	1,560	1,440	0
15	0	0	1,170	0	1,140	1,040	984	2,640	2,180	1,530	1,390	0
16	0	0	731	0	1,080	1,050	1,040	2,620	1,940	1,470	1,340	0
17	0	0	0	0	1,100	661	1,200	2,610	1,960	1,320	1,320	0
18	0	0	0	0	1,110	0	1,390	2,580	1,960	1,240	1,290	0
19	0	0	0	0	1,080	0	1,600	2,560	1,960	1,230	1,260	0
20	0	69	0	0	1,090	0	1,810	2,570	1,990	1,190	1,230	0
21	0	618	0	0	1,050	0	2,000	2,560	2,020	1,160	1,230	0
22	0	904	0	0	1,080	0	2,180	2,560	1,980	1,130	1,210	0
23	0	1,070	0	0	1,060	293	2,320	2,520	1,960	1,130	1,180	0
24	152	1,090	0	0	904	671	2,420	2,520	1,950	1,220	1,170	0
25	732	1,080	0	0	922	822	2,520	2,600	1,960	1,220	1,130	315
26	998	1,080	0	0	1,040	1,260	2,580	2,620	2,020	1,170	1,110	674
27	1,190	1,130	0	0	1,120	1,520	2,640	2,630	2,010	1,100	1,080	834
28	1,370	1,170	0	0	1,100	1,600	2,560	2,620	2,000	1,050	1,050	819
29	1,400	1,160	0	0	1,140	1,480	2,320	2,640	1,950	1,050	1,080	819
30	1,280	1,140	0	0	-	1,340	2,220	2,660	1,930	1,130	1,040	825
31	1,180	-	0	0	-	1,320	-	2,680	-	1,240	1,010	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,222	1,400	0	297	18,290
November	11,263	1,170	0	375	22,340
December	17,961	1,220	0	579	35,630
Calendar year	-	-	-	-	-
January	646	158	0	20.8	1,280
February	21,743	1,150	0	750	43,130
March	25,334	1,600	0	817	50,250
April	45,456	2,640	603	1,515	90,160
May	78,690	2,680	2,140	2,538	156,100
June	66,050	2,710	1,930	2,202	131,000
July	43,720	1,880	1,050	1,410	86,720
August	39,960	1,500	1,010	1,289	79,260
September	8,745	1,050	0	292	17,350
Water year 1939-40	368,790	2,710	0	1,003	731,500

e Water level below intake; discharge computed on basis of staff-gage reading or records of gate changes at diversion dam.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Cottonwood Gulch at Boise, Idaho

Location.- Water-stage recorder and broad-crested wooden control with trapezoidal notch for low flows, lat. 43°37', long. 116°11', on United States Military Reservation, 1 mile east of Boise post office.

Drainage area.- 16.0 square miles.

Records available.- January 1939 to September 1940.

Extremes.- Maximum discharge during year, 62 second-feet Mar. 31; maximum gage height, 4.09 feet Feb. 14; minimum discharge, 0.02 second-foot Aug. 30 (gage height, 3.10 feet).
1939-40: Maximum discharge, 62 second-feet Mar. 19, 1939, Mar. 31, 1940; maximum gage height, that of Feb. 14, 1940; no flow Aug. 25, 1939.

Remarks.- Records good except those for Oct. 1 to Nov. 9 and June 24 to Sept. 30, which are fair. No diversion. Station operated in connection with a study of silt movement in Boise River Basin.

Rating tables, water year 1939-40 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 20-24)

Oct. 1 to Feb. 20				Feb. 20 to June 5				June 5 to Sept. 30	
3.15	0.03	3.70	1.68	3.05	0.84	3.50	7.90	3.05	0.01
3.25	.12	3.90	3.28	3.15	1.70	3.70	16.40	3.15	.05
3.35	.28	4.10	6.00	3.25	2.75	3.90	36.0	3.25	.20
3.50	.71			3.35	4.25			3.35	.48
								3.45	1.00

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.06	0.05	0.57	1.6	1.8	23	35	5.2	0.84	0.09	0.04	0.04
2	.06	.05	.57	2.2	1.8	20	34	4.8	.92	.07	.04	.04
3	.05	.05	.57	3.6	2.0	19	27	4.6	.92	.07	.04	.04
4	.05	.05	.64	3.4	2.9	16	24	4.4	1.2	.07	.04	.05
5	.05	.05	.68	2.6	2.5	15	26	4.1	1.0	.07	.04	.05
6	.05	.11	.68	2.0	3.7	13	20	3.9	.94	.06	.04	.04
7	.05	.13	.68	1.6	4.0	12	19	3.6	.94	.06	.04	.04
8	.05	.05	.71	1.7	3.7	12	18	3.2	.94	.06	.04	.04
9	.05	.08	.87	2.3	3.6	12	20	3.0	.76	.06	.04	.04
10	.05	.11	.91	2.2	4.6	12	16	2.6	.61	.06	.04	.05
11	.05	.11	.95	1.8	5.1	11	16	2.5	.48	.06	.04	.04
12	.05	.11	.91	1.6	4.4	11	15	2.4	.35	.06	.04	.04
13	.05	.11	.87	1.2	4.4	10	15	2.5	.30	.06	.04	.04
14	.05	.12	.79	1.4	5.5	9.6	14	2.2	.30	.06	.04	.04
15	.05	.12	.75	1.2	5.1	9.3	14	2.3	.22	.06	.04	.04
16	.05	.12	.83	1.1	4.4	9.3	12	2.2	.18	.06	.04	.04
17	.05	.12	1.1	1.1	4.4	8.9	11	2.1	.15	.06	.04	.04
18	.05	.12	.95	.87	4.6	8.6	10	1.9	.13	.06	.04	.04
19	.05	.13	.91	.83	4.3	8.6	9.3	1.8	.11	.05	.04	.05
20	.05	.13	.95	1.0	4.2	8.2	8.9	1.7	.11	.05	.04	.05
21	.05	.13	.91	.95	4.1	7.9	7.9	1.6	.10	.05	.04	.04
22	.05	.15	.95	1.0	5.0	7.9	7.3	1.5	.10	.05	.04	.04
23	.05	.23	.91	1.0	6.0	7.6	6.4	1.3	.10	.05	.04	.04
24	.05	.38	.87	1.1	7.0	7.3	6.2	1.2	.09	.05	.04	.04
25	.05	.40	.68	1.1	11	8.6	6.2	1.2	.09	.06	.04	.04
26	.05	.46	.68	2.2	15	11	6.2	1.2	.09	.05	.04	.04
27	.05	.54	.71	2.9	26	12	7.0	1.2	.09	.05	.04	.04
28	.05	.57	.75	2.4	34	11	7.9	1.2	.09	.05	.04	.04
29	.05	.57	.79	2.2	31	11	7.9	1.1	.09	.05	.04	.05
30	.05	.54	.87	2.0	-	12	6.2	.92	.09	.05	.04	.05
31	.05	-	1.1	1.9	-	30	-	.84	-	.05	.04	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1.57	0.06	0.05	0.051	3.1
November	5.89	.57	.05	.196	12
December	25.11	1.1	.57	.810	50
Calendar year	-	-	-	-	-
January	54.05	3.6	.83	1.74	107
February	216.1	34	1.8	7.45	429
March	374.8	30	7.3	12.1	743
April	433.4	35	6.2	14.4	860
May	74.26	5.2	.84	2.40	147
June	12.33	1.2	.09	.411	24
July	1.81	.09	.05	.058	3.6
August	1.24	.04	.04	.040	2.5
September	1.27	.05	.04	.042	2.5
Water year 1939-40	1,201.83	35	.04	3.28	2,380

Deer Flat Reservoir near Caldwell, Idaho

Location.- Staff gages attached to outlet structures at each end of reservoir. One gage is at lower embankment, lat. 43°35', long. 116°45', in SE¼ sec. 19, T. 3 N., R. 3 W., 5 miles south and 2 miles west of Caldwell; the other is at upper embankment, lat. 43° 34', long. 116°39', in NW¼ sec. 36, T. 3 N., R. 3 W., 1 mile south and 4 miles west of Nampa. Zero of gage is 2,500.5 feet above mean sea level (surveys of Bureau of Reclamation).

Records available.- October 1917 to September 1940.

Extremes.- Maximum contents during year, 177,700 acre-feet Apr. 17 (gage height, 30.06 feet); minimum, 16,610 acre-feet Oct. 19, 20.

1917-40: Maximum contents, 178,900 acre-feet Apr. 27, 28, 1922, Apr. 24, 1932, (gage height, 30.18 feet); minimum, 5,390 acre-feet Oct. 22, 1924.

Remarks.- Reservoir is formed by two earth embankments; dams were completed and storage began in 1908. Capacity, 177,150 acre-feet, between gage heights 0.0 foot (sill of outlet gates) and 30.0 feet (maximum operating level). Dead storage about 13,000 acre-feet. Below gage height 12.0 feet reservoir divides into two pools. In addition to water received from local drainage, reservoir receives water from Boise River through New York canal of Boise project. Water is used for irrigation of lower project lands. Figures given herein represent usable contents. Gage read once daily.

Cooperation.- Gage-height record and capacity table furnished by Board of Control for Boise project.

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20,480	28,570	54,180	86,090	86,720	124,000	164,100	177,300	144,800	103,000	64,490	25,010
2	20,300	30,910	56,390	86,300	86,720	125,900	166,200	177,300	144,600	101,300	62,820	27,570
3	19,960	31,420	58,760	86,370	86,650	127,300	168,500	177,500	144,300	100,100	61,290	27,080
4	19,540	31,580	60,870	86,370	86,650	128,600	170,600	177,500	144,200	98,570	59,480	26,550
5	19,570	31,770	63,190	86,370	86,650	129,600	172,700	176,800	143,900	97,540	57,980	26,560
6	19,600	31,930	65,360	86,370	86,650	130,500	173,600	176,300	143,900	96,080	56,450	26,600
7	19,500	31,990	67,370	86,790	86,650	131,600	174,400	176,200	143,900	94,770	54,760	26,640
8	19,460	32,060	69,270	87,000	86,650	132,800	175,300	175,500	143,900	93,400	53,370	26,790
9	19,430	32,080	71,460	87,070	86,720	134,600	176,100	175,000	143,900	92,240	51,670	26,890
10	19,190	32,100	73,010	87,210	87,070	136,500	176,500	174,200	143,600	90,390	49,980	26,980
11	19,040	32,260	74,780	87,210	87,770	138,100	176,400	172,600	142,300	88,970	48,650	27,050
12	18,840	32,480	76,960	87,070	89,180	139,400	176,400	171,300	140,700	87,490	47,450	27,070
13	18,460	32,690	79,110	87,280	90,740	141,000	177,100	169,700	138,800	85,660	45,670	27,030
14	17,970	32,860	81,270	87,140	92,890	142,600	177,400	168,300	136,800	84,430	44,180	27,070
15	17,680	32,930	83,460	87,140	95,060	144,500	177,500	166,700	135,300	82,780	42,760	27,030
16	17,320	33,090	85,610	87,070	97,400	146,100	177,600	164,900	133,400	81,820	41,610	27,030
17	17,020	33,200	87,490	87,070	99,020	147,900	177,700	163,200	131,500	80,800	40,440	27,030
18	16,800	33,340	87,910	87,070	101,200	149,600	177,400	161,900	129,400	79,580	39,390	26,960
19	16,610	33,440	87,560	86,930	103,000	149,400	176,900	160,300	127,400	78,440	38,590	26,990
20	16,610	33,530	87,350	86,790	104,900	149,200	175,900	158,900	125,200	77,360	37,650	27,080
21	16,680	33,630	87,210	86,790	107,000	149,000	175,800	157,800	122,800	76,500	36,700	27,120
22	16,680	33,900	87,070	86,790	108,800	148,700	175,800	156,600	120,600	75,640	35,600	27,220
23	16,710	35,690	86,930	86,650	110,800	148,400	176,200	155,200	118,100	74,720	34,550	27,440
24	16,650	37,970	86,790	86,650	112,700	148,200	176,700	154,000	115,800	73,860	33,740	27,650
25	16,680	40,370	86,650	86,720	114,300	149,000	177,000	152,800	114,100	72,820	33,060	27,740
26	17,000	42,720	86,580	86,720	115,700	150,500	177,100	150,900	112,000	71,330	32,290	27,740
27	17,970	44,870	86,440	86,720	118,100	153,100	176,900	149,500	109,900	70,230	31,770	27,580
28	19,650	47,020	86,370	86,860	120,400	155,300	176,800	148,500	107,900	69,270	31,050	27,460
29	21,890	49,540	86,230	86,790	121,900	157,500	177,400	147,700	106,300	68,250	30,250	27,460
30	23,970	52,010	86,090	86,790	-	159,700	177,400	146,700	104,200	67,180	29,370	27,740
31	26,300	-	86,090	86,720	-	162,100	-	146,000	-	65,960	28,530	-

Monthly gage height and contents, water year October 1939 to September 1940

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30 (Upper)	7.16	20,640	-
(Lower)	6.96		
Oct. 31 (Upper)	8.60	26,300	+5,660
(Lower)	8.30		
Nov. 30	13.64	52,010	+25,710
Dec. 31	19.02	86,090	+34,080
Calendar year 1939	-	-	-2,250
Jan. 31	19.11	86,720	+630
Feb. 29	23.78	121,900	+35,180
Mar. 31	28.42	162,100	+40,200
Apr. 30	30.02	177,400	+15,300
May 31	26.63	146,000	-31,400
June 30	21.52	104,200	-41,800
July 31	15.97	65,920	-38,280
Aug. 31 (Upper)	9.04	28,530	-37,390
(Lower)	8.90		
Sept. 30 (Upper)	8.86	27,740	-790
(Lower)	8.72		
Water year 1939-40	-	-	+7,100

Malheur River near Drewsey, Oreg.

Location.- Water-stage recorder, lat. 43°47', long. 118°20', in SE¼ sec. 31, T. 20 S., R. 36 E., 300 feet downstream from crossing of Burns-Ontario highway, half a mile downstream from Cottonwood Creek, and 3 miles southeast of Drewsey. Datum of gage is 3,479.29 feet above mean sea level (general adjustment of 1929).

Drainage area.- 982 square miles.

Records available.- June to December 1920, April to September 1921, June 1939 to September 1940. April to September 1923 and June 1926 to June 1939, at site 7 miles downstream.

Average discharge.- 14 years (1926-40), 131 second-feet.

Extremes.- Maximum discharge during year, 4,290 second-feet Feb. 27 (gage height, 11.35 feet), from rating curve extended above 2,500 second-feet; minimum, 1.0 second-foot Aug. 11, 12.

1920-21, 1923, 1926-40: Maximum discharge, that of Feb. 27, 1940; no flow at times.

Remarks.- Records fair. Several small diversions above station.

Rating tables, water year 1939-40, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 5

2.6	1.3	2.7	0.2	3.5	72	5.0	436	8.0	1,680
2.8	6.6	2.8	2.1	3.8	128	5.5	589	9.0	2,330
3.0	16	3.0	13	4.2	217	6.0	755	10.0	3,080
3.2	31	3.2	32	4.6	320	7.0	1,180	11.0	3,930
3.4	54								

Feb. 6 to Sept. 30

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	28	40	86	70	1,420	1,800	288	72	3.4	2.5	2.5
2	6	27	40	106	66	935	1,370	260	84	3.4	3.0	3.4
3	7	27	42	137	70	775	1,140	230	86	3.8	3.4	3.0
4	6	27	41	129	91	574	1,020	232	74	4.2	3.0	3.4
5	4.2	28	41	94	89	481	915	242	66	3.8	3.0	2.5
6	7	21	39	68	372	406	835	217	53	4.7	3.0	2.5
7	12	23	41	62	401	376	795	188	45	6	3.0	2.5
8	14	28	43	57	193	690	935	163	44	6	2.1	2.5
9	12	28	49	67	262	620	1,020	152	40	5	1.9	3.4
10	11	27	63	74	573	436	1,020	150	40	5	1.3	24
11	10	26	66	70	391	323	875	159	36	5	1.2	49
12	9	32	57	75	175	272	815	179	29	4.7	1.2	17
13	9	34	48	68	152	254	755	195	26	3.4	1.2	12
14	8	34	46	62	134	250	775	193	23	3.4	1.3	26
15	9	34	48	52	110	315	775	182	22	3.4	1.7	28
16	8	31	49	41	100	345	702	177	21	3.4	1.9	21
17	8	28	62	38	104	406	604	152	18	3.8	1.9	18
18	7	30	67	41	89	406	558	152	17	3.4	2.1	17
19	8	32	55	49	93	376	512	138	14	2.1	2.5	23
20	9	34	54	47	75	421	496	134	13	2.1	2.1	30
21	10	42	52	47	69	436	466	134	11	2.1	2.1	33
22	10	34	52	46	79	451	421	124	10	2.1	2.1	30
23	10	38	40	46	72	496	391	118	8	2.1	2.1	28
24	10	38	b48	49	84	542	368	112	8	2.1	1.9	28
25	12	39	b38	50	328	652	345	106	7	1.9	1.7	28
26	12	43	27	55	1,220	1,070	337	112	6	1.7	1.7	28
27	23	47	23	59	2,780	2,330	312	110	5	1.9	1.5	27
28	18	46	26	62	3,660	1,680	285	104	3.4	1.9	1.3	28
29	22	40	44	64	2,840	1,320	315	95	3.4	2.5	1.3	36
30	29	36	57	66	-	2,060	293	89	3.4	3.0	1.9	33
31	29	-	64	63	-	2,470	-	66	-	3.0	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	353.4	29	4.2	11.4	701
November	989	47	21	33.0	1,960
December	1,462	67	23	47.2	2,900
Calendar year 1939	35,859.3	995	0	98.2	71,130
January	2,030	137	38	65.5	4,030
February	14,742	3,660	66	508	29,240
March	23,568	2,470	250	761	46,790
April	21,250	1,800	285	708	42,150
May	4,953	288	66	160	9,820
June	888.2	86	3.4	29.6	1,760
July	104.3	6	1.7	3.36	207
August	63.4	3.4	1.2	2.05	126
September	589.7	49	2.5	19.7	1,170
Water year 1939-40	71,013.0	3,660	1.2	194	140,900

Peak discharge.- Feb. 6 (11:30 p.m.) 1,020 sec.-ft.; Feb. 27 (10 p.m.) 4,290 sec.-ft.; Mar. 27 (1:30 p.m.) 3,000 sec.-ft.; Mar. 31 (4:30 a.m.) 3,080 sec.-ft.

b Stage-discharge relation affected by ice.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Malheur River below Warmsprings Reservoir, near Riverside, Oreg.

Location.- Hook gage, lat. 43°34', long. 118°12', in SW¼ sec. 17, T. 23 S., R. 37 E., 1 mile downstream from Warmsprings Dam, 3 miles upstream from South Fork, and 4 miles northwest of Riverside.

Drainage area.- 1,100 square miles.

Records available.- December 1914 to July 1917, March 1919 to September 1940. January 1908 to March 1907 and December 1908 to September 1910 at site at Riverside, 4 miles downstream, in reports of U. S. Geological Survey. October 1910 to November 1914 at site at Riverside in reports of State engineer.

Average discharge.- 28 years (1909-16, 1919-40), 161 second-feet.

Extremes.- Maximum discharge observed during year, 632 second-feet June 20-28 (gage height, 5.04 feet); no flow Oct. 12 to Apr. 3, Sept. 18-30.
1906-7, 1908-17, 1919-40: Maximum discharge observed, 5,490 second-feet Mar. 2, 1910; no flow at times.

Remarks.- Records good. Several small diversions above station for irrigation. Flow completely regulated since November 1919 by Warmsprings Dam. Gage read once daily.

Cooperation.- Gage readings furnished by Bureau of Reclamation.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

2.8	1.0	3.2	13	3.6	48	4.0	130	4.6	360
3.0	5.3	3.4	26	3.8	82	4.3	225	5.1	665

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36						0	292	306	475	142	415
2	36						0	283	261	475	158	415
3	36						0	257	233	475	201	415
4	47						3.5	253	225	415	265	360
5	9.5						7.0	237	201	415	310	274
6	1.0						7.0	229	201	415	335	205
7	.5						9.5	249	209	388	415	138
8	.5						12	415	245	257	475	115
9	.5						10	415	245	257	475	110
10	.5						11	505	245	245	475	110
11	.5						11	535	265	241	475	110
12	0						20	568	335	257	475	110
13	0						26	568	445	292	505	128
14	0						118	568	505	292	505	110
15	0						335	568	535	288	505	110
16	0						475	568	568	274	505	76
17	0						568	600	568	265	505	36
18	0						600	568	568	249	535	14
19	0						600	568	600	229	535	0
20	0						568	568	632	213	568	0
21	0						505	535	632	152	568	0
22	0						475	535	632	132	568	0
23	0						445	505	632	115	568	0
24	0						475	475	632	115	568	0
25	0						415	445	632	130	535	0
26	0						310	415	632	130	505	0
27	0						310	415	632	140	505	0
28	0						301	415	600	145	505	0
29	0						292	415	568	145	505	0
30	0				-		296	388	505	145	475	0
31	0	-			-		-	360	-	142	445	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	168.0	47	0	5.42	333
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1939	61,181.0	665	0	168	121,400
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	7,205.0	600	0	240	14,290
May	13,717	600	229	442	27,210
June	13,489	632	201	450	26,760
July	7,908	475	115	255	15,690
August	14,111	568	142	455	27,990
September	3,251	415	0	108	6,450
Water year 1939-40	59,841	632	0	164	118,700

UNITED STATES DEP. 'MENT OF THE INTERIOR
Geological Survey

Malheur River near Hope, Oreg.

Location.- Water-stage recorder, lat. 43°57', long. 117°29', in SW¼ sec. 5, T. 19 S., R. 43 E., half a mile upstream from intake of Vines canal and 6½ miles west of Hope.

Drainage area.- 3,030 square miles.

Records available.- May 1919 to September 1940 (incomplete prior to October 1922).

Average discharge.- 17 years (1922-25, 1926-40), 199 second-feet.

Extremes.- Maximum discharge during year, 5,930 second-feet Feb. 28 (gage height, 6.90 feet), from rating curve extended above 2,800 second-feet; minimum, 20 second-feet Oct. 25, 26.

1919-40: Maximum discharge, 8,100 second-feet Feb. 5, 1925 (gage height, 8.1 feet), from rating curve extended above 3,000 second-feet; minimum, 3.5 second-feet Sept. 2, 1919 (gage height, 0.02 foot).

The two greatest floods known occurred in March 1894 and March 1910.

Remarks.- Records good except those for periods of shifting control, Oct. 1-13, May 9 to Sept. 20, which are fair, and those for periods of ice effect, which are poor. Vale-Oregon canal diverts at Namorf. No other large diversions above station tut many small ones. Flow regulated by Warmsprings Reservoir and Agency Valley Reservoir (see p.159).

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	41	36	39	85	1,100	1,940	455	165	237	72	151
2	49	42	36	41	75	694	1,670	440	160	213	65	143
3	52	42	36	42	65	604	1,320	405	133	209	75	123
4	55	40	35	46	116	480	1,100	287	118	209	87	135
5	64	40	35	45	155	371	1,140	219	104	180	110	184
6	76	39	36	44	183	296	982	202	100	184	114	102
7	80	39	36	42	445	248	826	133	100	190	108	82
8	60	39	36	42	261	300	766	102	98	180	112	75
9	52	39	37	41	167	367	812	184	121	133	138	67
10	41	39	39	42	141	381	875	213	138	91	146	54
11	41	38	41	41	233	271	945	241	133	82	148	48
12	40	36	41	37	164	213	786	244	140	89	138	44
13	37	37	*40	35	147	180	571	248	148	114	138	42
14	35	36	39	b31	121	160	576	237	199	160	165	38
15	34	35	39	b27	111	148	639	237	237	171	165	29
16	34	35	38	b24	107	140	875	237	248	174	157	59
17	30	35	38	b25	114	138	945	237	263	177	160	34
18	27	34	38	b29	107	140	982	244	244	174	160	53
19	24	34	35	b36	97	140	982	244	252	154	165	58
20	25	34	34	b37	95	135	945	226	260	123	157	102
21	24	35	34	34	87	133	910	230	304	118	162	47
22	22	34	34	b33	87	135	875	213	304	100	187	36
23	21	34	34	31	82	162	819	213	296	73	193	34
24	22	35	34	40	80	425	746	213	300	65	196	33
25	20	35	40	*b34	103	367	682	202	292	58	202	31
26	21	37	26	38	495	490	532	184	263	64	187	28
27	36	36	34	39	2,840	720	532	196	219	83	165	26
28	40	36	34	93	3,920	1,420	510	184	226	85	157	36
29	40	36	36	114	2,230	1,470	500	177	230	83	157	a42
30	41	36	40	150	-	1,320	475	187	233	87	162	57
31	37	-	39	95	-	2,110	-	171	-	70	165	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,225	80	20	39.5	2,430
November	1,108	42	34	36.9	2,200
December	1,130	41	26	36.5	2,240
Calendar year 1939	43,761	1,320	20	120	86,800
January	1,447	150	24	46.7	2,870
February	12,913	3,920	65	445	25,610
March	15,258	2,110	133	492	30,260
April	26,258	1,940	475	875	52,080
May	7,205	455	102	232	14,290
June	6,028	304	98	201	11,960
July	4,130	237	58	133	8,190
August	4,513	202	65	146	8,950
September	1,993	184	26	66.4	3,950
Water year 1939-40	83,208	3,920	20	227	165,000

Peak discharge.- Feb. 28 (1 a.m.) 5,930 sec.-ft.; Mar. 31 (10 a.m.) 2,410 sec.-ft.

*Winter discharge measurement made on this day.

a no gage-height record; discharge computed on basis of weather records.

b Stage-discharge relation affected by ice.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Reservoirs in Malheur River Basin, Oreg.

Warmsprings Reservoir.- Tape gage, lat. 43°35', long. 118°12', in SE¼ sec. 8, T. 23 S., R. 37 E., at dam on Malheur River, 4 miles upstream from South Fork of Malheur River and 4 miles northwest of Riverside. Datum of gage is 3,327 feet above mean sea level (surveys of Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level. Drainage area, 1,100 square miles. Records available, January 1920 to September 1940. Maximum contents observed during year, 193,800 acre-feet Apr. 22 (elevation, 3,406.82 feet); minimum observed, 65,460 acre-feet Oct. 5-10, 27, 28 (elevation, 3,371.85 feet). Maximum contents observed during period 1920-40, that of Apr. 22, 1940; no storage Sept. 18 to Nov. 1, 1929, Aug. 26 to sometime in November 1935.

Revision.- Beginning October 1939, capacity table used has been slightly revised on basis of data furnished by Bureau of Reclamation. Previously published contents of 194,300 acre-feet for elevation of 3,406.40 feet on May 19-22, 1938, reduced to 191,800 acre-feet by revised table.

Reservoir is formed by concrete arch dam; storage began in 1919. Capacity, 190,000 acre-feet (revised) between elevations 3,327 feet (bottom of outlet tunnel) and 3,406 feet (top of 5-foot flashboards). Dead storage, 1,400 acre-feet below elevation 3,327 feet. Figures given herein represent usable capacity. In 1926 a half interest in reservoir was purchased by the Federal Government for Vale project of Bureau of Reclamation. Gage readings furnished by Bureau of Reclamation. Water used to irrigate lands on both sides of river between Namorf and Ontario.

Agency Valley Reservoir.- Pressure gage with mercury column, lat. 43°55', long. 118°09', in SW¼ sec. 15, T. 19 S., R. 37 E., at dam on North Fork of Malheur River, a quarter of a mile northwest of Beulah. Gage readings are elevations above mean sea level by original surveys of Bureau of Reclamation, or 7.72 feet less than elevations above mean sea level by 1929 general adjustment. Drainage area, 420 square miles. Records available, December 1935, when storage began, to September 1940. Maximum contents observed during year, 61,060 acre-feet Mar. 27 (elevation, 3,340.60 feet); minimum observed, 29,410 acre-feet Sept. 18 (elevation, 3,320.9 feet). Maximum contents observed during period 1935-40, that of Mar. 27, 1940; minimum observed since full capacity was attained on Apr. 9, 1938, that of Sept. 18, 1940.

Reservoir is formed by earthfill rock-faced dam; storage began in 1935. Capacity, 59,920 acre-feet between elevations 3,263.21 feet (bottom of outlet tunnel) and 3,340 feet (top of 17-foot spillway gates); with gates lowered the capacity is 32,220 acre-feet. No dead storage. Figures given herein represent usable contents. Water is used for irrigation of lands below Juntura, on Vale project of Bureau of Reclamation. Capacity table and daily gage readings furnished by Bureau of Reclamation.

Other reservoirs.- There are several other reservoirs in the Malheur River Basin, all with less than 3,500 acre-feet capacity except Willow Creek No. 3 Reservoir near Malheur, which has a capacity of 49,000 acre-feet.

Monthly elevation and contents, water year October 1939 to September 1940

Date	Warmsprings Reservoir			Agency Valley Reservoir		
	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	3,372.06	66,200	-	3,325.15	35,240	-
Oct. 31	3,371.90	65,610	-590	3,323.25	32,570	-2,670
Nov. 30	3,372.47	67,260	+1,650	3,324.90	34,880	+2,310
Dec. 31	3,373.56	70,480	+3,220	3,326.95	37,880	+3,000
Calendar year 1939	-	-	-63,520	-	-	+26,990
Jan. 31	3,375.15	75,260	+4,780	3,328.95	40,900	+3,020
Feb. 29	3,384.57	105,500	+30,240	3,334.60	50,120	+9,220
Mar. 31	3,398.46	157,400	+51,900	3,340.30	60,490	+10,370
Apr. 30	3,406.39	191,800	+34,400	3,339.95	59,820	-670
May 31	3,402.08	172,600	-19,200	3,338.90	57,860	-1,960
June 30	3,395.40	145,000	-27,600	3,333.00	47,400	-10,460
July 31	3,390.35	125,700	-19,300	3,323.85	33,400	-14,000
Aug. 31	3,381.47	95,250	-30,450	3,321.00	29,540	-3,860
Sept.30	3,379.35	88,420	-6,830	3,321.15	29,740	+200
Water year 1939-40	-	-	+22,220	-	-	-5,500

North Fork of Malheur River above Agency Valley Reservoir, near Beulah, Oreg.

Location.- Water-stage recorder, lat. 43°58', long. 118°11', in sec. 33, T. 18 S., R. 37 E., at M. W. Scott's ranch, about 3 miles upstream from Warm Springs Creek and 4 miles northwest of Agency Valley Dam and Beulah.

Records available.- January to September 1914, June 1936 to September 1940.

Extremes.- Maximum discharge during year, 975 second-feet Mar. 26 (gage height, 4.60 feet); minimum daily, 20 second-feet Dec. 27.
1914, 1936-40: Maximum discharge recorded, that of Mar. 26, 1940; minimum discharge, 19 second-feet Aug. 5, 1939.

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

Rating tables, water year 1939-40, except periods of ice effect, (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 24				Mar. 25 to Sept. 30			
0.8	27	1.9	209	0.8	25	2.2	265
1.0	50	2.2	282	1.0	43	2.5	341
1.2	77	2.5	357	1.2	68	3.0	479
1.4	108	3.0	483	1.4	99	3.5	625
1.6	144	3.7	685	1.6	134	4.5	940
				1.9	195		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	38	37	59	40	238	772	225	a110	51	31	31
2	32	40	38	64	39	282	628	202	a108	44	31	30
3	32	40	38	73	45	182	543	202	102	42	33	30
4	31	34	38	58	46	156	511	218	108	42	32	43
5	35	29	35	39	44	140	496	209	97	40	32	45
6	36	40	42	30	60	125	448	193	82	37	31	38
7	35	44	36	42	63	154	457	184	78	38	31	37
8	34	39	40	50	55	250	457	175	78	38	30	35
9	34	35	50	49	66	179	462	169	74	38	30	35
10	32	31	58	49	102	146	429	180	70	36	30	43
11	32	44	50	43	60	113	423	204	65	36	28	36
12	32	35	*38	38	39	110	426	220	64		30	40
13	32	36	45	39	53	110	457	225	63		29	51
14	32	38	43	35	50	131	508	213	63		29	51
15	32	30	44	29	50	150	491	204	63		29	47
16	32	34	53	31	48	173	434	193	60		30	48
17	32	35	50	42	46	188	390		58		30	48
18	32	32	42	56	50	182	379		55		29	45
19	34	36	44	50	50	198	376		54	a34	29	
20	34	37	43	48	37	228	384		51		30	
21	34	36	40	b47	46	240	352		49		30	
22	32	43	29	b46	53	254	331		50		30	
23	32	38	39	b45	44	274	318	a130	50		30	a47
24	35	36	42	*b44	45	302	300		48		29	
25	36	37	b35	b42	70	501	285		45		31	
26	32	40	b25	b41	202	722	272		44		31	
27	42	37	b20	b40	494	823	255		45		30	
28	39	30	b25	b41	667	682	248		45		31	43
29	39	30	46	42	432	739	246		44		30	44
30	38	42	50	42	-	823	232		47		30	45
31	37	-	53	44	-	793	-		47		30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,052	42	31	33.9	2,090
November	1,096	44	29	36.5	2,170
December	1,268	58	20	40.9	2,520
Calendar year 1939	26,973	540	20	73.9	53,500
January	1,398	73	29	45.1	2,770
February	3,096	667	37	107	6,140
March	9,588	823	110	309	19,020
April	12,310	772	232	410	24,420
May	5,166	225	-	167	10,250
June	1,970	110	44	65.7	3,910
July	1,122	51	-	36.2	2,230
August	936	33	28	30.2	1,860
September	1,288	51	30	42.9	2,550
Water year 1939-40	40,290	823	20	110	79,930

Peak discharge.- Feb. 28 (5:30 p.m.) 912 sec.-ft.; Mar. 26 (8 p.m.) 975 sec.-ft.; Mar. 29 (2:30 p.m.) 849 sec.-ft.; Mar. 30 (7 p.m.) 926 sec.-ft.; Apr. 1 (4 a.m.) 860 sec.-ft.

*Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Agency Valley Reservoir at Beulah.

b Stage-discharge relation affected by ice.

9-288 February 1938 Geological Survey U.S. GOVERNMENT PRINTING OFFICE 941—D 186555

North Fork of Malheur River at Beulah, Oreg.

Location.- Staff gage, lat. 43°54', long. 118°09', in NE¼ sec. 22, T. 19 S., R. 37 E., at Beulah, a quarter of a mile downstream from Agency Valley Dam and 12 miles northwest of Juntura.

Drainage area.- 420 square miles.

Records available.- January 1936 to September 1940. March 1909 to June 1912 and November 1913 to July 1914, at site 6 miles downstream. June 1926 to December 1935, at site three-quarters of a mile downstream, below intakes of two canals with combined capacity of about 10 second-feet.

Extremes.- Maximum discharge observed during year, 2,140 second-feet Apr. 13 (gage height, 7.0 feet, from floodmark), by computation of flow over dam and through valves; no flow at times.
1909-12, 1913-14, 1926-40: Maximum discharge, 5,910 second-feet Mar. 20, 1910; minimum prior to construction of dam, 5 second-feet Dec. 28, 1910, Jan. 26, 27, 1911.

Remarks.- Records fair. Flow regulated by Agency Valley Reservoir (see p.159). Small diversions for irrigation above station; practically entire summer flow is diverted below station and above Juntura.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	147						1,060	229	218	214	238	21
2	147						1,060	229	199	208	238	21
3	127						890	137	199	208	203	22
4	127						695	142	203	208	156	22
5	127					a0.4	688	154	208	208	109	53
6	127						632	93	208	208	67	53
7	127						551	106	208	208	55	53
8	127						544	113	208	208	55	34
9	127					.5	556	149	208	208	55	38
10	127						690	193	208	222	55	39
11	127						688	220	208	238	55	41
12	127					a.8	459	218	208	231	55	39
13	127						480	218	208	227	55	39
14	127						459	218	208	227	55	66
15	127				a0.3	1.0	461	218	208	227	53	66
16	127			a0.1		1.0	464	218	208	227	51	66
17	127					1.0	459	218	208	227	51	43
18	90					1.0	451	218	208	227	51	43
19	0					1.0	454	218	208	227	51	43
20	0					50	454	218	208	227	51	31
21	0					60	443	218	208	227	51	21
22	0					612	438	218	208	227	51	21
23	0					302	360	218	208	227	50	20
24	0					292	322	218	172	227	49	18
25	0					504	322	218	168	227	48	33
26	0					806	310	218	168	231	41	43
27	0					1,360	298	218	168	238	38	43
28	0					1,200	286	218	201	238	38	43
29	0					860	281	218	218	238	27	43
30	0				-	905	229	218	218	238	25	43
31	0				-	1,060	-	218	-	238	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,289	147	0	73.8	4,540
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1939	27,074	374	0	74.2	53,700
January	3.1	-	-	.1	6
February	8.7	-	-	.3	17
March	8,023.7	1,360	-	259	15,910
April	15,484	1,060	229	516	30,710
May	6,125	229	93	198	12,150
June	6,084	218	168	203	12,070
July	6,941	238	208	224	13,770
August	2,202	238	25	71.0	4,370
September	1,161	66	18	38.7	2,300
Water year 1939-40	48,321.5	1,360	0	132	95,840

a No gage-height record; discharge computed on basis of field estimates Jan. 24, Mar. 9, and operation records of Agency Reservoir.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

South Fork of Payette River near Garden Valley, Idaho

Location.- Water-stage recorder, lat. 44°04', long. 115°56', in sec. 1, T. 8 N., R. 4 E., at Garden Valley ranger station, 300 feet upstream from Station Creek, 2.7 miles southeast of Garden Valley, and 5.9 miles upstream from Middle Fork of Payette River.

Drainage area.- 779 square miles.

Records available.- May 1921 to September 1940.

Average discharge.- 16 years (1924-40), 1,150 second-feet.

Extremes.- Maximum discharge during year, 4,540 second-feet May 13 (gage height, 5.04 feet); minimum, 79 second-feet Dec. 26 (gage height, 0.72 foot), from rating curve extended below 280 second-feet; minimum daily, 230 second-feet Dec. 26.
1921-40: Maximum discharge observed, 10,600 second-feet May 26, 1928 (gage height, 8.0 feet); minimum discharge, 75 second-feet Dec. 15, 1935, Jan. 26, 1936 (gage height, 0.70 foot), from rating curve extended below 280 second-feet; minimum daily, 217 second-feet Jan. 26, 1936.

Remarks.- Records excellent. A few diversions above station. Since Nov. 2, 1930, flow has been regulated by Deadwood Reservoir (see p.167). Slight regulation by Grimes Pass power plant.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

1.0	150	1.9	620	2.8	1,390	3.7	2,490	4.6	3,840
1.3	270	2.2	845	3.1	1,730	4.0	2,910	5.0	4,540
1.6	430	2.5	1,100	3.4	2,100	4.3	3,350		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	536	353	353	448	358	917	2,420	1,790	3,920	1,290	1,240	1,290
2	607	358	353	562	358	813	2,100	1,850	3,920	1,340	1,390	1,290
3	588	353	353	562	375	728	1,850	2,300	3,760	1,240	1,340	1,340
4	555	348	342	503	402	676	1,670	2,490	3,670	1,340	1,240	1,440
5	460	342	336	466	386	655	1,560	2,300	3,510	1,200	1,240	1,290
6	565	331	358	419	424	607	1,440	2,160	3,280	1,150	1,290	1,090
7	516	353	370	310	472	594	1,440	2,100	3,120	1,100	1,290	1,100
8	472	348	353	380	419	750	1,390	2,160	2,980	1,070	1,020	885
9	436	336	478	442	402	765	1,500	2,360	2,770	1,150	984	662
10	414	310	690	436	397	735	1,500	2,840	2,630	1,100	1,150	600
11	397	331	581	370	472	683	1,440	3,590	2,700	1,100	1,200	705
12	392	336	484	336	419	600	1,500	4,360	2,910	1,150	1,290	934
13	392	331	414	320	424	581	1,790	4,450	3,050	1,240	1,340	1,200
14	386	348	386	320	424	581	2,300	4,180	3,120	1,290	1,340	568
15	380	348	386	358	430	555	2,560	4,010	2,980	1,290	1,340	496
16	380	358	581	353	392	548	2,230	3,760	2,840	1,240	1,340	885
17	370	336	813	397	397	568	2,040	3,670	2,700	1,290	1,390	925
18	370	342	641	380	402	594	2,100	3,510	2,630	1,240	1,390	765
19	380	353	478	295	386	620	2,300	3,510	2,560	1,090	1,440	568
20	375	358	472	305	358	669	2,560	3,670	2,490	813	1,440	627
21	353	348	442	348	320	735	2,300	3,670	2,300	797	1,390	529
22	364	364	402	328	408	805	2,230	3,760	2,100	869	1,340	490
23	364	364	386	364	402	917	2,230	3,840	1,910	901	1,340	472
24	364	358	380	358	397	1,030	2,100	4,100	1,790	821	1,290	460
25	392	358	320	364	397	1,290	2,100	4,270	1,670	821	1,290	448
26	386	358	230	370	548	1,850	2,160	4,180	1,610	821	1,500	562
27	375	386	370	375	750	2,490	2,360	4,010	1,560	683	1,390	574
28	392	358	336	364	1,060	1,970	2,230	3,670	1,440	614	1,290	607
29	388	336	356	353	1,150	1,610	2,100	3,510	1,390	581	1,290	648
30	370	353	424	364	-	1,730	1,910	3,590	1,340	901	1,240	662
31	370	-	436	348	-	2,490	-	3,840	-	1,240	1,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	13,077	607	353	422	25,940
November	10,456	386	310	349	20,740
December	13,306	813	230	429	26,390
Calendar year 1939	335,393	3,050	230	919	665,300
January	11,896	562	295	384	23,600
February	13,529	1,150	320	467	26,830
March	30,156	2,490	548	973	59,810
April	59,410	2,560	1,390	1,980	117,800
May	103,500	4,450	1,790	3,339	205,300
June	78,650	3,920	1,340	2,622	156,000
July	32,772	1,340	581	1,057	65,000
August	40,294	1,500	984	1,300	79,920
September	24,112	1,440	448	804	47,830
Water year 1939-40	431,158	4,450	230	1,178	855,200

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

South Fork of Payette River near Banks, Idaho

Location.- Water-stage recorder, lat. 44°05'30", long. 116°06'00", in sec. 28, T. 9 N., R. 3 E., 1 mile upstream from North Fork of Payette River and 1½ miles northeast of Banks. Datum of gage is 2,812.0 feet above mean sea level.

Drainage area.- 1,200 square miles.

Records available.- August 1921 to September 1940.

Average discharge.- 19 years, 1,540 second-feet.

Extremes.- Maximum discharge during year, 6,660 second-feet Mar. 27 (gage height, 7.03 feet); minimum, about 225 second-feet Dec. 26, when stage was below intake.
1921-40: Maximum discharge, 13,800 second-feet May 17, 1927 (gage height, 10.6 feet, from floodmarks); minimum, about 225 second-feet Dec. 15, 1935, Jan. 28, 1936, and Dec. 26, 1939.

Remarks.- Records good. Small diversions above station for irrigation. Since Nov. 2, 1930, flow has been regulated by Deadwood Reservoir (see p.167). Slight regulation by Grimes Pass power plant.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

0.1	305	1.0	750	2.2	1,510	3.8	2,645	6.2	5,560
.4	435	1.4	985	2.6	1,810	4.6	3,630	7.0	6,660
.7	585	1.8	1,235	3.0	2,135	5.4	4,540		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	612	500	470	722	610	1,930	5,430	2,760	6,040	1,540	1,300	1,340
2	700	490	455	955	525	1,660	4,540	2,840	4,910	1,540	1,510	1,370
3	712	490	460	1,020	560	1,480	3,850	3,430	4,760	1,460	1,480	1,400
4	668	485	450	865	612	1,340	3,330	3,630	4,540	1,510	1,340	1,510
5	580	485	445	778	585	1,270	3,330	3,430	4,420	1,400	1,340	1,440
6	717	470	475	668	722	1,170	3,040	3,230	4,070	1,340	1,340	1,170
7	678	485	475	520	835	1,100	2,840	3,130	3,850	1,270	1,370	1,200
8	607	485	475	590	734	1,660	2,840	3,230	3,740	1,240	1,140	1,040
9	565	475	590	695	684	1,660	3,040	3,430	3,430	1,300	1,040	805
10	535	426	985	690	835	1,510	3,040	3,530	3,230	1,270	1,170	706
11	515	450	805	585	895	1,370	2,940	5,040	3,230	1,240	1,240	778
12	505	470	706	510	739	1,170	2,940	6,100	3,430	1,270	1,370	965
13	510	470	575	495	646	1,100	3,330	6,380	3,630	1,370	1,400	1,370
14	500	455	525	480	706	1,080	4,070	5,960	3,630	1,400	1,400	835
15	500	460	550	510	700	1,040	4,540	5,660	3,630	1,400	1,440	624
16	495	440	835	540	618	1,040	3,850	5,300	3,330	1,400	1,440	925
17	495	435	1,270	585	640	1,040	3,630	5,170	3,230	1,400	1,440	1,040
18	495	426	1,020	555	640	1,100	3,630	5,040	3,130	1,370	1,480	965
19	505	455	726	435	612	1,170	3,850	4,910	3,040	1,270	1,510	739
20	505	450	678	440	550	1,270	4,070	5,170	2,940	955	1,510	805
21	485	455	646	515	500	1,400	3,740	5,170	2,660	923	1,480	700
22	490	460	585	470	612	1,540	3,530	5,170	2,480	983	1,370	629
23	495	475	535	515	590	1,730	3,530	5,300	2,300	1,040	1,370	602
24	495	455	550	515	590	1,970	3,430	5,560	2,090	955	1,370	585
25	515	460	455	520	634	2,580	3,330	5,820	2,010	923	1,340	565
26	520	470	f310	540	925	3,850	3,330	5,820	1,930	955	1,540	646
27	505	500	530	550	1,580	6,100	3,530	5,430	1,850	833	1,480	684
28	510	470	470	550	2,460	4,420	3,430	5,040	1,730	750	1,370	722
29	525	455	485	525	2,580	3,530	3,230	4,660	1,660	703	1,340	778
30	500	455	596	520	-	3,740	2,940	4,660	1,560	923	1,300	805
31	500	-	651	520	-	5,820	-	4,910	-	1,340	1,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	16,939	717	485	546	33,600
November	13,957	500	426	465	27,680
December	18,786	1,270	310	606	37,260
Calendar year 1939	451,321	4,540	310	1,236	895,200
January	18,378	1,020	435	593	36,450
February	23,839	2,580	500	822	47,280
March	62,840	6,100	1,040	2,027	124,600
April	106,150	5,430	2,840	3,538	210,500
May	144,810	6,380	2,760	4,671	287,200
June	95,520	5,040	1,580	3,184	189,500
July	37,306	1,540	706	1,203	74,000
August	42,520	1,540	1,040	1,372	84,340
September	27,633	1,510	565	921	54,810
Water year 1939-40	608,677	6,380	310	1,663	1,207,000

f Fragmentary gage-height record; discharge computed from existing record and record for station at Garden Valley.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Payette River near Horseshoe Bend, Idaho

Location.- Water-stage recorder, lat. 43°56'00", long. 116°11'30", in SW¼SW¼ sec. 14, T. 7 N., R. 2 E., 100 feet east of tracks of Idaho Northern branch of Oregon Short Line Railroad and 1½ miles north of Horseshoe Bend.

Drainage area.- 2,230 square miles.

Records available.- November 1912 to September 1916, July 1919 to September 1940. February 1906 to November 1912, at site 2 miles upstream, in sec. 2.

Average discharge.- 29 years (1907-15, 1919-40), 2,962 second-feet.

Extremes.- Maximum discharge during year, 13,500 second-feet Mar. 31 (gage height, 7.32 feet); minimum, 420 second-feet Dec. 26 (gage height, 0.50 foot).
1906-16, 1919-40: Maximum discharge, 22,100 second-feet June 9, 1921 (gage height, 9.57 feet); minimum, 350 second-feet Dec. 17, 1935 (gage height, 0.26 foot), from rating curve extended below 600 second-feet.

Remarks.- Records excellent except those for periods of no gage-height record, which are good. Flow regulated by Deadwood Reservoir (see p.167), Payette Lake (see p.170), and Lake Fork Reservoir (see p.173). Several diversions from tributaries above station for irrigation.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used June 5 to Sept. 30)

0.5	420	2.0	1,730	4.4	5,820
.8	615	2.3	2,105	5.0	7,190
1.1	840	2.6	2,525	5.8	9,180
1.4	1,100	3.2	3,500	6.6	11,380
1.7	1,400	3.8	4,610	7.4	13,790

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	816	752	722	1,420	942	5,300	12,900	5,720	9,440	2,040	1,560	1,540
2	874	738	745	1,980	925	4,700	11,100	5,610	9,440	1,980	1,790	1,550
3	950	730	730	2,450	984	4,040	9,180	6,260	9,180	1,910	1,730	1,580
4	891	722	700	2,240	1,060	3,680	7,670	6,720	8,920	1,980	1,570	1,700
5	848	685	700	1,910	1,050	3,320	7,430	6,720	8,410	1,910	1,550	1,670
6	950	636	700	1,620	1,200	2,910	7,190	6,490	8,160	1,730	1,520	1,420
7	1,090	752	664	1,190	1,420	2,520	6,720	6,260	7,430	1,620	1,580	1,430
8	1,010	722	722	1,090	1,330	3,680	6,260	6,260	6,720	1,560	1,580	1,310
9	908	700	824	1,330	1,320	4,230	6,720	6,490	5,610	1,730	1,450	1,050
10	808	671	1,450	1,420	1,520	3,680	6,950	7,430	5,200	1,730	1,580	934
11	784	671	1,450	1,220	1,600	3,070	6,490	8,660	5,000	1,710	1,620	959
12	760	685	1,420	1,120	1,430	2,600	6,260	10,200	5,100	1,710	1,710	1,110
13	752	692	1,100	1,040	1,300	2,380	6,490	11,100	5,400	1,790	1,730	1,550
14	738	678	993	1,040	1,340	2,240	7,430	11,400	5,610	1,850	1,720	1,200
15	700	657	968	976	1,280	2,170	8,160	11,400	5,500	1,850	1,730	976
16	664	566	1,300	1,090	1,170	2,170	7,670	11,100	5,400	1,850	1,730	1,200
17	768	636	2,240	1,190	1,200	2,310	6,950	10,800	5,200	1,850	1,720	1,350
18	738	657	2,240	1,170	1,160	2,450	6,950	10,200	5,000	1,980	1,790	1,190
19	722	643	1,580	1,060	1,120	2,450	7,190	9,980	4,800	2,040	1,790	a1,000
20	745	650	1,310	1,000	1,030	2,600	7,430	10,200	4,610	1,730	1,790	a1,100
21	700	657	1,200	959	934	2,830	7,430	10,200	4,230	1,660	1,730	a1,000
22	708	671	1,070	925	1,080	2,910	7,190	10,200	3,860	1,710	1,640	a950
23	700	692	968	968	1,070	3,320	6,950	10,500	3,500	1,790	1,630	908
24	629	685	950	1,010	1,070	3,680	6,720	10,800	2,990	1,680	1,620	882
25	760	650	792	959	1,170	4,700	6,720	11,100	2,830	1,660	1,550	848
26	808	708	545	993	1,650	6,720	6,490	11,400	2,600	1,670	1,790	900
27	768	768	738	1,040	2,680	12,000	6,720	11,100	2,450	1,620	a1,700	968
28	752	768	800	1,040	4,700	10,200	6,720	10,800	2,240	1,470	a1,600	1,000
29	784	700	857	1,030	6,260	8,660	6,490	10,200	2,170	1,400	a1,600	1,060
30	768	692	959	993	-	8,660	6,040	9,710	2,100	1,280	a1,500	1,120
31	768	-	1,120	984	-	12,300	-	9,710	-	1,660	a1,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	24,661	1,090	629	796	48,910
November	20,634	768	566	688	40,930
December	32,557	2,240	545	1,050	64,580
Calendar year 1939	776,698	8,920	545	2,128	1,541,000
January	38,457	2,450	925	1,241	76,280
February	44,995	6,260	925	1,552	89,250
March	138,480	12,300	2,170	4,467	274,700
April	220,610	12,900	6,040	7,354	437,600
May	284,720	11,400	5,610	9,185	564,700
June	159,100	9,440	2,100	5,303	315,600
July	54,150	2,040	1,280	1,747	107,400
August	51,100	1,790	1,450	1,648	101,400
September	35,455	1,700	848	1,182	70,320
Water year 1939-40	1,104,919	12,900	545	3,019	2,192,000

a No gage-height record; discharge computed on basis of records for South Fork of Payette River near Banks.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Payette River near Emmett, Idaho

Location.- Water-stage recorder, lat. 43°56', long. 116°27', in sec. 22, T. 7 N., R. 1 W., three-eighths of a mile downstream from Black Canyon Dam and 5 miles northeast of Emmett.

Records available.- June 1925 to September 1940.

Average discharge.- 15 years, 2,718 second-feet.

Extremes.- Maximum discharge during year, 19,200 second-feet Mar. 31 (gage height, 11.60 feet); minimum, 120 second-feet Dec. 9 (gage height, 1.80 feet).
1925-40: Maximum discharge, 22,800 second-feet May 1, 1938 (gage height, 12.90 feet); minimum, 2 second-feet (estimated) Jan. 13, 1938, when gates in dam were closed.

Remarks.- Records good. Diversions above station for irrigation. Flow regulated by diversion at and operation of gates in Black Canyon Dam and by Deadwood Reservoir (see p. 167), Payette Lake (see p.170), and Lake Fork Reservoir (see p.173).

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 20 to Sept. 30)

2.1	300	4.2	2,690	7.0	7,380
2.4	565	4.6	3,250	8.0	9,420
2.7	860	5.0	3,850	9.0	11,740
3.0	1,190	5.4	4,490	10.0	14,440
3.4	1,660	5.8	5,170	11.6	19,200
3.8	2,160	6.2	5,880		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	443	830	987	1,220	1,100	7,380	16,200	5,880	9,000	1,370	1,050	860
2	443	800	990	2,160	1,080	6,240	13,000	5,700	9,000	1,400	1,040	981
3	443	790	1,060	2,690	1,030	5,520	10,500	6,430	8,790	1,350	1,040	1,080
4	443	690	936	2,760	1,230	4,830	9,000	7,000	8,380	1,340	1,040	1,010
5	443	770	886	2,480	1,320	4,330	9,210	6,810	8,180	1,310	1,050	1,190
6	470	850	884	1,960	1,710	3,850	8,380	6,620	7,580	1,210	1,080	970
7	700	660	922	1,310	1,960	3,040	7,780	6,240	7,190	1,110	970	948
8	790	816	918	1,270	1,780	4,580	7,380	6,060	6,240	1,100	1,070	970
9	680	781	917	1,560	1,490	5,520	7,780	6,620	5,170	1,100	1,080	710
10	508	723	1,170	2,030	1,840	5,000	8,180	7,190	4,830	1,150	1,050	710
11	489	711	1,610	1,380	2,550	4,250	7,580	8,580	4,580	1,230	1,050	800
12	480	621	1,610	1,310	2,100	3,620	7,190	10,300	4,830	1,180	1,060	800
13	470	719	1,540	1,160	1,840	3,040	7,190	11,200	5,170	1,180	1,040	926
14	461	736	1,230	1,060	1,780	2,290	8,180	11,200	5,170	1,170	1,050	959
15	452	709	1,240	1,110	1,840	1,610	9,000	11,200	5,170	1,170	1,100	820
16	407	675	1,320	1,060	1,660	1,620	8,580	11,000	4,830	1,180	1,080	770
17	389	565	2,030	1,210	1,540	1,660	7,780	10,500	4,830	1,180	1,060	1,000
18	461	674	2,030	1,300	1,720	2,100	7,580	10,100	4,410	1,180	1,050	1,020
19	425	660	1,960	1,140	1,590	2,620	7,780	9,860	4,170	1,200	1,050	780
20	389	679	1,780	1,140	1,520	3,110	8,180	10,100	4,090	1,340	1,070	871
21	398	932	1,500	1,090	1,240	3,480	7,980	10,100	3,620	1,160	1,020	970
22	650	892	1,410	1,020	1,230	3,620	7,580	10,100	3,320	1,110	1,040	915
23	730	909	1,270	1,000	1,430	3,930	7,580	10,500	2,760	1,070	992	810
24	670	1,020	1,200	1,000	1,370	4,330	7,190	10,500	2,220	1,100	1,010	800
25	690	935	1,050	1,080	1,440	5,170	7,000	11,200	2,160	1,060	948	800
26	948	950	710	1,060	2,830	8,180	6,810	11,200	1,960	1,140	992	780
27	810	1,060	802	1,110	4,580	15,300	7,190	11,000	1,840	1,070	1,200	770
28	760	1,050	1,080	1,260	7,000	12,500	7,000	10,500	1,540	915	981	770
29	790	1,000	808	1,200	8,180	10,100	7,000	9,860	1,470	853	948	760
30	800	809	1,040	1,200	-	10,300	6,430	9,640	1,290	1,020	970	937
31	810	-	1,130	1,150	-	16,200	-	9,420	-	1,080	871	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17,842	948	389	576	35,390
November	24,016	1,060	565	801	47,640
December	38,020	2,030	710	1,226	75,410
Calendar year 1939	755,607	8,990	308	2,070	1,499,000
January	43,480	2,760	1,000	1,403	86,240
February	61,980	8,180	1,030	2,137	122,900
March	169,320	16,200	1,610	5,462	335,800
April	248,210	16,200	6,430	8,274	492,300
May	282,610	11,200	5,700	9,116	560,500
June	143,790	9,000	1,290	4,793	285,200
July	36,038	1,400	893	1,163	71,480
August	32,052	1,200	871	1,034	63,570
September	26,487	1,190	710	883	52,540
Water year 1939-40	1,123,845	16,200	389	3,071	2,229,000

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Payette River near Payette, Idaho

Location.- Water-stage recorder, lat. 44°02'30", long. 116°55'30", in SW¼ sec. 10, T. 8 N., R. 5 W., at highway bridge 1⅝ miles south of Payette.

Records available.- August 1935 to September 1940. January 1895 to July 1897 (incomplete) at site 2 miles downstream.

Extremes.- Maximum discharge during year, 18,500 second-feet Apr. 1 (gage height, 10.75 feet); minimum, 340 second-feet Oct. 1 (gage height, 2.89 feet).
1935-40: Maximum discharge observed, 23,400 second-feet May 2, 1938 (gage height, 11.90 feet); minimum, 180 second-feet Oct. 13, 20, 1935 (gage height, 2.04 feet).

Remarks.- Records good. Many diversions above station for irrigation. Flow regulated also by Black Canyon Dam and by reservoirs on tributary streams.

Rating tables, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 1

2.8	295	5.2	2,710	8.0	8,500
3.2	525	5.6	3,300	8.5	10,010
3.6	835	6.0	3,930	9.0	11,650
4.0	1,220	6.5	4,840	9.5	13,410
4.4	1,660	7.0	5,900	10.0	15,290
4.8	2,160	7.5	7,120	10.8	18,480

Apr. 2 to Sept. 30

3.3	475	5.0	2,310
3.7	730	5.5	3,060
4.1	1,170	6.0	3,900
4.5	1,640	6.5	4,840

Note.- Same as preceding table above 6.5 feet.

Discharge, in second-feet water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	356	1,030	1,060	1,450	1,410	8,500	17,700	5,900	8,790	834	600	615
2	378	1,030	1,180	1,900	1,340	6,860	14,900	5,570	8,790	834	600	608
3	389	992	1,190	2,920	a1,300	6,370	12,000	5,680	8,790	780	578	671
4	389	907	1,200	3,000	a1,500	5,360	10,000	6,370	8,210	798	570	588
5	400	934	1,110	2,920	1,780	4,840	10,000	6,610	8,210	789	562	1,000
6	442	944	1,080	2,430	1,960	4,270	9,390	6,370	7,650	754	578	1,180
7	460	889	1,090	1,840	2,430	3,610	8,500	5,790	6,860	663	600	906
8	595	871	1,150	1,560	2,360	4,450	7,930	5,570	6,610	631	534	951
9	702	982	1,140	1,650	1,900	5,790	7,930	5,570	5,140	608	562	870
10	640	954	1,180	2,360	2,030	5,680	8,500	6,130	4,640	592	570	720
11	553	934	1,780	2,030	3,150	5,040	7,930	7,380	4,080	615	570	695
12	512	898	1,840	1,670	2,640	4,180	7,380	8,790	4,080	671	570	704
13	506	844	1,840	1,400	2,360	3,690	7,380	10,300	4,260	623	570	720
14	506	907	1,590	1,350	2,290	3,300	7,930	10,600	4,450	608	548	897
15	492	925	1,430	1,350	2,360	2,100	9,090	10,600	4,450	615	562	906
16	499	907	1,540	1,310	2,160	2,030	9,090	10,600	4,260	623	608	780
17	499	862	1,960	1,420	1,960	2,030	8,210	10,300	4,170	663	608	746
18	480	767	2,220	1,520	2,160	2,160	7,930	9,700	3,990	671	600	990
19	492	871	2,220	1,430	2,100	2,250	7,930	9,390	3,550	687	615	970
20	506	853	2,100	1,340	1,960	3,300	8,210	9,700	3,380	712	623	906
21	499	944	1,900	1,330	1,700	3,530	8,500	9,700	3,140	798	639	906
22	532	1,140	1,640	1,240	1,560	3,850	7,930	9,700	2,750	704	615	990
23	640	1,090	1,530	1,220	1,840	3,930	7,650	10,000	2,310	655	615	879
24	694	1,100	1,410	1,240	1,840	4,360	7,380	10,000	1,900	608	608	807
25	718	1,200	1,390	1,290	2,030	4,840	6,860	10,600	1,630	623	655	789
26	972	1,140	1,140	1,340	3,150	7,380	6,610	11,000	1,520	608	600	780
27	1,100	1,160	916	1,470	4,940	13,800	6,860	10,600	1,320	671	623	738
28	954	1,260	1,080	1,840	7,120	14,200	6,860	10,300	1,100	647	772	746
29	1,020	1,210	1,160	1,580	8,790	11,300	6,610	9,700	924	570	655	772
30	1,020	1,140	1,090	1,470	-	10,000	6,370	9,390	843	520	639	870
31	1,020	-	1,260	1,460	-	14,900	-	9,090	-	578	655	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	18,965	1,100	356	612	37,620
November	29,685	1,260	767	990	58,880
December	44,416	2,220	916	1,433	88,100
Calendar year 1939	718,106	8,560	280	1,967	1,424,000
January	52,330	3,000	1,220	1,688	103,800
February	74,120	8,790	1,300	2,556	147,000
March	177,900	14,900	2,030	5,739	352,900
April	259,560	17,700	6,370	8,652	514,800
May	267,000	11,000	5,570	8,613	529,600
June	131,797	8,790	843	4,393	261,400
July	20,753	834	520	669	41,160
August	18,704	772	534	603	37,100
September	25,000	1,180	608	833	49,590
Water year 1939-40	1,120,230	17,700	356	3,061	2,222,000

a No gage-height record; discharge computed on basis of records for Payette River near Emmett and Horseshoe Bend.

Deadwood Reservoir near Lowman, Idaho

Location.- Staff gage at dam on Deadwood River, lat. 44°18', long. 115°39', in SE¼ sec. 8, T. 11 N., R. 7 E., 15 miles north of Lowman. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Drainage area.- 108 square miles.

Records available.- October 1935 to September 1940.

Extremes.- Maximum elevation observed during year, 5,335.6 feet June 4-8; minimum observed, 5,291.9 feet Oct. 4, 5, 9, 10, 12-14.
1936-40: Maximum elevation observed, 5,336.6 feet June 9, 10, 1938; minimum observed, 5,260.1 feet Oct. 1, 1935.

Remarks.- Reservoir is formed by concrete arch dam, completed in 1930; storage began Nov. 2, 1930. Reported capacity 160,400 acre-feet between elevation 5,230.0 feet (minimum operating level because of fish protection, 27 feet above sill of emergency gate in front of needle valve) and 5,334.0 feet (crest of spillway). Storage below elevation 5,230.0 feet about 1,500 acre-feet. Water is used to augment flow of Payette River at Black Canyon power plant near Emmett. During the late fall of 1936, Bureau of Reclamation cut an intermountain canal to divert a small flow of water from a tributary of Johnson Creek in Salmon River Basin to Deadwood River Basin for supplemental storage in Deadwood Reservoir. Measurement of June 14, 1940, indicates a flow in this canal of 30.6 second-feet. Gage read once daily.

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

Elevations, in feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	292.4	292.2	292.7	295.2	297.3	299.6	303.2	314.3	335.1	334.68	330.65	312.2
2	292.25	292.2	292.75	295.3	297.3	299.7	303.3	314.6	335.4	334.65	330.1	311.5
3	292.1	292.2	292.75	295.35	297.35	299.7	303.5	315.1	335.5	334.62	329.5	310.8
4	291.9	292.25	292.75	295.4	297.4	299.75	303.8	315.5	335.6	334.6	329.05	310.1
5	291.9	292.25	292.75	295.5	297.5	299.8	304.1	316.0	335.6	334.6	328.6	309.55
6	292.0	292.25	292.8	295.5	297.6	299.85	304.3	316.5	335.6	334.68	328.1	309.1
7	292.0	292.3	292.8	295.6	297.7	299.9	304.5	316.9	335.6	334.55	327.6	308.5
8	291.95	292.35	292.85	295.7	297.8	300.1	304.8	317.3	335.6	334.52	327.25	308.1
9	291.9	292.4	293.0	295.8	297.9	300.2	305.1	317.8	335.5	334.45	326.95	307.9
10	291.9	292.4	293.15	295.9	298.0	300.3	305.4	318.3	335.45	334.34	326.6	307.9
11	291.95	292.4	293.3	296.0	298.1	300.35	305.6	318.9	335.4	334.25	326.1	307.75
12	291.9	292.4	293.4	296.0	298.2	300.4	305.9	319.7	335.4	334.1	325.6	307.4
13	291.9	292.4	293.5	296.0	298.2	300.4	306.2	320.6	335.4	333.85	325.0	306.95
14	291.94	292.4	293.55	296.0	298.25	300.45	306.5	321.5	335.4	333.6	324.31	306.9
15	291.95	292.4	293.6	296.1	298.3	300.5	306.9	322.4	335.4	333.3	323.8	307.0
16	291.95	292.4	293.7	296.1	298.35	300.6	307.2	323.4	335.35	333.0	323.2	306.75
17	292.0	292.4	294.0	296.2	298.4	300.7	307.5	324.3	335.3	332.7	322.55	306.35
18	292.0	292.4	294.1	296.3	298.45	300.8	307.9	325.0	335.25	332.4	321.8	306.05
19	292.0	292.46	294.15	296.35	298.5	300.9	308.3	325.7	335.2	332.1	321.2	306.2
20	292.03	292.45	294.25	296.4	298.55	301.0	308.7	326.4	335.15	332.05	320.4	306.3
21	292.05	292.5	294.3	296.45	298.55	301.1	309.3	327.2	335.1	332.0	319.7	306.4
22	292.05	292.5	294.4	296.5	298.6	301.2	309.8	328.0	335.05	331.9	319.05	306.45
23	292.05	292.5	294.5	296.6	298.65	301.3	310.3	328.8	335.0	331.7	318.5	306.5
24	292.05	292.55	294.55	296.7	298.7	301.4	310.9	329.6	334.95	331.6	317.75	306.55
25	292.1	292.55	294.6	296.8	298.8	301.6	311.5	330.5	334.9	331.5	317.15	306.6
26	292.1	292.55	294.6	296.9	299.0	301.8	312.0	331.3	334.85	331.4	316.4	306.5
27	292.1	292.6	294.65	297.0	299.3	302.0	312.6	332.1	334.8	331.46	315.6	306.4
28	292.1	292.65	294.65	297.1	299.4	302.2	313.1	332.8	334.78	331.5	314.9	306.4
29	292.1	292.65	294.7	297.2	299.5	302.4	313.5	333.5	334.75	331.55	314.2	306.35
30	292.15	292.7	294.9	297.25	-	302.6	313.9	334.1	334.69	331.4	313.6	306.3
31	292.2	-	295.0	297.3	-	303.0	-	334.6	-	331.0	312.9	-

Note.- Add 5,000 feet to obtain elevations above mean sea level.

9-238 September 1937 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Deadwood River below Deadwood Reservoir, near Lowman, Idaho

Location.- Water-stage recorder, lat. 44°18', long. 115°39', in NE¼ sec. 17, T. 11 N., R. 7 E., 300 feet upstream from Wilson Creek, a quarter of a mile downstream from Deadwood Dam at lower end of Deadwood Basin, 15 miles north of Lowman, and 18 miles upstream from mouth.

Drainage area.- 108 square miles.

Records available.- October 1926 to September 1940.

Average discharge.- 13 years (1927-40), 179 second-feet.

Extremes.- Maximum discharge during year, 1,050 second-feet Aug. 25 (gage height, 4.20 feet); minimum not determined, occurred when gates at dam were closed.
1926-40: Maximum discharge, 2,150 second-feet May 26, 1928 (gage height, 5.67 feet, site and datum then in use; small amount of leakage from reservoir for long periods during 1933-39 when gates in dam were closed.

Remarks.- Records good except those for Oct. 9-13, Nov. 10 to Dec. 10, which are fair, and those for Dec. 11 to May 29, which are poor. Flow regulated since Nov. 2, 1930, by Deadwood Reservoir. During late fall of 1936, the Bureau of Reclamation cut an intermountain canal to divert a small flow from a tributary of Johnson Creek to Deadwood River Basin for supplemental storage in Deadwood Reservoir. Measurement of June 14, 1940, indicated flow in diversion of 30.6 second-feet.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	196	28	33						400	196	760	900
2	196	28	33						517	187	875	925
3	193	28	33						614	180	760	900
4	114	28	33						654	176	696	850
5	76	28	33						675	171	696	675
6	75	28	33						654	163	738	634
7	76	29	33						634	152	675	574
8	78	29	33						614	213	415	281
9	49	29	33						574	255	517	178
10	40	31	33						555	264	634	209
11	38	31	25						536	301	717	347
12	38	31							536	385	805	555
13	38	31							536	481	828	310
14	40	31							536	517	875	12
15	40	31		3	3	3	3	3	517	517	875	228
16	41	31							499	517	900	431
17	43	31							464	517	950	337
18	47	31							431	447	950	140
19	43	30							415	256	1,000	10
20	35	30							385	152	1,000	10
21	38	30	3						371	207	925	7
22	39	30							341	284	875	6
23	39	30							316	257	875	6
24	40	31							296	229	805	6
25	40	31							279	229	925	86
26	40	31							262	108	1,020	136
27	42	32							243	5	950	138
28	34	33							229	4	875	136
29	28	33							218	161	850	136
30	28	33			-			58	207	525	850	136
31	28	-			-		-	239	-	614	875	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,892	196	28	61.0	3,750
November	908	33	28	30.3	1,800
December	415	33	-	13.4	823
Calendar year 1939	68,456	1,200	-	188	135,800
January	93	-	-	3.0	184
February	87	-	-	3.0	173
March	93	-	-	3.0	184
April	90	-	-	3.0	179
May	384	239	-	12.4	762
June	13,508	675	207	450	26,790
July	8,670	614	4	280	17,200
August	25,491	1,020	415	822	50,560
September	9,299	925	6	310	18,440
Water year 1939-40	60,930	1,020	-	166	120,800

Note.- Discharge computed from daily staff-gage readings Oct. 9-13, Nov. 10 to Dec. 10. Gates at dam closed Dec. 11 to May 29; average discharge determined on basis of discharge measurements made in previous years for similar conditions.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Deadwood River near Lowman, Idaho

Location.- Water-stage recorder, lat. 44°05', long. 115°40', in sec. 29, T. 9 N., R. 7 E., 700 feet upstream from mouth and 2½ miles west of Lowman.

Drainage area.- 201 square miles.

Records available.- August 1921 to September 1940.

Average discharge.- 19 years, 351 second-feet.

Extremes.- Maximum discharge during year, 1,180 second-feet June 4 (gage height, 3.19 feet); minimum, 36 second-feet Feb. 21 (gage height, 0.94 foot).
1921-40: Maximum discharge, 4,230 second-feet May 9, 1928 (gage height, 5.17 feet), from rating curve extended above 3,200 second-feet; minimum, 28 second-feet Nov. 4, 1935 (gage height, 0.83 foot).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Deadwood Reservoir (see p.167). Small amount of water diverted from tributary of Johnson Creek to Deadwood River Basin during year.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	261	77	80	84	54	156	626	499	933	344	800	950
2	287	75	80	122	56	139	536	536	1,050	334	968	959
3	265	75	80	106	60	124	458	640	1,120	324	889	968
4	232	75	80	91	60	117	396	654	1,150	319	792	968
5	134	72	80	80	60	112	380	600	1,150	310	792	784
6	158	73	80	53	68	99	354	568	1,110	291	823	681
7	139	77	80	54	70	97	354	561	1,090	257	848	688
8	139	75	60	*90	60	131	344	580	1,040	287	530	412
9	110	72	100	85	*55	129	396	633	977	380	593	261
10	93	72	164	73	60	119	396	739	933	380	717	232
11	84	77	126	57	72	106	391	906	906	407	800	364
12	84	75	82	55	52	95	418	1,030	889	481	915	580
13	84	73	64	55	50	93	524	1,030	889	593	942	592
14	84	73	62	60	55	91	674	942	881	647	959	89
15	84	73	66	65	60	86	717	864	840	640	986	159
16	84	77	139	70	50	89	620	808	800	640	986	487
17	86	77	218	80	55	91	587	769	761	640	1,000	464
18	87	73	129	70	60	99	620	739	717	606	1,030	305
19	97	75	84	60	57	106	667	739	681	447	1,070	80
20	78	80	87	50	48	117	710	739	640	228	1,070	95
21	80	80	73	60	50	134	640	732	606	252	1,030	72
22	82	80	60	55	61	153	620	724	574	359	959	64
23	82	80	61	65	53	183	620	724	536	369	959	61
24	84	80	62	65	58	214	580	739	505	324	924	60
25	89	80	43	65	66	344	580	746	475	324	968	75
26	87	80	40	65	93	499	606	724	440	291	1,110	190
27	87	80	50	62	136	633	647	674	407	95	1,020	190
28	93	80	55	58	190	469	626	633	385	77	942	203
29	82	80	60	57	196	385	587	613	369	137	924	207
30	77	80	70	57	-	505	530	620	354	515	898	214
31	77	-	75	56	-	710	-	746	-	732	915	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,590	287	77	116	7,120
November	2,296	80	72	76.5	4,550
December	2,610	218	40	84.2	5,180
Calendar year 1939	115,786	1,260	-	317	229,700
January	2,125	122	53	68.5	4,210
February	2,065	196	48	71.2	4,100
March	6,425	710	86	207	12,740
April	16,204	717	344	540	32,140
May	22,251	1,030	499	718	44,130
June	23,208	1,150	354	774	46,030
July	12,030	732	77	388	23,860
August	28,159	1,110	530	908	55,850
September	11,454	968	60	382	22,720
Water year 1939-40	132,417	1,150	40	362	262,600

*Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 26-31, Jan. 8, 9, 12-26, Feb. 3, 4, 8-10, 14-17. No gage-height record Nov. 19 to Dec. 9; discharge computed on basis of weather records and records for South Fork of Payette River near Garden Valley.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Payette Lake at Lardo, Idaho

Location.- Staff gage at outlet of lake on North Fork of Payette River, lat. 44°55', long. 116°07', in sec. 8, T. 18 N., R. 3 E., at Lardo. Datum of gage is 4,982.24 feet above mean sea level (general adjustment of 1912).

Drainage area.- 131 square miles.

Records available.- August 1921 to September 1940 (fragmentary).

Extremes.- Maximum gage height observed during year, 8.14 feet June 15; minimum observed, 1.57 feet Nov. 10, 17, 21.
1921-40: Maximum gage height observed, 8.75 feet July 13, 1935; minimum observed, 0.95 foot Oct. 3, 1931.

Remarks.- Elevation of Payette Lake is regulated within the natural range by a structure consisting of a series of concrete filled cribs supporting removable flashboards, completed in 1923. Some regulation is reported to have been effected by timber flashboards for several earlier years. Lake area is approximately 5,000 acres and a variation in stage of 5 feet corresponds to a capacity of about 25,000 acre-feet. Water is used for irrigation of lands in the vicinity of Emmett. No diversion above station. Because of drawdown in outlet channel, stages at the gage are slightly lower at times than stages of lake.

Cooperation.- Gage-height record furnished by U. S. Forest Service supplemented during period July 5 to Aug. 16 by records of Bureau of Reclamation.

Gage height, in feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	1.59	-	-	-	-	-	6.15	-	-	-
2	-	-	-	-	-	3.60	-	-	-	-	4.15	-
3	-	-	-	-	2.58	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	5.20	-	-	-	-
5	-	-	-	2.76	-	-	4.35	5.23	-	8.00	-	-
6	-	-	-	2.80	-	-	4.30	5.16	-	7.87	3.80	-
7	1.60	-	-	-	-	-	-	-	6.55	7.90	3.65	-
8	-	-	-	-	-	-	-	-	-	-	3.55	-
9	-	-	1.64	-	2.93	3.60	-	-	-	-	3.45	-
10	-	1.57	-	-	-	-	-	5.38	-	-	3.38	-
11	-	-	-	-	-	-	-	-	-	7.45	3.35	-
12	1.62	-	-	-	-	-	4.26	-	-	7.32	3.30	-
13	1.63	-	-	2.50	-	-	4.33	-	-	7.25	3.20	-
14	1.63	-	-	-	-	-	-	-	-	7.15	3.00	-
15	-	-	-	-	-	-	-	-	8.14	7.05	3.00	-
16	-	-	2.40	-	3.15	3.50	-	-	-	6.90	2.88	-
17	-	1.57	-	-	-	-	-	-	-	6.75	-	-
18	-	-	-	-	-	-	-	6.17	-	6.30	2.88	-
19	-	-	-	-	-	-	-	-	-	6.02	-	-
20	1.61	-	-	-	-	-	5.05	-	-	5.85	-	-
21	-	1.57	-	-	-	-	-	-	-	5.60	-	-
22	-	-	-	-	-	-	-	-	8.02	5.35	-	-
23	-	-	-	-	-	3.50	-	-	8.02	5.10	-	1.90
24	-	-	-	-	3.34	-	-	-	8.00	4.95	-	-
25	-	-	-	-	-	-	-	6.50	-	4.65	-	-
26	-	-	-	2.45	-	-	-	-	-	4.35	-	-
27	-	-	-	-	-	-	5.20	-	7.98	4.25	-	1.83
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	4.12	-	-	-	-	2.19	-
31	-	-	-	-	-	-	-	6.18	-	-	-	-

UNITED STATES DEPARTMENT OF THE INTERIOR
Geologic Survey

21176 O U S GOVERNMENT PRINTING OFFICE 1937

North Fork of Payette River at Lardo, Idaho

Location.- Water-stage recorder, lat. 44°54'30", long. 116°07'30", in sec. 8, T. 18 N., R. 3 E., a quarter of a mile downstream from Lardo and outlet of Payette Lake.

Drainage area.- 131 square miles.

Records available.- September 1908 to June 1917, May 1919 to September 1940.

Average discharge.- 29 years (1908-16, 1919-40), 342 second-feet.

Extremes.- Maximum discharge during year, 2,500 second-feet May 25, 26; maximum gage height, 6.04 feet May 25; minimum discharge, 0.8 second-foot Nov. 28, Nov. 30 to Dec. 4; minimum gage height, 0.91 foot Dec. 1.

1908-17, 1919-40: Maximum discharge, 4,260 second-feet June 10, 1933; maximum gage height, 7.5 feet June 5, 1909, June 10, 1933; practically no flow Nov. 5-8, 1931, Nov. 17-24, 1933, Nov. 14-27, 1935, Oct. 22 to Nov. 11, 1938.

Remarks.- Records good except those for Nov. 7-9 and Jan. 19 to Feb. 23, which are fair. Flow partly regulated by flashboards placed at outlet of Payette Lake during spring and removed during irrigation season. No diversion above station.

Cooperation.- Gage-height record collected in cooperation with U. S. Forest Service.

Rating table, Feb. 24 to Sept. 30 (gage height, in feet, and discharge, in second-feet)

1.8	31	3.4	440	5.3	1,820
2.1	58	3.8	655	5.7	2,200
2.4	108	4.1	845	6.0	2,500
2.7	180	4.5	1,130		
3.0	273	4.9	1,460		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	19	0.8	243	a36	119	465	878	1,960	130	84	74
2	16	19	.8	250	h35	128	480	910	1,910	126	72	68
3	15	19	.8	253	a33	128	475	980	1,820	115	72	65
4	13	18	.8	250	a32	123	465	1,130	1,730	110	68	64
5	19	17	1.0	243	a30	123	460	1,170	1,600	174	275	61
6	27	16	.9	233	a29	119	445	1,090	832	289	395	58
7	28	a13	1.4	227	a27	119	431	1,020	239	284	346	56
8	28	a9	1.4	220	a26	137	426	1,020	288	280	310	56
9	27	a6	1.8	217	h24	132	431	1,090	233	259	280	58
10	26	2.8	2.4	211	a24	128	431	1,290	310	246	249	57
11	26	2.8	2.9	202	a24	123	426	1,640	364	273	230	55
12	25	3.1	2.9	197	a25	119	426	2,050	460	280	214	53
13	25	3.4	2.9	188	a25	115	386	2,200	631	292	205	57
14	24	3.1	2.9	182	a26	112	445	2,150	780	273	224	60
15	23	2.8	3.1	177	a26	108	525	2,050	878	336	211	58
16	23	2.8	3.4	172	h26	110	568	2,000	878	655	202	57
17	22	2.6	3.8	159	a30	112	578	2,000	845	649	188	55
18	22	2.5	3.4	152	a33	108	607	1,960	812	667	177	54
19	21	2.2	3.4	a139	a37	108	661	2,000	722	655	162	55
20	21	2.2	3.2	a125	a40	106	780	2,050	562	667	154	54
21	21	1.7	3.2	a112	a44	106	878	2,100	413	643	144	53
22	20	1.6	3.1	a98	a48	108	878	2,200	314	649	140	52
23	20	1.5	3.1	a85	a51	110	878	2,300	277	655	130	51
24	19	1.6	3.1	a71	55	119	878	2,400	242	673	121	50
25	19	1.4	3.1	a58	61	144	878	2,500	172	631	115	49
26	19	1.4	3.1	h45	65	194	878	2,500	162	595	106	34
27	19	1.1	55	a44	79	253	878	2,350	154	393	102	47
28	19	.8	121	a42	94	284	910	2,200	135	84	96	56
29	19	1.1	134	a41	108	299	910	2,050	130	72	92	55
30	19	.8	197	a39	-	330	878	2,000	132	118	87	63
31	19	-	236	a38	-	390	-	1,960	-	85	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	659	28	13	21.3	1,310
November	179.3	19	.8	5.98	356
December	805.7	236	.8	26.0	1,600
Calendar year 1939	93,507	2,050	.8	256	185,500
January	4,713	253	38	152	9,350
February	1,193	108	24	41.1	2,370
March	4,714	390	106	152	9,350
April	18,755	910	386	625	37,200
May	55,238	2,500	878	1,782	109,600
June	19,985	1,960	130	666	39,640
July	11,355	673	72	366	22,520
August	5,330	395	68	172	10,570
September	1,685	74	34	56.2	3,340
Water year 1939-40	124,612	2,500	.8	340	247,200

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

400457 O - 41 - 12

Lake Fork of Payette River above reservoir, near McCall, Idaho

Location.- Water-stage recorder, lat. 44°55', long. 116°00', in NW¼ sec. 8, T. 18 N., R. 4 E., three-quarters of a mile downstream from power plant, 2⅝ miles upstream from Lake Fork Reservoir Dam, and 5 miles east of McCall.

Drainage area.- 54.6 square miles.

Records available.- May 1926 to September 1940 (irrigation seasons only).

Extremes.- Maximum discharge during year, 1,420 second-feet May 11 (gage height, 5.84 feet), from rating curve extended above 1,100 second-feet; practically no flow Oct. 1, 21, Nov. 19, because of operation of power plant.
1926-40: Maximum discharge observed, 2,520 second-feet June 9, 1933 (gage height, about 7.9 feet, present datum, from high-water mark), from rating curve extended above 1,100 second-feet; practically no flow at times in 1937, 1939, because of operation of power plant.

Remarks.- Records good except those for period of backwater effect from Lake Fork Reservoir, which are fair. No record Dec. 22 to Feb. 22. Diurnal fluctuations at low stages caused by operation of power plant of McCall Light & Power Co. and small reservoirs above station. No diversions above station for irrigation.

Cooperation.- Gage-height record furnished by Lake Irrigation District.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	18	12		-	68	266	235	700	85	22	10
2	15	17	12		-	62	209	332	639	85	23	10
3	14	17	12		-	58	174	526	573	81	21	10
4	10	16	10		-	55	156	474	551	75	21	11
5	21	15	14	*51	-	53	151	365	528	68	20	20
6	47	15	13		-	50	147	319	493	61	20	12
7	31	16	12		-	50	136	332	446	57	20	12
8	22	15	14		-	63	150	400	357	59	19	19
9	19	14	67		-	57	171	526	330	61	18	18
10	18	13	91		-	53	160	750	375	58	13	12
11	18	13	78		-	57	147	1,080	436	53	13	11
12	18	14	52		-	54	163	1,040	496	49	15	20
13	16	14	43		-	52	226	888	504	46	15	29
14	16	13	39		-	34	343	734	430	44	13	41
15	16	12	44		-	35	365	670	376	42	14	24
16	16	12	104		-	38	268	670	349	42	14	23
17	16	12	132		-	42	252	686	334	39	11	21
18	15	11	74		-	47	292	686	314	37	11	22
19	15	9	61		-	47	354	734	307	35	14	23
20	15	13	57		-	51	474	800	282	34	11	23
21	10	12	52		-	55	354	800	243	32	11	23
22	16	12	-		-	61	321	817	201	30	11	23
23	16	12	-		32	72	354	870	180	28	11	22
24	15	12	-		34	87	304	924	158	28	11	21
25	15	11	-		37	153	296	961	148	27	11	21
26	15	12	-		53	209	332	834	138	28	11	21
27	14	12	-		60	243	332	718	122	37	11	15
28	15	12	-		83	166	315	640	101	32	11	22
29	10	10	-		88	143	284	702	95	27	10	23
30	18	12	-		-	226	247	766	90	24	10	27
31	18	-	-		-	321	-	732	-	23	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	527	47	7	17.0	1,050
November	396	18	9	13.2	786
December 1-21	993	132	10	47.3	1,970
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February 23-29	387	88	32	55.3	768
March	2,762	321	34	89.1	5,480
April	7,733	474	136	258	15,340
May	21,011	1,080	235	678	41,670
June	10,296	700	90	343	20,420
July	1,427	85	23	46.0	2,830
August	446	23	10	14.4	885
September	589	41	10	19.6	1,170
Water year	-	-	-	-	-

*Winter discharge measurement made on this day.
Note.- Backwater from reservoir, May 31 to July 2; discharge computed by special slope studies, weather records, and records for station on the Salmon River at Warren and at Whitebird, Idaho.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Lake Fork Reservoir near McCall, Idaho

Location.- Staff gage and graduations on concrete gate-control structure of dam on Lake Fork of Payette River, lat. 44°54', long. 116°03', in NW¼NW¼ sec. 13, T. 18 N., R. 3 E., 3 miles east of McCall. Datum of gage is at mean sea level (levels by Lake Irrigation District).

Records available.- April 1926 to September 1940.

Extremes.- Maximum contents observed during year, 19,330 acre-feet June 14, 15, 18 (elevation 5,118.50 feet); minimum not determined.
1926-40: Maximum contents observed, that of June 14, 15, 18, 1940; probably no storage during fall and winter.

Remarks.- Reservoir is formed by earth and rock-fill dam, completed in 1926. Capacity, 15,940 acre-feet between elevations 5,101.0 feet (lower limit of capacity table, 4.0 feet above gage sill of outlet) and 5,117.0 feet (top of flashboards, 5.0 feet above spillway crest). Dead storage unknown. Water is used for irrigation of about 6,800 acres of land in vicinity of Norwood. Figures given herein represent usable contents. Gage read once daily.

Cooperation.- Elevation record and capacity table furnished by Lake Irrigation District.

Contents, in acre-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-					-	8,973	17,540	17,290	7,878	1,708
2		-					-	-	17,550	17,070	7,588	1,599
3		-					-	-	17,730	16,780	7,336	1,527
4		-					-	11,630	17,760	16,470	7,046	1,481
5		-					-	12,450	17,900	16,190	6,769	1,428
6		-					-	13,200	17,900	15,880	6,476	1,396
7		-					-	13,540	18,170	15,570	6,221	1,375
8		-					-	13,690	18,170	15,310	6,012	1,343
9		-					-	14,000	18,190	15,000	5,838	1,367
10		-					-	-	18,200	14,690	5,606	1,364
11		-					-	15,080	18,460	14,260	5,394	1,343
12	638	-					-	15,420	18,770	14,080	5,076	1,343
13		-					-	15,540	19,170	13,770	4,864	1,322
14		-					-	-	19,330	13,460	4,568	1,396
15		-					1,904	15,080	19,330	13,160	4,326	1,407
16		-					-	14,990	19,300	12,850	4,173	-
17		-					-	14,920	19,300	12,500	3,894	1,396
18		-					-	14,860	19,330	12,170	3,705	-
19		-					-	-	19,300	11,790	3,453	-
20		-					-	15,080	19,300	11,490	3,250	-
21		187					-	15,080	19,170	11,150	3,088	1,396
22		182					-	15,110	19,090	10,820	2,927	-
23		-					-	15,140	18,980	10,530	2,686	-
24		-					4,359	15,390	18,850	10,240	2,546	-
25		-					-	15,420	18,680	9,882	2,448	-
26		-					5,606	15,390	18,520	9,551	2,350	-
27		-					6,418	15,080	18,280	9,311	2,224	-
28		-					-	15,730	18,080	9,081	2,099	-
29		-					-	16,010	17,820	8,703	2,001	-
30		-					8,460	16,660	17,570	8,433	1,904	-
31		-					-	17,180		8,163	1,794	-

Monthly elevation and contents, water year October 1939 to September 1940

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Apr. 30.....	5,111.32	8,460	-
May 31.....	5,117.15	17,180	+8,720
June 30.....	5,117.40	17,570	+390
July 31.....	5,111.10	8,163	-9,407
Aug. 31.....	5,104.49	1,794	-6,369

Lake Irrigation District canal near McCall, Idaho

Location.- Staff gage, lat. 44°54', long. 116°03', in SW¼ sec. 13, T. 18 N., R. 3 E., 600 feet downstream from head of canal, half a mile south of Lake Fork Reservoir, and 3 miles east of McCall.

Records available.- May 1926 to September 1940.

Extremes.- Maximum discharge observed during year, 150 second-feet June 15-22 (gage height, 4.85 feet); practically no flow during nonirrigation season.
1926-40: Maximum discharge observed, that of June 15-22, 1940; maximum gage height, 4.93 feet July 12-17, 1937; no flow or small amount of leakage through head gate during nonirrigation seasons.

Remarks.- Records good. Staff gage read once or twice daily. Flow regulated at head gate of canal. No diversions between head and station. Canal diverts water from right bank of Lake Fork of Payette River in SW¼ sec. 13, T. 18 N., R. 3 E., for irrigation of 6,800 acres of land near McCall and Norwood, in the Lake Irrigation District project.

Cooperation.- Gage-height record furnished by watermaster for Lake Irrigation District.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6							0	105	139	101	39
2	6							0	111	139	97	33
3	7							0	115	139	93	26
4	7							0	121	139	92	22
5	7							0	125	139	89	18
6	7							0	128	138	87	15
7	7							0	129	134	87	14
8	7							0	128	133	87	14
9	7							0	124	133	87	14
10	7							0	127	133	87	13
11	6							0	137	131	86	12
12	e5							0	140	130	85	12
13	0							0	142	130	85	12
14	0							0	144	130	85	12
15	0							0	148	130	80	12
16	0							0	150	130	75	12
17	0							1	150	130	71	12
18	0							3	150	130	69	12
19	0							4	150	128	72	12
20	0							4	150	128	70	12
21	0							6	150	125	65	10
22	0							8	150	123	61	8
23	0							9	144	123	57	8
24	0							18	143	123	53	8
25	0							24	144	123	49	8
26	0							24	142	117	47	8
27	0							30	139	112	46	8
28	0							46	139	108	45	8
29	0							71	139	105	45	8
30	0							90	139	105	43	6
31	0							101	-	103	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	80	7	0	2.6	159
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1939	11,121	146	0	30.5	22,060
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	439	101	0	14.2	871
June	4,103	150	105	137	8,140
July	3,930	139	103	127	7,800
August	2,236	101	40	72.1	4,440
September	408	39	6	13.6	809
Water year 1939-40	11,196	150	0	30.6	22,220

e Gage reading not representative of average for day; discharge computed on basis of reported gate change.
Note.- No gage-height record Oct. 1-11, May 19, Sept. 18-20, 22-30; discharge interpolated or computed on basis of reported gate changes.

Porter Creek near Gardena, Idaho

Location.- Staff gage, lat. 43°57', long. 116°11', in NE¼ sec. 14, T. 7 N., R. 2 E., at Rood ranch house, 0.6 mile upstream from mouth and 2 miles south of Gardena.

Drainage area.- 21.2 square miles.

Records available.- November 1938 to September 1940.

Extremes.- 1938-39: Maximum discharge observed during period November to September, 48 second-feet Mar. 25; maximum gage height observed, 2.38 feet Dec. 14, Jan. 25 (affected by ice); no flow at times.
1939-40: Maximum discharge observed during water year, 114 second-feet Mar. 31 (gage height, 3.02 feet), from rating curve extended above 60 second-feet; no flow at times.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read twice daily. Several diversions above station for irrigation.

Discharge, in second-feet, 1938-40

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	4.5	4.4	b4.5	7.4	33	17	2.2	0.2	0	0
2		-	5.4	4.7	b4.5	7.0	33	15	2.1	.2	0	0
3		-	5.8	5.0	b5.0	7.0	30	15	2.1	.3	.2	0
4		-	5.8	4.2	b5.0	7.2	32	14	1.8	.4	.1	0
5		-	5.6	b4.5	5.4	7.9	30	13	1.9	.3	0	0
6		-	*5.2	4.5	5.4	6.8	28	12	2.2	.3	0	0
7		-	5.4	b4.0	5.2	6.5	23	11	3.0	.2	0	0
8		-	5.9	b3.5	5.2	6.8	24	10	1.9	.1	0	0
9		-	5.8	b4.0	b5.0	7.4	21	9.7	1.2	.2	0	0
10		-	5.6	*4.4	b5.0	8.1	20	9.2	.6	.2	0	0
11		-		4.4	6.1	9.2	19	9.4	.8	.1	0	0
12		-		4.2	6.5	18	20	9.2	.6	.1	0	.1
13		-		5.2	5.9	30	18	6.8	.7	0	0	.3
14		-		4.9	5.9	15	16	4.5	1.1	.1	0	.2
15		-	b4.5	4.4	b6.0	13	17	4.2	1.9	.1	0	.2
16		-		b4.5	b5.5	23	13	4.9	2.8	.1	0	.2
17		-		b4.5	b6.0	26	14	5.4	3.5	.1	0	.2
18		*5.6		4.2	7.7	30	17	5.4	4.2	.1	0	.1
19		5.2	4.7	4.7	7.2	38	19	5.4	4.9	0	0	.1
20		5.2	4.4		b7.0	38	20	3.9	4.5	0	0	.1
21		5.0	4.5		b7.0	38	20	3.8	4.1	0	0	.1
22			4.1		b7.0	40	20	3.8	1.8	0	0	.1
23			4.2		7.4	42	21	3.8	1.4	0	0	.1
24			4.2		*7.4	43	21	3.4	.9	0	0	.1
25			4.2	(*)	6.8	42	17	3.0	.8	0	0	0
		b4.5		b5.0								
26			b4.0		7.0	42	12	2.9	.4	0	0	.1
27			4.2		7.2	39	13	2.8	.6	0	0	.1
28			4.2		6.1	38	12	1.8	.9	0	0	.1
29			4.5		-	32	17	1.9	.5	0	0	.1
30		4.4	4.2		-	31	18	2.2	.2	0	0	.1
31		-	3.9		-	30	-	2.2	-	0	0	-

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

9-238 September 1937 UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Discharge, in second-feet, of Porter Creek near Gardena, Idaho, 1938-40--Continued

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	1.0	2.7	5.9	4.5	38	67	30	3.4	0.1	0	0
2	.2	1.0	2.8	8.9	4.2	28	62	31	3.1	.1	0	0
3	.1	1.0	2.8	8.6	4.5	24	56	31	3.0	0	0	0
4	.1	1.0	2.9	8.1	5.9	22	53	31	3.1	.1	0	.1
5	.3	1.0	2.9	6.8	5.2	20	56	29	3.1	.1	0	.1
6	.5	1.0	2.9	*5.4	17	17	47	25	2.8	.1	.1	.1
7	.5	1.0	2.8	6.5	9.2	18	46	23	3.0	.1	.1	.1
8	.4	1.0	2.9	4.7	7.7	33	43	22	2.8	0	0	.4
9	.4	1.0	4.4	*5.9	*7.2	25	49	22	2.6	.1	0	.1
10	.3	.9	4.2	5.8	20	26	41	21	1.9	.1	0	0
11	.5	1.0	6.8	4.5	12	24	38	20	1.8	.1	0	0
12	.3	1.0	4.1	4.5	9.2	21	38	20	1.7	.1	0	0
13	.4	1.0	3.8	b4.0	8.9	20	41	21	1.0	.1	0	.4
14	.6	.9	3.7	b4.0	9.7	20	47	19	.6	.1	0	.1
15	.8	1.0	3.7	b4.0	8.6	20	47	18	.8	0	0	.1
16	.8	1.0	4.5	4.2	7.7	21	43	15	.9	0	0	.1
17	.9	.9	5.9	4.2	8.9	19	39	14	.8	0	0	.1
18	1.0	.9	4.2	3.8	9.2	19	40	13	.6	0	0	.1
19	1.1	1.0	3.8	b3.5	8.4	18	41	12	.6	0	0	.1
20	1.3	1.1	3.9	b3.5	6.8	18	46	11	.5	0	0	.2
21	1.4	1.2	3.7	3.7	6.8	20	40	9.7	.4	0	0	.9
22	1.5	2.1	3.4	3.7	8.6	20	38	8.1	.4	0	0	2.0
23	1.3	2.2	3.1	3.7	9.2	22	36	7.4	.4	0	0	2.1
24	.9	2.4	3.4	3.7	8.4	24	35	7.2	.4	0	0	2.3
25	.9	2.3	b2.5	4.1	15	35	32	9.4	.5	0	0	2.3
26	1.2	2.4	b3.0	4.7	41	53	36	10	.3	0	0	2.3
27	1.1	2.7	b3.5	6.8	46	74	39	9.7	.1	0	0	2.0
28	1.4	2.7	3.8	4.9	47	48	36	9.2	.1	.1	0	2.4
29	1.1	2.7	3.4	4.5	44	40	35	8.4	.1	.1	0	3.0
30	1.1	2.7	3.9	4.5	-	42	32	7.4	0	0	.2	2.8
31	1.0	-	4.2	4.5	-	82	-	6.5	-	0	.2	-

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

Monthly discharge, in second-feet, 1938-40

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1938	-	-	-	-	-
November 18-30	61.4	-	-	4.72	122
December	146.3	5.9	-	4.72	290
Calendar year					
January 1939	144.2	-	3.5	4.65	286
February	169.9	7.7	4.5	6.07	337
March	729.3	43	6.5	23.5	1,450
April	618	33	12	20.6	1,230
May	216.6	17	1.8	6.99	430
June	55.6	4.9	.2	1.85	110
July	3.1	.4	0	.10	6.1
August	.3	.2	0	.01	.6
September	2.4	.3	0	.08	4.8
The period	-	-	-	-	4,270
October 1939	23.5	1.5	.1	.76	47
November	43.1	2.7	.9	1.44	85
December	113.6	6.8	2.7	3.66	225
Calendar year 1939	2,119.6	43	0	5.81	4,210
January 1940	155.6	8.9	3.5	5.02	309
February	400.8	47	4.2	13.8	795
March	911	82	17	29.4	1,810
April	1,299	67	32	43.3	2,580
May	520.0	31	5.5	16.8	1,030
June	40.8	3.4	0	1.36	81
July	1.4	.1	0	.05	2.8
August	.6	.2	0	.02	1.2
September	24.2	3.0	0	.81	48
Water year 1939-40	3,533.6	82	0	9.65	7,010

Weiser River at Tamarack, Idaho

Location.- Staff gage, 44°57', long. 116°23', sec. 30, T. 19 N., R. 1 E., 0.4 mile southeast of Tamarack.

Drainage area.- 36.5 square miles.

Records available.- September 1936 to September 1940.

Extremes.- Maximum discharge observed during year, 775 second-feet Mar. 27 (gage height, 6.00 feet), from rating curve extended above 600 second-feet; minimum observed, 3.7 second-feet Aug. 22; minimum gage height, 0.70 foot on several days during October to December.

1936-40: Maximum discharge observed, that of Mar. 27, 1940; minimum observed, 1.7 second-feet July 30, 1938 while water was being stored in millpond (gage height, 0.52 foot).

Remarks.- Records good. Gage read twice daily. No diversion or regulation. Small flow from Boulder Creek in Salmon River Basin enters Weiser River above station through trans-mountain diversion during late irrigation season.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.3	5.1	4.7	12	b9	191	579	70	16	7.9	5.0	4.0
2	5.5	4.5	4.9	28	b10	166	468	62	20	7.9	4.8	4.0
3	5.5	4.3	4.7	64	b10	136	367	62	16	7.4	4.5	4.3
4	5.5	4.3	4.7	57	10	120	278	62	16	7.7	4.5	6.0
5	8.5	4.3	4.5	48	14	110	278	62	16	7.7	5.0	6.9
6	12	4.3	4.3	42	18	96	231	55	14	7.4	4.6	6.0
7	7.6	4.3	4.3	32	16	91	216	52	14	6.9	4.8	5.2
8	5.5	4.3	5.1	29	21	100	202	48	14	7.4	4.3	4.8
9	5.1	4.3	13	28	22	*91	231	45	12	6.9	4.3	5.0
10	5.1	4.3	21	26	22	86	216	45	12	6.9	4.3	5.2
11	5.1	4.3	*12	23	20	82	202	42	11	6.5	4.3	5.0
12	5.1	4.3	8.7	22	22	78	188	42	10	6.2	4.3	5.0
13	5.1	4.3	6.8	19	22	70	202	38	9.8	5.7	4.3	6.7
14	4.9	4.3	6.3	18	22	62	216	36	9.4	5.5	4.1	8.5
15	4.9	4.5	6.6	16	b20	62	231	33	8.8	5.5	4.1	6.0
16	4.7	4.7	23	16	b20	70	202	30	8.5	5.7	4.1	5.7
17	4.7	4.7	26	b15	*22	78	168	34	8.5	6.5	4.3	5.5
18	4.7	4.7	23	b14	22	92	156	26	8.5	6.2	4.1	6.2
19	4.7	4.7	15	b9.0	19	96	144	25	8.1	5.7	4.0	6.7
20	4.7	4.7	12	b9.0	b15	101	162	22	7.4	5.7	3.8	6.2
21	4.7	4.5	12	b10	b15	127	144	22	7.4	5.5	3.8	5.7
22	4.7	4.3	10	b10	b16	144	127	20	7.2	5.3	3.7	5.7
23	4.9	4.3	9.7	b10	16	175	116	20	6.9	5.7	4.0	5.5
24	5.1	4.3	8.1	b10	16	202	111	18	6.9	5.5	4.0	5.0
25	5.1	4.3	7.4	b10	b20	330	101	18	6.9	5.3	3.8	5.0
26	4.9	4.3	8.1	10	50	556	92	17	6.5	5.7	3.8	5.0
27	4.9	4.3	7.4	10	126	725	87	16	6.7	7.2	3.8	5.2
28	5.1	4.3	7.1	10	230	533	82	16	7.7	6.7	4.0	5.3
29	5.3	4.3	7.4	10	230	447	78	16	7.9	5.5	3.8	5.7
30	5.1	4.5	10	9.7	-	511	74	16	7.4	5.3	3.8	8.6
31	5.1	-	9.7	b9.0	-	626	-	15	-	5.2	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	168.1	12	4.3	5.42	0.148	0.17	333
November	132.6	5.1	4.3	4.42	.121	.14	263
December	307.5	26	4.3	9.92	.272	.31	610
Calendar year 1939	10,146.5	272	4.3	27.8	.762	10.35	20,120
January	635.7	64	9.0	20.5	.562	.65	1,260
February	1,075	230	9	37.1	1.02	1.10	2,130
March	6,354	725	62	205	5.62	6.48	12,600
April	5,949	579	74	198	5.42	6.05	11,800
May	1,085	70	15	35.0	.959	1.11	2,150
June	311.5	20	6.5	10.4	.285	.32	618
July	196.2	7.9	5.2	6.33	.173	.20	389
August	129.8	5.0	3.7	4.19	.115	.13	257
September	169.8	8.8	4.0	5.66	.155	.17	337
Water year 1939-40	16,514.2	725	3.7	45.1	1.24	16.83	32,750

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Weiser River at Starkey, Idaho

Location.- Water-stage recorder, lat. 44°51', long. 116°27', in sec. 34, T. 18 N., R. 1 W., at Starkey Hot Springs (Starkey post office), 10 miles north of Council.

Drainage area.- 106 square miles.

Records available.- August to September 1920, March 1939 to September 1940.

Extremes.- Maximum discharge, 2,450 second-feet Mar. 27 (gage height, 6.00 feet), from logarithmic extension of rating curve above 700 second-feet; minimum, 8.0 second-feet Aug. 31, 1939, Aug. 23, 1940; minimum gage height, 1.04 feet Aug. 31, 1939.

Remarks.- Records good. Several small diversions above station.

Rating tables, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 27				Mar. 28 to Sept. 30			
1.1	9.5	3.5	540	1.1	6.5	3.6	540
1.4	22.5	3.8	680	1.4	16.5	4.0	735
1.7	51.5	4.1	840	1.7	36	4.4	970
2.0	95	4.4	1,030	2.0	70	4.8	1,260
2.3	151	4.7	1,250	2.4	138	5.2	1,600
2.6	221	5.0	1,490	2.8	237	5.6	1,990
2.9	305	5.3	1,760	3.2	373	6.0	2,420
3.2	410	5.7	2,140				

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	15	19	46	31	504	1,640	243	119	22	12	8.8
2	15	15	20	90	34	422	1,220	240	103	20	11	9.0
3	15	15	19	160	38	352	860	259	93	19	11	9.7
4	14	15	19	139	42	308	705	265	88	18	11	14
5	23	14	19	116	45	269	660	252	87	18	11	18
6	32	15	20	87	72	239	576	228	80	16	10	15
7	20	16	20	76	79	218	536	211	79	16	10	13
8	16	16	25	87	67	264	518	203	70	15	9.7	12
9	14	14	61	82	66	264	558	205	62	14	10	12
10	14	14	73	79	85	244	549	222	62	13	9.7	12
11	14	16	58	53	100	224	518	243	62	12	9.0	12
12	14	15	39	64	87	201	492	249	65	12	9.0	12
13	14	15	32	38	87	184	509	237	66	13	9.4	19
14	14	15	30	59	85	173	576	214	61	13	9.0	22
15	14	14	36	47	75	171	620	198	56	12	9.4	18
16	14	14	76	53	67	180	544	185	54	13	9.4	16
17	14	14	100	52	75	196	470	175	51	13	9.4	16
18	14	14	73	42	69	214	445	164	47	13	9.0	20
19	14	14	57	27	63	226	441	159	44	12	8.8	20
20	14	15	52	43	52	253	514	159	37	12	9.0	19
21	14	17	46	34	54	287	470	155	34	12	8.8	18
22	14	20	40	43	62	323	424	148	30	11	9.0	16
23	14	18	37	42	57	363	396	144	28	10	8.8	16
24	14	19	30	39	58	410	369	146	27	11	9.4	15
25	15	18	15	37	70	608	346	144	25	11	10	15
26	16	20	26	37	149	1,100	326	136	23	12	9.7	15
27	17	20	31	38	342	2,090	315	127	22	14	9.7	15
28	18	19	26	37	608	1,340	301	119	22	14	9.4	18
29	19	18	37	35	705	1,040	288	119	22	13	9.4	18
30	16	20	38	34	-	1,220	262	121	21	12	9.0	30
31	15	-	39	31	-	1,640	-	119	-	12	9.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	487	32	12	15.7	966
November	484	20	14	16.1	960
December	1,213	100	15	39.1	2,410
Calendar year	-	-	-	-	-
January	1,847	160	27	59.6	3,660
February	3,424	705	31	118	6,790
March	15,527	2,090	171	501	30,800
April	16,468	1,640	262	549	32,660
May	5,789	265	119	187	11,480
June	1,640	119	21	54.7	3,250
July	428	22	10	13.8	849
August	299.0	12	8.8	9.65	593
September	473.5	30	8.8	15.8	939
Water year 1939-40	48,079.5	2,090	8.8	131	95,360

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Weiser River near Council, Idaho

Location.- Water-stage recorder, lat. 44°41', long. 116°29', in sec. 29, T. 16 N., R. 1 W., 0.7 mile downstream from Cottonwood Creek, 2 miles upstream from Middle Fork of Weiser River, and 3½ miles southwest of Council.

Drainage area.- 390 square miles.

Records available.- April 1937 to September 1940.

Extremes.- Maximum discharge during year, 4,110 second-feet Mar. 31 (gage height, 8.46 feet), from rating curve extended above 2,500 second-feet by logarithmic plotting; minimum, 22 second-feet June 29 (gage height, 0.89 foot).
1937-40: Maximum discharge observed, 6,700 second-feet Mar. 16 or 17, 1938, from rating curve extended above 3,500 second-feet (gage height, 7.6 feet, from floodmark), site and datum then in use; minimum, that of June 29, 1940.

Remarks.- Records good. Flow regulated by Lost Valley Reservoir (see p. 184). Many diversions above station.

Rating table, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet.

0.9	22	3.4	527	6.4	2,140
1.2	41	3.7	630	6.8	2,460
1.5	76	4.0	745	7.2	2,810
1.8	121	4.4	920	7.6	3,180
2.1	176	4.8	1,115	8.0	3,580
2.4	242	5.2	1,330	8.5	4,110
2.7	317	5.6	1,570		
3.0	401	6.0	1,850		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	49	44	126	116	2,140	3,780	612	372	62	76	35
2	39	48	45	364	131	1,990	3,180	595	381	59	72	35
3	39	48	46	685	124	1,600	2,630	648	347	56	72	33
4	35	46	45	462	206	1,270	2,220	665	320	58	71	37
5	44	46	44	375	237	1,060	2,220	648	314	58	70	49
6	80	47	46	274	970	875	1,850	595	288	51	70	46
7	62	45	46	204	765	808	1,680	578	266	53	71	45
8	55	45	51	217	510	1,120	1,600	578	259	55	68	46
9	50	41	102	286	478	965	1,680	595	230	51	68	41
10	47	38	*182	375	898	852	1,600	665	212	52	67	43
11	41	40	121	230	705	725	1,480	765	199	51	64	40
12	39	42	*94	206	494	630	1,390	808	189	46	66	41
13	38	41	79	147	431	561	1,390	765	178	44	64	55
14	38	40	72	162	401	510	1,540	725	168	49	64	70
15	38	39	104	136	341	494	1,600	665	152	50	72	51
16	38	37	176	143	*291	510	1,480	612	140	50	77	39
17	39	35	180	142	314	544	1,300	578	126	51	77	39
18	39	35	147	131	312	578	1,190	544	99	49	79	43
19	39	36	119	96	276	595	1,190	510	82	45	76	55
20	39	35	110	b100	235	648	1,330	510	66	43	71	51
21	39	35	100	b100	217	705	1,240	494	53	44	73	55
22	39	39	89	110	247	785	1,140	494	47	43	73	51
23	39	43	83	111	215	852	1,060	494	39	42	72	43
24	39	43	77	108	206	942	990	510	33	42	72	39
25	41	41	62	104	462	1,240	942	494	32	43	75	37
26	44	44	59	107	1,330	2,060	898	462	28	45	71	39
27	47	46	b60	113	2,480	3,480	852	416	26	53	67	37
28	48	42	b70	111	3,080	2,990	830	384	24	53	67	50
29	50	41	73	105	2,900	2,630	808	375	28	49	66	56
30	50	44	84	100	-	2,990	725	375	51	61	51	90
31	48	-	94	110	-	3,680	-	364	-	73	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,358	80	35	43.8	2,690
November	1,251	49	35	41.7	2,480
December	2,704	182	44	87.2	5,360
Calendar year 1939	87,774	2,380	32	240	174,100
January	6,040	685	96	195	11,980
February	19,372	3,080	116	668	38,420
March	40,829	3,680	494	1,317	80,980
April	45,815	3,780	725	1,527	90,870
May	17,523	808	364	565	34,760
June	4,749	381	24	158	9,420
July	1,581	73	42	51.0	3,140
August	2,137	79	35	68.9	4,240
September	1,391	90	33	46.4	2,760
Water year 1939-40	144,750	3,780	24	395	287,100

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Weiser River near Cambridge, Idaho

Location.- Water-stage recorder, lat. 44°35', long. 116°38', in NE¼ sec. 1, T. 14 N., R. 3 W., 2¼ miles northeast of Cambridge.

Drainage area.- 605 square miles.

Records available.- March 1939 to September 1940.

Extremes.- Maximum discharge during year, 6,670 second-feet Mar. 31 (gage height, 8.30 feet); minimum, 25 second-feet Sept. 3 (gage height, 0.99 foot).
1939-40: Maximum discharge, that of Mar. 31, 1940; minimum, that of Sept. 3, 1940.

Remarks.- Records good. Flow regulated by Lost Valley Reservoir. (see p. 184). Diversion above station for irrigation.

Rating table, water year 1939-40, except period of ice effect, (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 27 to Mar. 30)

Oct. 1 to Feb. 26

1.2	43	2.7	321	4.6	1,225
1.5	77	3.0	415	5.0	1,485
1.8	120	3.4	565	5.4	1,765
2.1	174	3.8	755	5.8	2,070
2.4	241	4.2	980		

Feb. 27 to Sept. 30

1.0	26	3.4	651	6.0	2,590
1.4	64	3.8	870	6.5	3,250
1.8	125	4.2	1,115	7.0	4,040
2.2	206	4.6	1,380	7.5	4,950
2.6	318	5.0	1,660	8.0	5,990
3.0	467	5.5	2,080	8.3	6,670

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	71	62	122	a170	3,710	6,440	1,080	810	97	68	28
2	45	71	66	623	a180	3,040	5,560	1,120	840	92	66	27
3	53	71	68	1,190	193	2,370	4,570	1,240	728	92	65	27
4	48	68	68	755	351	1,820	3,320	1,240	661	89	65	30
5	56	66	66	610	436	1,520	3,550	1,180	661	90	61	46
6	135	67	67	443	1,770	1,280	2,780	1,120	597	76	59	44
7	102	68	68	324	1,480	1,150	2,370	1,080	555	72	58	40
8	80	67	71	330	950	1,660	2,220	1,080	524	73	54	44
9	74	64	138	474	838	1,420	2,370	1,180	463	72	53	42
10	72	56	348	705	1,520	1,240	2,270	1,310	434	72	53	42
11	67	58	224	429	1,290	1,080	2,040	1,520	414	66	52	42
12	63	64	164	345	*865	930	1,900	1,620	399	61	50	44
13	62	62	*130	246	730	810	1,940	1,590	387	54	53	58
14	61	63	117	248	680	755	2,170	1,450	355	54	55	108
15	60	59	139	248	592	702	2,270	1,380	321	58	54	82
16	60	58	307	239	485	702	2,080	1,280	290	60	65	66
17	60	55	373	217	525	728	1,820	1,240	264	61	65	60
18	60	58	271	213	549	755	1,780	1,220	236	54	64	61
19	59	58	204	a170	489	782	1,780	1,180	216	48	61	88
20	61	58	199	172	412	840	1,990	1,180	194	46	55	83
21	61	55	163	148	357	930	1,860	1,150	175	48	53	88
22	62	63	142	166	395	990	1,700	1,150	151	46	55	84
23	61	67	132	170	339	1,080	1,660	1,120	127	42	54	70
24	61	64	127	a160	315	1,180	1,560	1,150	111	40	52	62
25	62	66	84	a150	607	1,520	1,480	1,150	103	40	55	59
26	66	68	b80	a160	1,920	2,710	1,420	1,080	95	42	54	66
27	70	71	b80	157	4,390	5,990	1,420	960	83	50	50	61
28	71	68	b85	166	5,990	5,350	1,380	870	76	52	50	76
29	73	60	b90	163	5,560	4,480	1,340	840	68	50	50	95
30	74	62	b100	a150	-	5,560	1,220	840	76	48	48	129
31	72	-	b110	a150	-	6,440	-	810	-	64	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,051	135	40	66.2	4,070
November	1,906	71	55	63.5	3,780
December	4,343	373	62	140	8,610
Calendar year	-	-	-	-	-
January	9,843	1,190	122	318	19,520
February	34,378	5,990	170	1,185	68,190
March	63,524	6,440	702	2,049	126,000
April	70,260	6,440	1,220	2,342	139,400
May	36,410	1,620	810	1,175	72,220
June	10,414	840	68	347	20,660
July	1,909	97	40	61.6	3,790
August	1,729	68	32	55.8	3,430
September	1,852	129	27	61.7	3,670
Water year 1939-40	238,619	6,440	27	652	473,300

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

Weiser River above Crane Creek, near Weiser, Idaho

Location.- Water-stage recorder, lat. 44°18', long. 116°48', in sec. 10, T. 11 N., R. 4 W., 1 mile upstream from Crane Creek and 9 miles northeast of Weiser.

Drainage area.- 1,160 square miles.

Records available.- July 1920 to September 1940.

Average discharge.- 19 years (1921-40), 803 second-feet.

Extremes.- Maximum discharge during year, 15,100 second-feet Feb. 28 (gage height, 10.12 feet, from floodmark), from rating curve extended above 9,000 second-feet by logarithmic plotting; minimum, 24 second-feet Sept. 4 (gage height, 0.84 foot).
1920-40: Maximum discharge, 16,900 second-feet (revised) Mar. 19, 1932 (gage height, 10.8 feet, from floodmarks), from rating curve extended above 9,000 second-feet by logarithmic plotting; minimum, 5 second-feet (estimated) Aug. 11 to Sept. 10, 1931.

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

Rating table, water year 1939-40, except periods of ice effect, (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 16 to Aug. 7)

0.8	19	2.8	960	5.2	4,020
1.1	66	3.2	1,320	6.0	5,410
1.4	150	3.6	1,740	7.0	7,430
1.7	266	4.0	2,230	8.0	9,690
2.0	410	4.4	2,780	9.0	12,150
2.4	660	4.8	3,380	10.1	15,060

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	93	96	280	302	*6,580	11,400	1,680	1,440	47	39	36
2	41	93	96	570	321	5,600	8,540	1,610	1,550	85	51	28
3	42	93	101	1,540	395	4,700	6,180	1,800	1,380	83	53	28
4	51	90	101	1,220	667	3,300	5,050	1,920	1,240	83	49	30
5	60	90	101	1,050	1,000	3,080	a5,500	1,860	1,230	80	47	39
6	76	88	101	812	*3,180	a2,500	a4,500	1,680	1,130	83	49	44
7	164	88	101	570	4,280	a2,200	h3,700	1,630	1,020	73	49	55
8	131	90	104	471	2,230	3,080	3,700	1,630	976	66	47	56
9	107	90	115	525	1,740	2,710	4,020	1,740	872	66	44	56
10	98	88	300	1,290	2,780	2,300	3,860	1,920	812	73	39	60
11	96	83	384	1,020	3,000	a1,900	3,300	2,300	768	73	38	62
12	88	80	a315	653	1,980	a1,600	3,080	2,640	723	63	41	68
13	83	88	a250	525	a1,400	a1,400	3,000	2,640	681	62	39	76
14	80	88	*182	454	a1,300	a1,200	3,160	2,430	632	56	33	124
15	80	88	174	400	a1,100	a1,200	3,300	2,300	551	53	35	193
16	80	88	237	400	a900	1,180	3,160	2,100	477	59	38	144
17	78	85	443	395	a950	1,210	2,780	2,040	416	59	39	124
18	78	83	448	354	h1,010	1,200	2,640	1,980	349	55	44	118
19	76	85	325	316	a900	1,240	2,640	1,920	293	51	45	115
20	73	88	275	262	a700	1,270	2,860	1,980	245	44	44	157
21	73	96	253	275	a600	1,360	2,860	1,920	212	39	42	150
22	76	85	228	270	a700	1,450	2,570	1,980	174	33	36	160
23	73	90	204	280	a600	1,530	2,500	1,980	134	35	35	144
24	73	96	189	270	a550	1,680	2,360	1,980	112	33	41	124
25	76	96	157	270	1,020	1,980	2,230	2,040	98	26	42	115
26	83	96	b130	275	3,540	3,460	2,100	1,980	80	29	42	110
27	88	98	b110	288	9,000	7,210	2,100	1,740	71	30	44	110
28	93	101	b110	306	a14,000	7,430	2,040	1,680	58	44	38	115
29	93	98	b120	302	11,200	5,790	2,040	1,480	51	53	41	144
30	98	96	b130	293	-	8,090	1,860	1,520	49	47	41	182
31	98	-	b150	270	-	11,200	-	1,450	-	38	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,545	164	39	82.1	5,050
November	2,711	101	80	90.4	5,380
December	6,030	448	96	195	11,960
Calendar year 1939	207,776	5,600	22	569	412,100
January	16,206	1,540	262	523	32,140
February	71,345	14,000	302	2,460	141,500
March	100,630	11,200	1,180	3,246	199,600
April	109,030	11,400	1,860	3,634	216,300
May	59,450	2,640	1,450	1,918	117,900
June	17,824	1,550	49	594	35,350
July	1,733	85	26	55.9	3,440
August	1,306	53	33	42.1	2,590
September	2,967	193	28	98.9	5,880
Water year 1939-40	391,777	14,000	26	1,070	777,100

*Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for nearby stations on Weiser River.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

East Fork of Weiser River near Council, Idaho

Location.- Water-stage recorder, lat. 44°46', long. 116°16', in SE¼ sec. 31, T. 17 N., R. 2 E., three-quarters of a mile southwest of Squaw Creek ranger station and 9 miles northeast of Council. Datum of gage is 6,224.1 feet above mean sea level.

Drainage area.- 2.0 square miles.

Records available.- September 1932 to September 1940 (fragmentary).

Extremes.- Maximum discharge recorded during year, 55 second-feet May 24 (gage height, 3.09 feet); probably no flow at times during winter.
1932-40: Maximum discharge recorded, 77 second-feet June 16, 1938 from rating curve extended above 50 second-feet; maximum gage height recorded, 4.11 feet June 9, 1933 (ice affected); no flow Apr. 8, 1937, and probably no flow at times during winters of 1937-38, 1938-39, 1939-40.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.7						a10	40	7.9	1.4	0.8
2	.8	.7						11	37	7.3	1.4	.8
3	.8	.7						11	34	6.8	1.3	.8
4	.8	b.6						10	31	6.4	1.2	1.1
5	3.3	b.6						9.5	31	5.8	1.1	1.1
6	1.5	b.7						9.5	30	5.4	1.1	.9
7	1.1	.7						9.7	27	4.7	1.1	.9
8	1.1	.7						11	22	4.3	1.1	1.0
9	1.0	b.6						15	23	4.1	1.1	.9
10	1.0	b.6						20	25	3.8	1.0	1.1
11	1.0	b.6						28	28	3.5	1.0	.9
12	1.0	.7						31	33	3.1	1.0	.9
13	1.0	.7						31	33	3.0	1.1	2.1
14	1.1	.7						27	30	2.7	1.1	1.2
15	1.1	b.6						28	28	2.5	1.1	1.1
16	1.1	b.6						28	26	2.5	1.1	1.2
17	1.1	b.6						29	25	2.5	1.1	1.1
18	1.1	b.6						29	24	2.4	1.1	1.9
19	1.1	b.6						32	24	2.4	1.1	1.2
20	1.0	.6						34	22	2.4	1.0	1.2
21	1.0	.6						37	19	2.3	1.0	1.1
22	1.0	.6						37	17	2.3	1.0	1.0
23	1.1	.5						41	15	2.0	.9	1.0
24	1.1	.5						46	14	2.0	.9	.9
25	b1.0	.5						46	13	1.9	.9	1.0
26	b.8	.5						42	12	2.0	1.0	.9
27	*b.8	b.5						38	11	2.0	.9	.8
28	.8	b.5						36	9.5	1.9	.9	1.0
29	.8	b.4						40	9.0	1.8	.9	1.0
30	.7	b.4						41	8.6	1.5	.8	1.2
31	.7	-						42	-	1.5	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	32.4	3.3	0.6	1.05	0.525	0.61	64
November	17.9	.7	.4	.60	.300	.33	36
December	-	-	-	-	-	-	--
Calendar year	-	-	-	-	-	-	-
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-
May	859.7	46	9.5	27.7	13.8	15.9	1,710
June	701.1	40	8.6	23.4	11.7	13.0	1,390
July	104.7	7.9	1.5	3.38	1.69	1.95	208
August	32.5	1.4	.8	1.05	.525	.61	64
September	32.1	2.1	.8	1.07	.535	.60	64
Water year	-	-	-	-	-	-	-

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

West Fork of Weiser River near Fruitvale, Idaho

Location.- Staff gage, lat. 44°50', long. 116°28', in NW¼ sec. 9, T. 17 N., R. 1 W., at Taylor Ranch, 1¼ miles northwest of Fruitvale and 1½ miles upstream from mouth.

Drainage area.- 78 square miles.

Records available.- October 1910 to January 1913, October 1919 to September 1925, April 1937 to September 1940.

Extremes.- Maximum discharge observed during year, 1,170 second-feet Mar. 31 (gage height, 3.79 feet); minimum discharge, less than 2 second-feet mornings of Nov. 14-19. 1910-13, 1919-25, 1937-40: Maximum discharge observed, that of Mar. 31, 1940; minimum discharge, 0.5 second-foot July 23-27, 1911.

Remarks.- Records good except those for periods of ice effect, or when stage was below gage, which are fair. Gage read twice daily. Several diversions both above and below station for irrigation. Flow regulated by Lost Valley Reservoir (see p. 184).

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	16	6	11	14	241	935	123	52	46	79	37
2	27	16	7	17	14	253	595	103	55	46	76	34
3	22	16	6	44	15	197	680	114	58	44	79	36
4	20	16	6	37	20	159	502	129	56	44	79	46
5	30	16	5	30	23	139	568	136	55	44	79	42
6	30	10	6	22	91	120	522	139	46	40	76	37
7	24	9	6	25	68	107	500	140	44	42	76	37
8	25	6	7	24	53	126	480	140	42	40	75	33
9	24	5	11	25	46	131	518	142	35	42	76	26
10	16	6	14	26	75	112	590	150	33	44	73	28
11	14	6	10	19	68	98	568	168	30	44	76	30
12	14	6	e	22	53	85	545	177	25	40	73	25
13	14	5	8	17	50	74	480	168	26	40	76	44
14	14	e3	7	18	44	68	590	168	23	48	70	30
15	14	e3	9	16	37	67	635	159	24	46	83	5
16	14	e3	13	14	34	72	568	142	19	46	82	5
17	14	e2	14	17	36	76	480	136	17	46	79	4
18	14	e3	14	12	31	87	440	120	14	44	80	6
19	14	e3	10	b10	28	97	440	103	12	42	82	6
20	14	4	9	b10	30	108	480	93	10	42	80	7
21	14	3	8	b9	37	126	440	87	9	42	79	6
22	14	5	6	b10	26	142	368	83	8	42	79	6
23	14	5	b5	b10	21	150	350	83	7	42	79	5
24	14	5	b4	b10	22	168	335	79	8	40	76	5
25	14	5	b2	10	33	218	305	72	8	44	75	6
26	15	6	b3	13	137	350	278	63	6	48	75	5
27	16	7	b4	10	324	1,090	278	63	5	50	74	5
28	16	6	b6	12	490	702	253	56	4	40	74	6
29	16	8	8	10	222	680	241	55	46	46	73	6
30	16	7	8	16	-	880	218	46	50	62	38	16
31	16	-	8	15	-	1,170	-	46	-	84	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	548	30	14	17.7	1,090
November	211	16	2	7.0	419
December	238	14	2	7.7	472
Calendar year 1939	20,711.7	320	2	56.7	41,070
January	541	44	9	17.5	1,070
February	2,142	490	14	73.9	4,250
March	8,093	1,170	67	261	16,050
April	14,182	935	218	473	28,130
May	3,483	177	46	112	6,910
June	827	58	4	27.6	1,640
July	1,410	84	40	45.5	2,800
August	2,308	83	37	74.5	4,580
September	584	46	4	19.5	1,160
Water year 1939-40	34,567	1,170	2	94.4	68,570

b Stage-discharge relation affected by ice.
e Stage below zero of staff gage at time of morning reading; discharge computed from partly estimated gage-height record.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Lost Valley Reservoir near Tamarack, Idaho

Location.- Staff gage, lat. 44°57'30", long. 116°28', in sec. 28, T. 19 N., R. 1 W., a short distance upstream from outlet gates near left end of dam on Lost Creek, 4 miles west of Tamarack, and 16 miles north of Council.

Drainage area.- 29.4 square miles.

Records available.- May to September 1924, May 1926 to September 1940.

Extremes.- Maximum gage height observed during year, 26.90 feet May 14; minimum observed, 9.10 feet Nov. 7.
1924, 1926-40: Maximum gage height observed, that of May 14, 1940; gage not read when reservoir was nearly empty.

Remarks.- Reservoir is formed by earth dam, completed in 1910 and raised 6 feet in 1929. Permanent spillway crest is at gage height 22.26 feet; during 1938 temporary flashboard structure was raised to permit storage to gage height about 26 feet. Water is used for irrigation of lands in Weiser River Basin.

Cooperation.- Gage-height record furnished by owners of Lost Valley Reservoir.

Gage height, in feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-		-	-	25.50	-	-	-	-	-
2	-	-	-		-	-	-	-	-	-	-	-
3	-	-	9.51		-	-	-	26.10	-	-	-	-
4	-	-	-		-	-	-	-	-	-	-	-
5	-	-	-		13.86	-	-	-	-	-	-	-
6	-	-	-		-	-	-	-	-	-	-	-
7	-	9.31	-		-	-	-	-	-	-	-	13.06
8	-	-	-		-	-	25.80	26.63	-	-	-	-
9	9.99	-	-		-	-	-	-	-	-	19.25	-
10	-	-	-		-	-	-	-	-	-	-	12.86
11	-	-	10.01		-	17.71	25.83	-	-	-	-	-
12	-	-	-		-	-	-	-	26.50	-	-	-
13	-	-	-		-	-	-	-	-	-	18.46	-
14	-	-	-		-	-	-	26.90	-	-	18.05	-
15	-	-	-		13.86	-	-	-	-	23.78	-	-
16	-	-	-		-	-	-	-	-	-	-	-
17	-	-	-		-	-	-	-	-	23.57	-	-
18	-	-	-		-	-	-	26.72	-	-	-	-
19	-	-	-		-	-	-	-	26.13	-	-	-
20	-	9.46	-		-	-	-	-	-	-	16.51	-
21	-	-	-		-	-	-	26.70	-	-	-	-
22	-	-	-		-	-	-	26.68	26.40	-	-	-
23	-	-	-		-	-	26.00	-	-	-	-	-
24	-	-	-		-	-	-	26.30	-	-	-	-
25	-	-	-		-	-	-	-	-	22.50	-	-
26	9.61	-	-		-	-	-	-	-	-	-	-
27	-	-	-		-	-	-	-	-	-	-	-
28	-	-	-		-	-	-	-	26.00	-	-	-
29	-	-	-		-	-	25.60	26.55	-	22.05	-	-
30	-	-	-		-	-	25.60	-	-	-	-	-
31	-	-	-		-	-	-	-	-	-	-	-

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

21176 O U.S. GOVERNMENT PRINTING OFFICE 1937

Lost Creek near Tamarack, Idaho

Location.- Water-stage recorder, lat. 44°57', long. 116°28', in sec. 28, T. 19 N., R. 1 W., a quarter of a mile downstream from dam of Lost Valley Reservoir, 4 miles west of Tamarack, and 16 miles north of Council.

Drainage area.- 29.4 square miles.

Records available.- January 1910 to August 1914, May 1920 to September 1921, May 1924 to September 1940.

Average discharge.- 10 years (1930-40), 32.1 second-feet.

Extremes.- Maximum discharge during year, 332 second-feet Apr. 2 (gage height, 3.05 feet); practically no flow Nov. 7.
1910-14, 1920-21, 1924-40: Maximum discharge, about 688 second-feet May 17, 18, 1921 (gage height, 4.29 feet); practically no flow at times when gates in dam were closed.

Remarks.- Records good. No diversion between reservoir and station; practically entire flow diverted below station during irrigation season. Flow regulated by Lost Valley Reservoir (see p. 184).

Cooperation.- Gage-height record furnished by owners of Lost Valley Reservoir.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

0.8	0.5	1.7	36.0	2.8	247
1.0	2.0	1.9	57.5	3.1	350
1.3	9.0	2.2	99		
1.5	19.5	2.5	160		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	13	4		4	2	290	46	41	53	86	39
2	25	14	4		4	2	322	32	44	52	86	39
3	25	14	4		4	2	298	36	44	51	86	39
4	24	14	4		4	2	257	52	41	49	86	39
5	24	11	4		h2	2	219	69	38	49	84	38
6	25	6	4		1	2	193	83	34	49	84	38
7	25	4	4		1	2	179	86	32	49	83	35
8	26	5	4		1	2	171	90	32	49	83	31
9	21	5	4		1	2	174	92	28	49	83	31
10	15	5	4		1	2	174	93	26	49	81	30
11	14	4	3		1	2	168	101	25	49	80	29
12	15	3	3		1	2	165	108	23	49	80	29
13	15	1	3		1	2	165	111	21	49	80	29
14	15	1	3		1	2	187	114	19	49	84	19
15	16	1	4	4	1	2	216	113	17	49	90	6
16	16	1	4		1	2	222	109	16	48	90	5
17	16	1	4		1	2	210	102	14	49	88	5
18	16	1	3		1	2	196	86	12	49	88	5
19	15	1	3		1	2	193	74	10	49	88	5
20	14	2	3		1	2	202	71	10	48	87	5
21	14	4	3		1	2	204	69	10	48	87	5
22	14	4	3		1	2	196	69	9	47	87	5
23	14	4	4		1	2	187	70	9	47	86	5
24	14	4	4		1	2	179	65	9	47	86	5
25	13	4	4		1	2	171	60	9	47	86	5
26	13	4	4		1	2	160	54	8	47	84	5
27	13	4	4		1	3	150	52	8	46	83	5
28	13	4	4		1	5	143	49	25	46	81	5
29	13	4	4		1	43	136	46	55	60	68	5
30	13	4	4		-	99	86	41	54	86	39	5
31	13	-	4		-	179	-	40	-	86	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	534	26	13	17.2	1,060
November	147	14	1	4.9	292
December	115	4	3	3.7	228
Calendar year 1939	10,820	158	1	29.6	21,470
January	124	-	-	4.0	246
February	42	4	1	1.4	83
March	381	179	2	12.3	756
April	5,819	322	86	194	11,540
May	2,283	114	32	73.6	4,530
June	723	55	8	24.1	1,430
July	1,594	86	46	51.4	3,160
August	2,523	90	39	81.4	5,000
September	546	39	5	18.2	1,080
Water year 1939-40	14,831	322	1	40.5	29,400

h Computed from staff-gage reading.
Note.- No gage-height record Nov. 28 to Dec. 2, Dec. 27 to Feb. 4, Feb. 6-14, Feb. 21 to Mar. 10, June 13-18; discharge interpolated or computed on basis of assumed gate change on Feb. 5.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Hornet Creek near Council, Idaho

Location.- Staff gage, lat. 44°45', long. 116°29', in sec. 5, T. 16 N., R. 1 W., 2¼ miles upstream from mouth and 2.5 miles northwest of Council.

Drainage area.- 107 square miles.

Records available.- April 1937 to September 1940 (fragmentary prior to August 1939).

Extremes.- Maximum discharge observed during year, 1,180 second-feet Feb. 28 (gage height, 4.90 feet); minimum observed, 0.1 second-foot July 7, 8, 15, 16, 20-22, Aug. 16-19, Sept. 1; minimum observed gage height, 0.74 foot Oct. 1.
1937-39: Maximum discharge observed, that of Feb. 28, 1940; no flow Aug. 19, 20, 1939, and probably at times during periods of no record.

Remarks.- Records fair. Gage read once daily. Several diversions above station for irrigation.

Cooperation.- Results of eight discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	7.4	7.8	15	15	525	940	98	75	0.5	0.6	0.1
2	.2	7.4	7.8	73	14	615	665	98	104	.4	.5	.2
3	.4	7.4	7.8	135	15	396	502	122	78	.2	.5	.2
4	.2	6.6	7.8	94	35	286	396	119	72	.3	.2	.3
5	2.2	7.4	7.8	60	39	255	480	109	71	.4	.3	1.3
6	5.4	7.4	7.8	33	119	200	376	100	66	.2	.3	.4
7	4.2	8.2	7.8	23	165	176	320	100	58	.1	.2	.2
8	2.7	8.2	8.7	31	107	240	286	100	53	.1	.2	.3
9	2.7	7.4	22	31	95	200	303	109	48	.2	.2	.3
10	1.7	7.4	38	45	200	176	270	130	42	.3	.2	.4
11	3.4	8.2	22	20	154	144	255	154	37	.3	.2	.4
12	3.4	8.2	13	30	101	121	240	165	35	.3	.2	.3
13	3.2	7.4	12	13	100	104	226	165	33	.2	.2	.6
14	3.2	7.4	9.8	24	92	101	240	154	30	.3	.4	1.5
15	3.4	7.4	18	15	64	101	240	131	30	.1	.3	1.7
16	4.0	7.4	47	18	40	107	200	121	26	.1	.1	1.7
17	4.6	7.4	31	17	57	117	188	114	24	.2	.1	3.2
18	4.6	5.8	20	17	54	124	176	111	12	.2	.1	2.7
19	4.6	5.4	16	9.3	45	130	165	111	15	.2	.1	6.6
20	4.6	6.2	15	14	20	144	188	107	9.8	.1	.2	7.4
21	4.2	4.6	14	11	16	154	165	107	6.2	.1	.2	12
22	4.2	7.0	13	14	38	165	154	101	5.4	.1	.2	8.2
23	4.2	7.0	11	13	24	165	144	121	5.4	.2	.2	6.6
24	4.6	7.0	7.8	14	21	176	135	124	1.2	.3	.2	5.8
25	5.4	6.2	6.2	14	75	226	124	128	1.6	.3	.3	3.7
26	5.8	7.0	4.6	14	255	286	117	121	1.2	.3	.2	4.2
27	5.8	6.2	9.3	14	802	940	117	101	.9	.8	.2	3.7
28	6.6	5.4	9.3	15	1,020	640	114	92	.6	.4	.3	5.8
29	6.6	6.2	11	11	770	548	114	86	.6	.2	.3	10
30	6.6	7.8	11	9.3	-	592	104	89	.4	.4	.2	15
31	6.6	-	12	12	-	940	-	78	-	.5	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	119.5	6.6	0.2	3.85	237
November	210.0	8.2	4.6	7.00	417
December	436.3	47	4.6	14.1	865
Calendar year	-	-	-	-	-
January	858.6	135	9.3	27.7	1,700
February	4,532	1,020	14	157	9,030
March	9,094	940	101	293	18,040
April	7,944	940	104	265	15,760
May	3,566	165	78	115	7,070
June	942.3	104	.4	31.4	1,870
July	8.3	.8	.1	.27	16
August	7.6	.6	.1	.25	15
September	104.8	15	.1	3.49	208
Water year 1939-40	27,843.4	1,020	.1	76.1	55,230

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Middle Fork of Weiser River near Mesa, Idaho

Location.- Staff gage, lat. 44°39', long. 116°27', in NW¼ sec. 10, T. 15 N., R. 1 W., at old highway bridge, 1⅝ miles north of Mesa and 2⅛ miles upstream from mouth. Datum lowered 1.00 foot July 16.

Drainage area.- 86.5 square miles.

Records available.- August 1919 to November 1921, April 1937 to September 1940. October 1910 to August 1913, at site three-quarters of a mile upstream.

Extremes.- Maximum discharge observed during year, 1,140 second-feet Mar. 31 (gage height, 4.30 feet, present datum), from rating curve extended above 400 second-feet on basis of shape of the previous curve; no flow July 23-26, July 30 to Sept. 9, Sept. 12.
1919-21, 1937-40: Maximum discharge observed, 1,380 second-feet May 1, 1938, from rating curve extended above 1,000 second-feet; maximum gage height observed, 4.88 feet (present datum) Dec. 11, 1937; no flow at times in 1937, 1939, 1940.

Remarks.- Records good except those for periods of ice effect, which are fair. Gage read twice daily. Mesa Orchards canal diverts about 6½ miles above station.

Cooperation.- Result of one discharge measurement furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	17	15	101	b45	269	695	287	271	50		0
2	33	16	15	164	b45	258	540	310	280	37		0
3	15	15	16	131	b45	198	470	357	225	35		0
4	10	15	17	102	49	171	396	327	217	31		0
5	19	15	17	136	59	149	447	320	209	28		0
6	20	15	17	83	236	131	376	310	190	26		0
7	18	16	17	72	131	129	327	315	185	25		0
8	13	16	22	66	88	246	327	320	172	23		0
9	18	14	112	87	95	140	404	385	148	16		0
10	18	13	96	82	204	136	360	468	146	16		5
11	16	17	116	58	121	133	346	566	144	16		1
12	17	17	63	52	93	120	327	590	148	7		0
13	17	17	36	52	77	108	310	516	148	4		28
14	16	11	31	52	74	107	447	492	137	5		20
15	16	15	72	49	61	103	404	447	120	5		13
16	17	17	190	51	56	93	372	426	107	7		11
17	17	18	102	41	55	102	346	426	101	11		9
18	15	18	76	40	52	100	364	426	101	4		16
19	15	18	58	b35	51	103	357	426	96	3		18
20	17	18	47	b40	49	108	470	396	88	4		22
21	16	15	31	b35	47	110	404	404	80	3		18
22	15	15	22	40	44	114	372	404	70	2		16
23	15	15	b20	38	46	127	364	384	68	0		12
24	17	14	b16	40	47	129	349	384	62	0		12
25	16	14	b16	b45	59	269	346	384	55	0		13
26	16	14	b20	b46	354	575	342	388	55	0		12
27	16	18	b20	b45	605	805	349	324	52	2		15
28	16	14	b25	b45	545	435	364	287	48	1		26
29	17	11	27	b45	410	360	310	310	44	1		24
30	17	13	30	b45	-	996	300	277	44	0		50
31	17	-	47	b45	-	1,000	-	274	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	532	33	10	17.2	1,060
November	461	18	11	15.4	914
December	1,415	190	15	45.6	2,810
Calendar year 1939	27,606.3	575	0	75.6	54,760
January	1,962	164	35	63.3	3,890
February	3,843	605	44	133	7,620
March	7,844	1,000	93	253	15,560
April	11,585	695	300	386	22,890
May	11,928	590	274	385	23,660
June	3,811	280	44	127	7,560
July	362	50	0	11.7	718
August	0	0	0	0	0
September	341	50	0	11.4	676
Water year 1939-40	44,084	1,000	0	120	87,360

b Stage-discharge relation affected by ice.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Mesa Orchards canal near Mesa, Idaho

Location.- Staff gage, lat. 44°38', long. 116°25', in sec. 14, T. 15 N., R. 1 W., 1,500 feet upstream from end of flume, 1½ miles northeast of Mesa, and 3 miles downstream from head gates.

Records available.- 1924, 1928, and 1930-40 (irrigation seasons only).

Extremes.- Maximum discharge observed during period, 38 second-feet June 18, 19 (gage height, 2.32 feet); no flow at times.
1924, 1928, 1930-40: Maximum discharge observed, that of June 18, 19, 1940; no flow during nonirrigation seasons.

Remarks.- Records fair to July 12; good, July 13 to Sept. 30. Canal diverts water from Middle Fork of Weiser River in SE¼NW¼ sec. 9, T. 15 N., R. 1 E., for irrigation of Mesa orchards and for domestic supply of Mesa. Flow regulated by operation of gates in diversion dam and of waste gates in flume above gage.

Cooperation.- Gage-height record furnished by operators of Mesa orchards. Results of two discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6						8	a1	32	35	26	16
2	6						8	1	32	36	26	16
3	6						6	a1	29	36	25	17
4	a4						6	a1	28	36	24	20
5	-						7	a1	28	34	23	21
6	-						7	8	25	33	23	20
7	-						7	a8	24	32	22	18
8	-						7	a9	24	33	22	19
9	-						7	9	23	34	22	18
10	-						7	10	24	35	21	20
11	-						a8	9	25	35	21	18
12	-						8	10	27	35	21	19
13	-						a8	13	29	37	20	11
14	-						a8	15	33	36	20	4
15	-						8	17	35	33	20	-
16	-						a8	17	36	32	19	-
17	-						a8	17	37	25	19	-
18	-						4	17	37	22	18	-
19	-						a1	18	37	30	18	-
20	-						a1	20	36	29	18	-
21	-						a1	23	37	30	18	-
22	-						a1	23	36	29	18	-
23	-						1	26	35	29	17	-
24	-						a1	31	35	30	17	-
25	-						1	28	34	30	18	-
26	-						a1	30	35	30	17	-
27	-						a1	30	34	32	17	-
28	-						a1	31	30	30	17	-
29	-						1	32	34	27	17	-
30	2						a1	33	34	27	16	-
31	-						-	32	-	26	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	142	8	1	4.7	282
May	521	33	1	16.8	1,030
June	945	37	23	31.5	1,870
July	978	37	22	31.5	1,940
August	616	26	16	19.9	1,220
September 1-14	237	21	4	16.9	470
The period	-	-	-	-	6,810

a No gage-height record; discharge interpolated or estimated.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Rush Creek at Cambridge, Idaho

Location.- Staff gage, lat. 44°35', long. 116°40', in SW¼ sec. 2, T. 14 N., R. 3 W., in Cambridge, 150 feet upstream from Superior Street and three-eighths of a mile upstream from mouth.

Records available.- March 1938 to September 1940.

Extremes.- Maximum discharge observed, 396 second-feet Mar. 31 (gage height, 5.31 feet); no flow at times.
1938-40: Maximum discharge observed, 582 second-feet (discharge measurement) Mar. 16, 1938 (gage height, 6.07 feet); no flow at times each year.

Remarks.- Records good. Gage read twice daily. Several diversions above station for irrigation. Flow regulated slightly by power plant 8 miles above station.

Cooperation.- Result of one discharge measurement furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.8	1.4	6.2	7.0	87	243	60	204	0.2		0
2	0	.7	1.4	16	9.2	120	143	72	180	.2		0
3	0	.6	1.4	36	7.6	64	102	102	169	.2		0
4	0	.8	1.4	20	18	52	82	102	158	.1		0
5	0	.8	2.4	13	18	39	102	87	137	.1		.6
6	0	.7	2.1	9.2	136	36	82	82	127	.6		.4
7	0	.6	2.1	5.9	60	36	77	92	112	.6		.2
8	0	.6	2.8	8.6	38	52	66	107	102	.6		.2
9	0	.8	6.4	36	35	36	64	132	97	.4		.2
10	0	.6	21	21	50	33	60	169	92	.5		.1
11	0	.6	5.9	12	38	28	56	231	92	.5		1.6
12	0	1.1	3.5	9.9	27	24	51	245	92	.4		.6
13	0	.6	3.3	11	24	23	51	260	77	.2		4.2
14	0	.7	3.7	8.3	33	22	64	231	72	.2		6.7
15	0	.7	4.2	7.0	29	20	66	217	64	0		3.7
16	0	.6	5.9	6.3	20	16	60	217	52	.1		4.8
17	0	1.2	6.4	7.0	37	18	56	204	42	.1		1.7
18	.1	1.1	4.8	5.9	35	16	64	204	31	.2		2.6
19	0	1.2	3.7	7.6	30	18	66	192	26	.1		6.7
20	.1	.9	4.2	6.2	29	16	67	217	20	.1		7.0
21	.2	1.5	3.7	5.9	19	18	72	217	14	.1		7.0
22	.1	1.3	3.5	6.7	16	20	72	260	8.9	.1		6.2
23	.1	1.5	3.3	5.0	14	19	77	260	6.4	.1		5.3
24	.1	1.9	b3.2	5.0	12	22	77	275	4.8	0		4.8
25	.1	1.5	b3.2	5.3	34	39	77	275	3.3	0		4.2
26	.2	1.4	4.0	7.0	106	112	72	245	.9	0		3.7
27	.2	1.4	4.2	5.9	275	112	72	137	1.2	0		3.0
28	.2	1.4	4.8	4.8	291	92	72	192	.5	0		4.8
29	.2	1.2	4.8	5.3	137	120	68	192	.3	0		5.6
30	.2	1.2	5.0	6.0	-	180	64	192	.2	0		11
31	.8	-	5.3	12	-	319	-	192	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2.6	0.8	0	0.84	5.2
November	30.4	1.9	.6	1.01	60
December	133.0	21	1.4	4.29	264
Calendar year 1939	7,256.3	158	0	19.9	14,400
January	328.0	36	4.8	10.6	651
February	1,584.8	291	7.0	54.6	3,140
March	1,815	319	18	58.5	3,600
April	2,371	243	51	79.0	4,700
May	5,660	275	60	183	11,230
June	1,986.5	204	.2	66.2	3,940
July	5.7	.6	0	.18	11
August	0	0	0	0	0
September	96.9	11	0	3.23	192
Water year 1939-40	14,013.9	319	0	38.3	27,790

b Stage-discharge relation affected by ice.

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Pine Creek near Cambridge, Idaho

Location.- Staff gage, lat. 44°35', long. 116°44', in SW¼ sec. 32, T. 15 N., R. 3 W., 300 feet upstream from mouth of West Fork and 3.2 miles northwest of Cambridge.

Records available.- April 1938 to September 1940.

Extremes.- Maximum discharge observed during year, 392 second-feet Apr. 1 (gage height, 3.28 feet), from rating curve extended above 250 second-feet; minimum observed, 2 second-feet on several days; minimum gage height observed, 0.36 foot Oct. 1.
1938-40: Maximum discharge observed, that of Apr. 1, 1940; minimum observed, 2 second-feet on several days July to October 1939 and July and August 1940; minimum gage height, 0.34 foot July 24, 1939.

Remarks.- Records good. Gage read twice daily. Several diversions above station for irrigation.

Cooperation.- Results of two discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	6	6	12	11	186	348	55	127	7	2	3
2	3	6	7	17	10	179	255	62	111	6	3	3
3	3	6	7	21	11	135	207	84	96	7	2	4
4	3	6	6	18	18	119	179	88	85	7	2	7
5	4	6	6	13	19	103	170	80	71	6	3	14
6	4	6	6	11	103	81	152	68	73	6	3	7
7	4	6	6	8	42	77	135	71	68	5	4	6
8	4	6	7	11	30	81	127	65	60	6	3	6
9	3	6	9	12	29	75	127	111	51	6	2	6
10	4	6	13	14	45	70	119	135	48	5	2	6
11	3	6	12	14	35	62	96	170	51	4	2	6
12	4	6	11	12	30	56	96	161	54	6	2	6
13	4	6	8	11	28	50	96	170	46	5	2	8
14	4	6	8	11	26	47	103	135	41	5	2	9
15	4	6	8	9	22	44	88	135	36	5	2	8
16	3	6	9	9	22	44	85	119	36	4	2	11
17	4	6	8	10	24	43	64	119	26	3	2	10
18	4	6	8	10	21	43	85	119	24	3	3	10
19	3	6	8	8	18	44	82	118	19	3	3	10
20	4	6	7	9	14	44	88	135	17	3	3	10
21	4	6	7	8	12	46	82	127	15	3	3	9
22	4	6	7	9	13	46	80	135	13	2	3	9
23	4	7	7	9	14	46	88	152	13	2	3	10
24	5	7	7	9	16	51	77	161	12	2	3	10
25	4	6	8	10	22	70	71	161	12	2	3	10
26	5	6	9	10	50	118	69	161	12	3	3	10
27	5	6	10	10	234	207	69	135	11	2	3	10
28	6	6	10	9	327	152	69	111	8	2	3	11
29	6	6	9	10	236	178	61	119	6	2	3	12
30	6	6	9	11	-	225	56	127	6	2	3	13
31	6	-	10	11	-	342	-	119	-	3	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	126	6	2	4.1	250
November	182	7	6	6.1	361
December	253	13	6	8.2	502
Calendar year 1939	6,988	136	2	19.1	13,860
January	346	21	8	11.2	686
February	1,482	327	10	51.1	2,940
March	3,066	342	43	98.9	6,080
April	3,444	348	56	115	6,830
May	3,708	170	55	120	7,350
June	1,248	127	6	41.6	2,480
July	127	7	2	4.1	252
August	81	4	2	2.6	161
September	254	14	3	8.5	504
Water year 1939-40	14,317	348	2	39.1	28,400

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Little Weiser River near Indian Valley, Idaho

Location.- Staff gage, lat. 44°30', long. 116°24', in NE¼ sec. 1, T. 13 N., R. 1 W., 60 feet downstream from barn at Richardson Ranch, about 1 mile upstream from diversion feeding C. Ben Ross Reservoir, and 4¾ miles southeast of Indian Valley.

Drainage area.- 81.9 square miles.

Records available.- April 1938 to September 1940. June 1920 to February 1921, March to September 1923, and February 1924 to October 1927 at nearby sites.

Extremes.- Maximum discharge observed during year, 626 second-feet Feb. 27 (gage height, 5.80 feet); minimum observed, 6 second-feet Aug. 22 to Sept. 3; minimum gage height observed, 0.25 foot Aug. 27 to Sept. 3.
1920-21, 1923-27, 1938-40: Maximum discharge observed, about 1,840 second-feet Feb. 4, 1925; minimum observed, 3.6 second-feet Aug. 28-30, Sept. 4, 5, 1924.

Remarks.- Records good except those for periods of doubtful gage-height record, which are poor. Gage read twice daily. One small ranch diversion above station. Many diversions below station for irrigation including feeder canal to C. Ben Ross reservoir.

Cooperation.- Results of three discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	9	10	99	31	332	516	242	292	38	14	6
2	7	9	10	d120	32	266	518	230	292	36	14	6
3	7	9	10	d100	37	186	419	279	279	34	14	6
4	8	9	10	80	52	165	360	292	266	34	14	9
5	13	9	10	86	49	146	419	266	332	34	14	11
6	12	9	10	d86	196	129	360	254	305	30	14	9
7	11	8	10	d60	156	121	318	254	196	26	14	8
8	10	8	25	d70	156	305	305	254	165	25	14	8
9	10	7	32	75	d120	113	318	279	146	24	14	8
10	9	7	32	80	138	113	360	292	146	23	14	8
11	9	7	26	40	121	138	360	305	138	23	13	8
12	9	8	d16	38	121	121	332	484	129	23	12	9
13	9	8	d20	36	80	113	318	451	121	23	13	28
14	8	8	24	34	70	106	305	419	113	21	11	26
15	8	8	26	34	65	99	389	419	106	22	10	9
16	8	8	37	32	60	106	332	389	106	23	9	9
17	8	9	56	30	60	106	318	389	92	22	9	9
18	8	9	30	30	65	113	305	389	86	22	9	8
19	8	10	22	26	60	121	305	389	80	21	9	9
20	8	11	18	26	51	138	360	389	75	23	8	10
21	8	11	15	26	50	138	305	389	70	14	8	11
22	8	11	12	25	48	129	279	419	56	14	6	12
23	8	11	b11	25	45	146	305	360	52	16	6	12
24	9	11	b10	25	43	156	292	292	50	16	6	12
25	10	11	b10	25	242	360	279	389	48	16	6	12
26	10	10	b11	25	484	339	279	389	47	16	6	13
27	10	10	b11	26	626	419	279	332	45	16	6	17
28	10	10	b11	27	451	518	266	318	a44	16	6	22
29	10	10	b11	28	389	518	266	305	43	16	6	24
30	10	10	12	29	-	451	254	305	40	14	6	21
31	10	-	16	29	-	484	-	292	-	14	6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	280	13	7	9.0	0.110	0.13	555
November	275	11	7	9.2	.112	.12	545
December	564	56	10	18.2	.222	.26	1,120
Calendar year 1939	23,248.0	389	6.2	63.7	.778	10.55	46,110
January	1,472	120	25	47.5	.580	.67	2,920
February	4,098	626	31	141	1.72	1.86	8,130
March	6,744	518	99	218	2.66	3.07	13,380
April	10,023	518	254	334	4.08	4.55	19,880
May	10,455	484	230	337	4.11	4.74	20,740
June	3,960	332	40	132	1.61	1.80	7,850
July	695	38	14	22.4	.274	.32	1,380
August	311	14	6	10.0	.122	.14	617
September	360	28	6	12.0	.147	.16	714
Water year 1939-40	39,237	626	6	107	1.31	17.82	77,830

a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed from engineer's reading Dec. 1f and on other days on basis of weather records and records for nearby streams.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geolog. al Survey

Crane Creek Reservoir near Midvale, Idaho

Location.- Staff gage, lat. 44°22', long. 116°37', at gate-control structure near left end of dam on Crane Creek, in SE¼ sec. 19, T. 12 N., R. 2 W., 10 miles southeast of Midvale.

Drainage area.- 242 square miles.

Records available.- November 1923 to September 1940.

Extremes.- Maximum gage height observed during year, 53.9 feet Mar. 1; minimum not determined.
1924-40: Maximum gage height, 56.3 feet Feb. 22, 1927; no usable contents Sept. 23, 1928, to Feb. 28, 1929, and Sept. 25 to Dec. 1, 1929.

Remarks.- Reservoir is formed by earth dam, completed in 1910 and raised during 1920-21. Capacity is reported to be about 60,000 acre-feet at gage height, 55.0 feet (crest of spillway). Water is used for irrigation of lands in the lower Weiser Valley. Gage read once daily.

Cooperation.- Gage-height record furnished by Crane Creek Reservoir Administration Board.

Gage height, in feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33.0	-	-	-	-	53.9	52.0	48.8	47.5	45.4	40.5	34.5
2	-	-	32.5	-	-	53.8	52.0	48.55	47.45	45.25	40.2	34.3
3	-	-	-	-	37.1	53.7	51.8	-	47.4	45.1	40.1	34.1
4	32.75	32.5	-	-	-	53.5	51.4	48.2	47.35	-	-	-
5	32.7	-	-	-	-	53.0	51.7	48.0	47.35	44.8	39.7	33.8
6	-	-	-	33.2	-	52.6	51.7	48.0	47.3	44.65	39.5	33.58
7	32.7	-	-	-	-	52.1	51.5	-	47.3	-	39.3	33.5
8	-	-	-	-	-	52.0	51.2	48.0	47.25	44.4	39.2	33.4
9	-	-	32.5	-	-	51.7	51.0	47.95	-	44.2	39.1	-
10	32.6	-	-	-	43.0	51.3	50.8	47.9	47.15	44.1	38.8e	33.2
11	-	32.5	-	-	-	50.9	50.4	-	47.1	43.89	-	-
12	-	-	-	-	-	50.4	-	47.9	47.0	43.7	38.4	33.0
13	-	-	32.6	35.6	-	49.9	49.3	47.8	46.95	43.6	38.25	33.0
14	32.55	-	-	-	45.3	49.2	-	47.8	46.9	43.4	38.0	32.9
15	-	-	-	-	-	49.0	48.6	47.75	46.92	43.3	-	32.85
16	-	-	32.5	-	-	48.9	48.6	47.75	-	43.2	37.5	32.75
17	-	-	-	-	46.0	48.95	48.6	47.75	46.8	43.0	37.3	32.7
18	-	32.5	-	-	-	48.95	48.6	47.7	-	42.8	-	32.7
19	-	-	-	-	-	48.95	48.6	47.72	46.8	-	36.9	32.7
20	-	-	-	35.8	46.3	48.95	-	47.7	46.75	42.6	36.75	32.65
21	32.55	-	-	-	-	48.95	48.7	-	46.7	42.4	36.5	32.6
22	-	-	-	-	-	48.9	48.75	47.7	46.7	42.2	36.35	-
23	-	-	32.6	-	-	48.9	48.8	47.7	46.6	42.1	36.2	32.6
24	-	-	-	-	46.8	-	-	47.7	46.5	42.0	36.05	32.6
25	-	32.5	-	-	48.0	49.0	-	47.6	46.3	41.85	-	-
26	-	-	-	35.9	49.0	49.1	-	47.6	46.2	41.7	35.6	-
27	-	-	-	-	51.0	50.0	48.85	47.6	46.0	41.6	35.4	-
28	32.5	-	-	-	53.0	50.1	-	47.55	45.8	41.3	35.2	32.6
29	-	-	-	-	53.8	50.0	-	47.55	45.7	41.1	35.0	-
30	-	-	32.9	-	-	50.3	49.0	47.5	-	40.9	34.85	-
31	32.51	-	-	-	-	51.5	-	47.5	-	-	-	-

9-238 September 1937

~~UNITED STATES DEPARTMENT OF THE INTERIOR~~
Geological Survey

21176 O U.S GOVERNMENT PRINTING OFFICE 1937

Crane Creek near Midvale, Idaho

Location.- Water-stage recorder and concrete control, lat. 44°22'00", long. 116°37'30", in SE¼ sec. 19, T. 12 N., R. 2 W., 400 feet downstream from Crane Creek Dam and 10 miles southeast of Midvale.

Drainage area.- 242 square miles.

Records available.- October 1910 to April 1916, May 1924 to September 1940.

Average discharge.- 19 years (1912-15, 1924-40), 66.0 second-feet.

Extremes.- Maximum discharge during year, 913 second-feet Mar. 5 (gage height, 3.44 feet); practically no flow at times.
1910-16, 1924-40: Maximum discharge observed, 4,240 second-feet, Dec. 3, 1910 (gage height, 8.9 feet), from rating curve extended above 3,500 second-feet; practically no flow at times in each year when gates in dam were closed.

Remarks.- Records good. Flow regulated by Crane Creek Reservoir (see p. 192). No large diversions above station.

Cooperation.- Gage-height record furnished by Crane Creek Reservoir Administration Board.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32				0	884	801	228	17	153	158	124
2	40				0	884	842	230	30	152	156	122
3	40				0	884	835	230	30	144	156	121
4	40				0	884	835	230	30	137	154	120
5	40				0	898	835	182	30	137	137	118
6	26				0	898	842	59	30	137	121	101
7	0				0	898	835	41	30	137	121	71
8	0				0	898	835	41	30	140	124	70
9	0				0	898	835	41	30	161	152	68
10	0				0	898	828	31	29	156	168	57
11	0				0	898	828	12	25	153	168	47
12	0				0	891	821	10	19	144	168	48
13	0				0	884	617	5	20	127	166	48
14	0				0	673	489	5	20	134	166	48
15	0				0	315	272	5	20	134	166	46
16	0				0	158	86	5	20	134	166	30
17	0				0	95	45	5	20	131	158	11
18	0				0	95	45	5	20	110	148	11
19	0				0	95	21	5	20	109	147	13
20	0				0	94	0	5	20	110	137	14
21	0				0	94	0	5	27	109	126	15
22	0				0	69	0	5	40	112	125	15
23	0				0	51	0	6	56	137	125	15
24	0				0	51	0	9	136	143	125	6
25	0				84	51	0	16	136	150	125	0
26	0				366	94	0	17	138	154	125	0
27	0				712	323	0	17	153	186	124	0
28	0				877	436	0	17	166	195	124	0
29	0				884	449	0	17	154	184	125	0
30	0				-	512	133	17	153	159	124	0
31	0				-	670	-	8	-	159	124	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	218	40	0	7.0	432
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1939	20,397	814	0	55.9	40,470
January	0	0	0	0	0
February	2,923	884	0	101	5,800
March	15,922	898	51	514	31,580
April	11,680	842	0	389	23,170
May	1,509	230	5	48.7	2,990
June	1,649	166	17	55.0	3,270
July	4,428	195	109	143	8,780
August	4,409	168	121	142	8,750
September	1,339	124	0	44.6	2,660
Water year 1939-40	44,077	898	0	120	87,430

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Crane Creek at mouth, near Weiser, Idaho

Location.- Water-stage recorder and concrete control, lat. 44°18', long. 116°47', in sec. 14, T. 11 N., R. 4 W., just downstream from steel highway bridge at Harris Ranch, a quarter of a mile upstream from mouth, and 10 miles northeast of Weiser.
Drainage area.- 288 square miles.
Records available.- July 1920 to September 1940.
Average discharge.- 19 years (1921-40), 70.9 second-feet.
Extremes.- Maximum discharge during year, 1,700 second-feet Feb. 27 (gage height, 6.28 feet), from rating curve extended above 1,300 second-feet; minimum, 1 second-foot May 21-24.
1920-40: Maximum discharge, 2,350 second-feet about Feb. 7, 1925 (gage height, 6.80 feet, from well-defined marks on gage) from rating curve extended above 1,000 second-feet; minimum, 0.2 second-foot May 26, 1931; minimum gage height, 1.30 feet Jan. 21, 1922.
Remarks.- Records good except those for periods of no gage-height record, which are fair. Flow regulated by Crane Creek Reservoir (see p. 192). Several small ditches divert above station for irrigation.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

1.6	0.6	2.6	51.5	3.8	228	5.0	710
1.8	3.8	2.9	81.5	4.1	310	5.4	970
2.0	11.3	3.2	118	4.4	418	5.8	1,270
2.3	28	3.5	165	4.7	550	6.1	1,520

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	3	4	6	a10	1,000	1,000	228	a6	a145	a145	115
2	36	3	4	7	a15	1,040	970	230	h17	a145	a145	114
3	34	3	4	24	a30	970	970	230	a28	a140	a145	113
4	34	3	4	24	a60	970	970	230	a28	a135	145	115
5	34	3	4	19	47	970	1,110	216	a28	a135	135	114
6	34	3	4	8	458	970	1,000	78	a28	a135	115	108
7	14	3	4	7	88	970	970	52	a28	h135	114	68
8	4	3	4	7	44	1,040	970	49	a28	a135	113	66
9	4	3	3	12	45	970	1,000	48	h28	a135	135	65
10	3	3	4	82	267	970	935	47	a28	135	156	64
11	3	3	4	a30	73	970	935	a20	a25	135	156	50
12	3	3	4	a7	39	935	935	h18	a20	135	160	47
13	3	a3	4	a7	23	935	770	a10	a16	113	160	50
14	3	3	4	7	31	798	575	a5	16	121	160	48
15	3	3	4	6	25	382	382	a2	17	121	160	46
16	3	4	4	6	21	191	124	a2	16	121	160	46
17	3	4	4	6	26	95	57	a2	14	119	a151	22
18	3	4	4	5	33	91	54	2	13	98	134	15
19	3	4	4	4	26	91	51	2	14	92	135	14
20	3	3	4	4	23	90	a30	2	13	92	131	18
21	3	4	4	4	19	90	h14	1	a25	92	118	18
22	3	4	4	4	18	76	a13	1	a30	94	117	18
23	3	3	4	4	16	52	a12	1	a36	117	117	19
24	3	4	4	4	15	50	a11	1	96	124	115	19
25	3	4	3	4	119	53	a10	2	a120	a130	115	12
26	3	4	3	5	914	210	a9	3	a120	a135	115	7
27	3	4	3	7	1,390	372	a8	4	a130	a160	114	5
28	3	4	3	10	1,270	505	h7	5	a150	184	113	5
29	3	4	3	a9	1,040	600	a7	5	a145	a175	114	5
30	3	4	4	a8	-	868	a80	6	h145	a150	115	6
31	3	-	4	a7	-	1,000	-	6	-	a150	115	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	282	36	3	9.1	559
November	103	4	3	3.4	204
December	118	4	3	3.8	234
Calendar year 1939	22,017	1,100	1	60.3	43,670
January	344	82	4	11.1	682
February	6,205	1,390	10	214	12,310
March	18,324	1,040	50	591	36,350
April	13,979	1,110	7	466	27,730
May	1,508	230	1	48.6	2,990
June	1,408	150	6	46.9	2,790
July	4,033	184	92	130	8,000
August	4,123	160	113	133	8,180
September	1,412	115	5	47.1	2,800
Water year 1939-40	51,839	1,390	1	142	102,800

a No gage-height record; discharge interpolated or computed on basis of recorded range of stage, weather records, and records for station near Midvale and for nearby streams.
h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Weiser Irrigation District canal near Weiser, Idaho

Location.- Water-stage recorder, lat. 44°15', long. 116°51', in sec. 32, T. 11 N., R. 4 W., 3¼ miles downstream from headworks of canal and 7 miles east of Weiser.

Records available.- April 1920 to September 1940.

Extremes.- Maximum discharge recorded during year, 202 second-feet June 19 (gage height, 3.12 feet); minimum discharge not determined, consists of leakage through closed canal gates during nonirrigation season.

1920-40: Maximum discharge recorded, 221 second-feet July 15, 1932; maximum gage height recorded, 3.43 feet May 5, 1926; minimum discharge not determined, consists of leakage through closed canal gates during nonirrigation season.

Remarks.- Records good. One farm lateral diverts a quarter of a mile above station. Canal diverts water from Weiser River in sec. 35, T. 11 N., R. 4 W., 3¼ miles above station for irrigation of about 7,000 acres included in projects of Weiser and Weiser Bench irrigation districts near Weiser.

Cooperation.- Gage-height record furnished by Weiser Irrigation District.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	76	-		-	-	-	119	193	166	165	140
2	57	76	-		-	1.0	-	134	193	156	175	128
3	65	76	-		-	1.1	-	146	189	189	176	126
4	71	77	-		-	1.6	-	161	188	178	176	132
5	82	78	-		-	1.6	-	165	188	174	168	137
6	-	77	-		-	1.4	-	168	188	172	142	134
7	-	78	-		3.5	1.4	-	179	187	170	137	113
8	-	-	-		3.2	1.6	-	186	187	156	139	104
9	-	-	-		2.6	1.4	1.0	190	189	179	142	110
10	-	-	-		3.2	-		193	188	190	165	112
11	-	-	-		3.5	-		192	188	192	163	103
12	-	-	-		2.9	-		189	190	190	166	99
13	-	-	-		2.6	-	a1.0	190	190	160	171	102
14	-	-	4.4		2.6	-		188	190	158	165	107
15	-	-	4.4		-	-		188	193	147	165	108
16	-	-	4.7		-	1.1		188	193	150	166	107
17	-	-	5.0		-	1.1		191	194	151	169	102
18	-	-	5.0		-	1.0	1.0	192	200	134	168	90
19	-	-	5.5		-	1.0	1.0	193	202	125	167	80
20	-	-	5.5		-	1.0	1.1	195	198	120	167	80
21	-	-	5.0		-	1.0	1.1	196	195	119	154	80
22	-	-	-		-	1.0	1.1	195	184	119	144	78
23	-	-	-		-	1.0	1.1	195	157	126	140	76
24	-	-	-		-	1.0	1.1	196	185	148	142	75
25	-	-	-		-	1.0	1.2	197	199	143	148	75
26	-	-	-		-	1.1	34	195	189	143	146	74
27	-	-	-		-	-	89	195	188	162	149	75
28	-	-	-		-	-	93	196	188	176	144	76
29	-	-	-		-	-	98	198	176	179	139	75
30	-	-	-		-	-	107	197	172	172	139	75
31	-	-	-		-	-		195	-	168	139	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1- 5	319	82	44	63.8	633
November 1- 7	538	78	76	76.9	1,070
December 14-21	39.5	5.5	4.4	4.94	78
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February 7-14	24.1	3.5	2.6	3.01	48
March	-	-	-	-	-
April 9-30	438.7	107	-	19.9	870
May	5,702	198	119	184	11,310
June	5,661	202	157	189	11,230
July	4,929	192	112	159	9,780
August	4,836	176	137	156	9,590
September	2,973	140	74	99.1	5,900
Water year	-	-	-	-	-

a No gage-height record; discharge interpolated.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Mann Creek near Weiser, Idaho

Location.- Staff-gage, lat. 44°24', long. 116°54', in sec. 11, T. 12 N., R. 5 W., at Richards Ranch, 12 miles upstream from mouth and 11 miles northeast of Weiser.

Drainage area.- 56 square miles.

Records available.- March 1911 to September, 1913, July to November 1920, April 1937 to September 1940.

Extremes.- Maximum discharge during year, 1,540 second-feet Mar. 27 (gage height, 5.45 feet from high-water mark), from rating curve extended above slope-area determination at gage height 4.21 feet; minimum discharge observed, 0.2 second-foot Aug. 20-22 (gage height, 0.78 foot).
1911-13, 1920, 1937-40: Maximum discharge, that of Mar. 27, 1940; no flow Aug. 18 to Sept. 22, 1937, July 31 to Sept. 13, 1939.

Remarks.- Records good. Gage read twice daily. Diversions above station for irrigation.

Cooperation.- Results of fourteen discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	2.8	3.1	7.0	15	140	585	120	33	8.7	1.9	0.5
2	1.2	2.8	3.1	17	14	179	391	118	24	7.9	1.9	.5
3	1.6	2.8	3.5	34	14	112	312	131	22	7.9	1.7	.5
4	1.6	2.4	3.1	23	30	100	256	122	21	7.9	1.5	2.3
5	2.6	2.4	3.1	14	24	87	256	117	20	7.5	1.3	4.3
6	3.5	2.8	3.1	9.2	a175	81	217	106	19	7.2	1.2	2.5
7	2.4	2.8	3.1	10	60	80	242	103	19	5.7	1.2	2.0
8	1.7	2.8	3.5	11	34	130	182	101	20	4.8	1.0	2.7
9	1.6	2.8	4.5	12	30	107	230	104	16	4.8	1.0	2.0
10	1.7	2.8	8.6	13	60	97	193	110	16	4.8	.8	2.0
11	1.7	2.8	5.0	11	39	81	193	122	16	4.8	.7	1.7
12	1.6	2.8	4.2	12	27	76	193	115	16	4.5	.7	1.6
13	1.5	2.8	4.0	11	25	73	205	106	14	4.3	.7	2.5
14	1.5	2.8	3.5	b10	24	77	256	96	14	3.8	.6	4.1
15	1.7	3.0	*4.5	b9.0	22	81	230	80	14	3.4	.7	2.5
16	1.6	3.0	5.5	b8.0	19	89	205	62	14	3.4	.6	3.6
17	1.6	2.6	5.5	10	21	97	193	64	14	3.4	.7	3.6
18	1.6	2.6	4.5	8.2	20	105	193	52	12	3.4	.6	4.1
19	1.9	2.4	4.0	b10	18	110	193	48	12	3.2	.4	4.8
20	1.9	2.8	4.0	b8.0	19	126	205	45	12	3.2	.2	4.1
21	1.9	2.6	4.0	b7.0	21	136	182	42	11	2.3	.2	4.8
22	1.9	3.0	3.3	7.3	19	146	163	40	9.9	2.3	.2	4.5
23	1.9	3.0	3.1	*7.9	18	155	150	37	9.1	2.3	.4	3.4
24	2.1	3.0	2.1	4.2	18	157	135	33	9.1	2.0	.6	3.2
25	2.1	3.0	b2.0	7.6	25	605	154	32	8.3	2.0	.6	3.2
26	2.1	3.0	b2.5	9.2	90	963	148	27	7.5	2.2	.6	3.4
27	2.8	3.3	b3.0	8.6	813	1,100	142	28	7.5	3.0	.5	3.2
28	3.1	3.1	3.5	8.6	1,120	480	148	28	7.9	3.6	.5	5.7
29	3.1	3.0	3.8	9.2	303	460	135	26	7.9	2.2	.5	6.3
30	3.1	3.0	4.2	10	-	520	124	26	7.9	2.2	.5	8.7
31	2.8	-	5.0	13	-	675	-	25	-	2.0	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	62.3	3.5	0.9	2.01	124
November	84.8	3.3	2.4	2.83	168
December	119.9	8.6	2.0	3.87	238
Calendar year 1939	7,771.0	340	0	21.3	15,410
January	340.0	34	4.2	11.0	674
February	3,117	1,120	14	107	6,180
March	7,425	1,100	73	240	14,730
April	6,411	585	124	214	12,720
May	2,266	131	25	73.1	4,490
June	434.1	33	7.5	14.5	861
July	130.7	8.7	2.0	4.22	259
August	24.4	1.9	.2	.79	48
September	98.3	8.7	.5	3.28	195
Water year 1939-40	20,513.5	1,120	.2	56.0	40,690

*Winter discharge measurement made on this day.
a No gage-height record; discharge computed from probable stage noted by observer.
b Stage-discharge relation affected by ice.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Unity Reservoir near Unity, Oreg.

Reference mark, lat. 44°30', long. 118°11', in SW¼ sec. 21, T. 12 S., R. 37 E., at Unity Dam on Burnt River, just downstream from Job Creek, half a mile downstream from confluence of North, Middle, and South Forks of Burnt River, and 4½ miles north of Unity. Elevation of reference mark is 3,826.0 feet (revised) above mean sea level (datum of Bureau of Reclamation. Drainage area, 309 square miles. Records available, March 1938 to September 1940. Maximum contents observed during year, 25,220 acre-feet Mar. 31 to May 4 (elevation, 3,820.0 feet); minimum observed, 5,260 acre-feet Sept. 23-25 (elevation, 3,792.5 feet). Maximum contents observed during period 1938-40, 25,570 acre-feet (revised) May 5, 1939 (elevation, 3,820.35 feet); minimum observed, 2,710 acre-feet (revised) Oct. 5, 1938 (elevation, 3,787.0 feet).

Reservoir is formed by earth-fill dam, completed by Bureau of Reclamation in 1937; storage began Feb. 19, 1938. Capacity, 25,220 acre-feet between elevations 3,776.5 feet (bottom of outlet gates) and 3,820.0 feet (top of radial gates on spillway when closed). Dead storage, 600 acre-feet below elevation 3,776.5 feet. Records given herein represent usable contents. Water used for irrigation of lands in Burnt River irrigation district near Hereford and Bridgeport. Water-surface elevation measured or estimated once daily by employee of Burnt River Irrigation District. Capacity table (revised) based on surveys by Bureau of Reclamation.

Monthly elevation and contents, water year October 1939 to September, 1940

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	3,794.7	*6,445	-
Oct. 31	3,793.5	5,790	-655
Nov. 30	3,794.5	6,335	+545
Dec. 31	3,795.9	7,114	+779
Calendar year 1939	-	-	-1,478
Jan. 31	3,797.5	8,050	+936
Feb. 29	3,803.6	11,980	+3,930
Mar. 31	3,820.0	25,220	+13,240
Apr. 30	3,820.0	25,220	0
May 31	3,814.9	20,680	-4,540
June 30	3,809.0	15,910	-4,770
July 31	3,803.9	12,190	-3,720
Aug. 31	3,796.3	7,344	-4,846
Sept. 30	3,792.6	5,312	-2,032
Water year 1939-40	-	-	-1,133

*Revised.

Burnt River near Hereford, Oreg.

Location.- Water-stage recorder and concrete weir with steel crest, lat. 44°30', long. 118°11', in SE¼ sec. 21, T. 12 S., R. 37 E., at entrance to canyon, 1,250 feet downstream from Unity Dam, 0.7 mile downstream from South Fork of Burnt River, and 7 miles west of Hereford. Prior to Mar. 5, 1939, the control was a natural riffle.

Records available.- March 1915 to September 1916, October 1928 to September 1940 (incomplete prior to 1930).

Drainage area.- 309 square miles.

Extremes.- Maximum discharge during year, 452 second-feet Apr. 4 (gage height, 3.20 feet); no flow Feb. 5 to Mar. 3, Sept. 28-30.

1915-16, 1928-40: Maximum discharge, 1,510 second-feet Apr. 14, 1936 (gage height, 6.91 feet); minimum before construction of Unity Reservoir Dam, 1.6 second-feet Aug. 31, 1935 (gage height, 0.92 foot).

Revisions.- The maximum discharge for the water year 1939 has been revised to 454 second-feet Apr. 4 (gage height, 3.21 feet), superseding figure published in Water-Supply Paper 883.

Remarks.- Records good except those for period Oct. 1, 1938, to Mar. 5, 1939, and periods of no gage-height record, which are poor. Many small diversions above station for irrigation. Some regulation by reservoir on South Fork of Burnt River, 3 miles above mouth (capacity, about 700 acre-feet) and by Unity Reservoir (see p. 197).

Revisions.- Revised figures of discharge for the water year 1939, superseding those published in Water-Supply Paper 883, are given herein.

Discharge, in second-feet, 1938-40

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	8.4	6.0	5.6		0	69	81	87	51	90	62
2	19	8.4	6.0	5.6		0	72	81	52	47	81	62
3	a19	8.6	6.0	5.6		0	159	101	48	46	64	62
4	a19	8.6	6.0	5.6		0	242	108	43	46	57	63
5	a19	8.6	6.0	5.6		0	331	107	38	45	70	63
6	a14	8.6	5.8	5.6		10	280	106	35	45	78	63
7	a10	8.8	5.8	5.6		8	297	112	70	56	83	63
8	a10	8.8	5.8	5.6		7	337	128	88	64	100	62
9	a10	8.8	5.8	5.6		5	335	127	87	62	118	62
10	a10	8.8	5.8	5.8		3	317	191	85	162	122	61
11	a10	6.3	5.8	5.8		3	278	210	84	149	108	61
12	a10	5.0	5.8	5.8		3	280	208	83	112	96	61
13	a10	5.0	5.6	2.7		3	280	205	82	82	87	42
14	a9	5.0	5.6	0		3	280	199	82	79	75	28
15	a9	5.0	5.6	0		3	280	132	81	75	71	28
16	8.8	5.0	5.6	0		4	282	100	76	73	70	28
17	8.8	5.0	5.6	0		4	242	71	71	71	70	28
18	8.8	5.4	5.4	0		4	135	54	68	69	69	28
19	8.6	5.4	5.4	0		40	40	46	66	66	69	28
20	8.6	5.4	5.4	0		72	49	42	65	64	69	28
21	8.6	5.4	5.4	0		82	144	61	71	61	68	28
22	8.6	5.6	5.4	0		94	290	94	74	59	66	28
23	8.4	5.8	5.4	0		107	282	90	73	57	66	28
24	8.4	5.8	5.6	0		175	282	88	71	61	65	28
25	8.4	5.8	5.6	0		202	282	64	69	72	64	28
26	8.1	6.0	5.8	0		235	254	54	60	69	64	28
27	8.1	6.0	5.8	0		248	111	53	55	64	64	28
28	8.1	6.0	5.8	0		256	61	52	54	63	64	27
29	8.1	6.0	5.6	0		182	60	71	54	68	63	27
30	8.4	6.0	5.6	0		64	69	105	53	71	63	27
31	8.4	-	5.6	0		68	-	103	-	80	63	-

a No gage-height record; discharge computed on basis of weather records and records for Unity Reservoir.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

21176 O U S GOVERNMENT PRINTING OFFICE 1937

Discharge, in second-feet, of Burnt River near Hereford, Oreg , 1938-40--Continued

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	11	12	5.0	0.3	0	426	120	40	67	32	68
2	26	11	12	5.4	.3	0	432	80	37	63	32	68
3	26	11	12	5.4	.3	0.3	439	81	34	69	76	66
4	26	11	12	5.4	.3	.3	448	114	29	70	90	65
5	26	11	12	5.4	0	.3	448	131	81	63	89	65
6	26	11	12	5.0	0	.3	445	96	109	65	89	66
7	26	11	12	5.0	0	.6	443	94	106	64	88	65
8	27	11	12	5.0	0	.6	412	93	105	63	88	65
9	27	11	12	5.0	0	.6	155	88	103	61	87	64
10	27	11	12	5.0	0	.6		85	100	103	106	64
11	27	11	12	5.0	0	.6		83	94	90	118	46
12	27	11	12	4.6	0	.9		107	87	78	210	36
13	27	11	12	4.2	0	.9		158	84	74	250	36
14	27	11	12	4.2	0	1.2	a157	155	61	71	174	34
15	27	11	7.5	4.2	0	1.2		184	47	69	50	34
16	28	11	5.4	3.8	0	.9		199	46	63	49	35
17	28	11	5.4	3.8	0	1.2		196	43	57	49	35
18	18	11	5.4	3.8	0	1.8		192	60	53	48	32
19	9.5	11	5.4	3.8	0	2.1		135	79	47	48	20
20	10	11	5.0	3.8	0	2.1		101	78	42	46	17
21	10	11	5.0	3.8	0	2.4	163	100	126	59	53	16
22	10	11	5.0	3.8	0	2.7	133	72	93	69	66	12
23	10	11	5.0	3.8	0	3.0	133	103	70	58	78	5.0
24	10	12	5.0	3.8	0	3.0	133	118	71	50	129	3.0
25	10	12	5.0	3.8	0	46	a133	111	70	42	127	1.5
26	10	12	5.0	3.8	0	109	a133	107	69	50	113	.3
27	10	12	5.0	3.8	0	126	117	122	68	46	70	2.1
28	10	12	5.0	3.8	0	335	119	152	66	33	70	.9
29	10	12	5.0	3.8	0	363	117	145	64	40	70	0
30	11	12	5.0	3.4	-	388	120	83	62	41	70	0
31	11	-	5.0	1.8	-	417	-	46	-	34	69	-

a No gage-height record; discharge computed on basis of weather records and records for Unity Reservoir.

Monthly discharge, in second-feet, 1938-40

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1938	332.2	19	8.1	10.7	659
November	197.3	8.8	5.0	6.58	391
December	176.4	6.0	5.4	5.69	350
Calendar year 1938	31,863.4	705	.4	87.3	63,190
January 1939	70.5	5.8	0	2.27	140
February	0	0	0	0	0
March	1,885	256	0	60.8	3,740
April	6,420	337	40	214	12,730
May	3,244	210	42	105	6,430
June	2,025	88	35	67.5	4,020
July	2,189	162	45	70.6	4,340
August	2,357	122	57	76.0	4,680
September	1,260	63	27	42.0	2,500
Water year 1938-39	20,156.4	337	0	55.2	39,980
October 1939	604.5	28	9.5	19.5	1,200
November	337	12	11	11.2	668
December	257.1	12	5.0	8.29	510
Calendar year 1939	20,649.1	337	0	56.6	40,960
January 1940	132.2	5.4	1.8	4.26	262
February	1.2	.3	0	.04	2.4
March	1,811.6	417	0	58.4	3,590
April	6,676	448	117	223	13,240
May	3,651	199	46	118	7,240
June	2,182	126	29	72.7	4,330
July	1,851	103	33	59.7	3,670
August	2,734	250	32	88.2	5,420
September	1,021.8	68	0	34.1	2,030
Water year 1939-40	21,259.4	448	0	58.1	42,160

Powder River at Salisbury, Oreg.

Location.- Water-stage recorder, lat. 44°39', long. 117°52', in NE¼ sec. 36, T. 10 S., R. 39 E., 700 feet downstream from Salisbury siding of Sumpter Valley Railroad and Stices Gulch and 8½ miles south of Baker. Datum of gage is 3,633.84 feet above mean sea level.
Drainage area.- 230 square miles.
Records available.- December 1903 to August 1914 and October 1928 to September 1940, in reports of Geological Survey. January 1904 to July 1914 and June 1926 to September 1936, in reports of State engineer.
Average discharge.- 22 years (1904-13, 1926-28, 1929-40), 106 second-feet.
Extremes.- Maximum discharge during year, 665 second-feet Apr. 1 (gage height, 4.63 feet); minimum, 1.4 second-feet Aug. 31, Sept. 1, 2 (gage height, 1.05 feet).
1903-14, 1926-40: Maximum discharge, 1,820 second-feet Mar. 20, 1910 (gage height, 7.05 feet, site and datum then in use; no flow Aug. 31, 1909, Sept. 7, 1931.
Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation.

Rating tables, water year 1939-40, except for periods of ice effect, (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 10				Jan. 16 to Sept. 30							
1.1	2.3	1.6	34	1.0	0.4	1.5	25	2.5	175	4.0	508
1.2	5.9	1.8	60	1.1	2.3	1.8	58	3.0	276	4.5	632
1.4	17			1.3	11.1	2.1	103	3.5	389		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	8.4	8.9	38	27	220	612	208	236	34	12	1.9
2	3.4	8.4	7.9	45	31	242	501	194	240	33	11	1.7
3	4.1	7.9	7.9	57	36	186	429	220	200	27	11	2.3
4	4.5	7.4	7.9	49	32	158	443	255	171	19	10	8.1
5	5.5	5.5	10	42	32	147	380	266	143	23	9.1	7.6
6	5.5	6.4	9.4	36	52	131	316	251	131	16	8.1	4.6
7	5.2	6.9	9.4	54	51	138	309	212	120	13	7.1	4.6
8	e4.4	6.4	11	49	48	184	316	192	118	13	6.1	6.1
9	6.4	5.5	14	33	51	166	329	210	101	12	5.7	6.1
10	6.4	5.5	17	31	54	156	313	316	90	12	5.3	6.6
11	5.2	6.4	19	b29	52	142	298	431	81	12	5.3	5.7
12	4.5	6.4	18	b27	58	120	294	506	74	12	5.0	5.3
13	3.4	5.9	17	b27	50	113	338	479	59	12	4.2	8.1
14	3.7	5.9	16	b29	47	112	455	419	53	12	4.2	9.6
15	4.1	6.4	21	b32	53	120	477	391	54	12	4.6	7.6
16	4.5	9.9	23	36	44	145	407	364	52	12	6.6	9.1
17	4.5	12	21	40	46	167	341	341	48	12	6.1	9.6
18	4.5	13	18	39	46	175	327	327	46	14	5.3	11
19	4.5	10	18	36	48	188	348	325	58	12	5.3	8.6
20	4.1	12	20	29	53	206	373	336	57	12	5.3	7.1
21	3.4	13	16	31	47	230	354	313	59	12	5.0	9.1
22	3.7	7.4	15	29	45	253	322	300	56	11	5.0	9.1
23	3.7	12	16	31	54	270	309	302	53	11	4.2	9.6
24	4.5	15	17	27	45	298	298	318	51	11	2.3	10
25	5.2	8.9	b15	25	50	472	283	354	51	11	2.1	10
26	5.5	8.4	b14	b26	87	a560	276	320	47	12	2.7	10
27	6.9	8.9	b14	*b27	129	630	261	272	40	12	3.4	10
28	7.4	15	15	26	198	544	255	244	35	14	2.7	13
29	6.9	21	16	23	251	513	249	234	34	15	3.4	13
30	6.9	8.9	23	25	-	484	228	238	32	17	3.1	13
31	7.9	-	30	23	-	544	-	234	-	16	1.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	157.8	8.4	3.4	5.09	313
November	274.7	21	5.5	9.16	545
December	485.4	30	7.9	15.7	963
Calendar year 1939	26,498.6	645	.3	72.6	52,550
January	1,051	57	23	33.9	2,080
February	1,817	251	27	62.7	3,600
March	8,014	630	112	259	15,900
April	10,441	612	228	348	20,710
May	9,372	506	192	302	18,590
June	2,590	240	32	86.3	5,140
July	466	34	11	15.0	924
August	172.9	12	1.7	5.58	343
September	238.1	13	1.7	7.94	472
Water year 1939-40	35,079.9	630	1.7	95.8	69,580

Peak discharge.- Feb. 28 (10:30 p.m.) 268 sec.-ft.; Apr. 1 (3 a.m.) 665 sec.-ft.
*Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station near Robinette.
b Stage-discharge relation affected by ice.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Powder River near Robinette, Oreg.

Location.- Staff gage, lat. 44°46', long. 117°04', in SE¼ sec. 22, T. 9 S., R. 46 E., downstream from all tributaries, 2 miles northwest of Robinette and 2½ miles upstream from mouth.

Drainage area.- 1,710 square miles.

Records available.- September 1928 to September 1940.

Average discharge.- 12 years, 392 second-feet.

Extremes.- Maximum discharge observed during year, 3,120 second-feet Mar. 31 (gage height, 5.20 feet); minimum observed, 42 second-feet Aug. 29 (gage height, 0.55 foot).
1928-40: Maximum discharge observed, 4,180 second-feet June 15, 16, 1933 (gage height, 6.9 feet, site and datum then in use); minimum observed, 18 second-feet Sept. 2-10, 1930.

Remarks.- Records fair. Many diversions above station for irrigation; none below. Gage read twice daily.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

0.5	36	1.4	235	2.6	810	4.0	1,900
.8	81	1.8	390	3.0	1,070	4.5	2,400
1.1	147	2.2	580	3.5	1,450	5.0	2,900

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	108	105	188	191	902	2,750	756	1,250	326	110	54
2	50	108	103	222	183	852	2,400	792	1,280	306	103	54
3	47	110	93	426	191	810	2,050	922	1,180	286	91	54
4	48	114	93	362	213	720	1,850	902	1,120	260	74	70
5	77	119	93	294	252	608	1,760	774	1,100	246	67	147
6	83	114	93	260	720	540	1,660	696	1,000	238	70	145
7	79	114	91	252	635	515	1,620	662	935	216	56	135
8	77	116	97	225	458	690	1,710	652	870	197	57	119
9	58	110	147	232	366	750	1,680	822	750	188	65	116
10	58	110	318	232	242	696	1,730	1,090	780	180	57	101
11	81	112	203	200	286	662	1,590	1,430	840	163	54	99
12	77	110	166	183	278	608	1,490	1,410	968	147	60	95
13	83	110	158	142	286	555	1,530	1,210	1,040	121	57	110
14	79	105	145	158	274	525	1,800	1,220	1,180	110	57	155
15	77	110	135	145	260	520	1,750	1,130	935	114	56	158
16	58	105	133	140	266	515	1,660	1,070	935	121	51	326
17	58	105	130	145	296	525	1,590	1,010	883	130	54	662
18	57	105	137	140	252	525	1,490	1,070	702	150	58	624
19	62	101	133	142	263	535	1,580	1,140	714	150	58	358
20	58	105	128	147	249	555	1,760	1,250	690	142	57	256
21	58	101	128	145	225	635	1,580	1,140	646	121	52	249
22	65	101	128	135	238	690	1,500	1,290	613	114	60	242
23	72	97	116	123	238	750	1,430	1,410	500	110	60	219
24	67	97	112	121	229	810	1,130	1,450	480	99	57	191
25	68	97	108	119	252	1,000	1,060	1,330	412	110	54	171
26	81	105	116	152	702	1,450	1,010	1,280	378	133	54	177
27	101	105	121	180	1,220	2,200	974	1,100	358	155	54	188
28	114	101	116	191	1,660	1,850	902	1,090	342	147	56	213
29	114	105	116	171	1,290	1,620	846	1,040	322	121	43	213
30	116	103	152	180	-	1,710	810	1,100	314	112	47	225
31	112	-	166	183	-	2,550	-	1,170	-	116	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,282	116	47	73.6	4,530
November	3,203	119	97	107	6,350
December	4,080	318	91	132	8,090
Calendar year 1939	133,064	2,200	26	365	263,900
January	5,935	426	119	191	11,770
February	12,205	1,660	183	421	24,210
March	27,873	2,550	515	899	55,290
April	46,692	2,750	810	1,556	92,610
May	33,408	1,450	652	1,078	66,260
June	23,517	1,280	314	784	46,650
July	5,129	326	99	165	10,170
August	1,900	110	43	61.3	3,770
September	5,926	662	54	198	11,750
Water year 1939-40	172,150	2,750	43	470	341,400

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Imnaha River at Imnaha, Oreg.

Location.- Water-stage recorder, lat. 45°34', long. 116°51', in SW¼ sec. 16, T. 1 N., R. 48 E., at Imnaha, three-eighths of a mile downstream from Sheep Creek.

Drainage area.- 705 square miles.

Records available.- June 1928 to September 1940.

Average discharge.- 12 years, 395 second-feet.

Extremes.- Maximum discharge during year, 1,830 second-feet Mar. 27 (gage height, 4.09 feet); minimum, 50 second-feet Dec. 28 (gage height, 1.10 feet).
1928-40: Maximum discharge, 4,800 second-feet May 1, 1938 (gage height, 6.27 feet), from rating curve extended above 3,000 second-feet; minimum, 35 second-feet Jan. 26, 1936, Jan. 8, 1937.

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

Rating tables, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 31				Apr. 1 to Sept. 30			
1.2	65	2.8	720	1.2	66	2.8	690
1.4	102	3.2	985	1.4	102	3.2	950
1.7	186	3.6	1,320	1.7	182	3.6	1,270
2.0	395	4.0	1,730	2.0	293	4.0	1,700
2.4	495			2.4	475		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	92	86	129	134	819	1,640	831	1,170	412	149	77
2	84	92	86	197	137	690	1,370	901	1,220	376	141	75
3	96	92	86	305	157	588	1,130	1,140	1,070	366	136	74
4	90	92	86	275	167	522	980	1,160	1,020	353	130	100
5	104	86	84	250	160	480	1,020	1,050	972	344	125	147
6	132	92	84	215	176	425	965	936	915	322	130	114
7	107	94	84	164	204	390	950	887	894	293	125	100
8	98	92	90	193	193	382	929	880	774	281	116	94
9	94	90	176	193	180	354	1,000	972	714	265	114	92
10	92	86	275	183	190	346	965	1,160	750	257	111	96
11	92	90	190	143	190	328	922	1,460	845	246	109	94
12	90	88	146	132	170	296	915	1,550	965	231	104	92
13	90	88	124	109	176	279	1,080	1,290	1,160	223	100	111
14	88	88	116	137	180	275	1,550	1,180	1,050	216	98	118
15	88	86	121	132	170	266	1,590	1,120	950	213	94	104
16	88	84	140	148	148	284	1,270	1,080	908	216	98	111
17	86	86	173	154	167	305	1,110	1,050	880	234	94	136
18	86	86	160	140	160	323	1,120	1,010	866	223	90	144
19	84	86	140	102	151	346	1,130	1,020	852	216	88	164
20	82	86	137	114	129	386	1,640	1,090	887	196	82	147
21	82	86	132	121	119	440	1,380	1,080	780	189	80	149
22	82	86	124	124	160	490	1,250	1,220	657	176	82	130
23	82	86	116	124	134	534	1,240	1,450	596	167	82	120
24	90	84	109	114	140	605	1,160	1,580	558	158	82	114
25	90	84	72	98	154	762	1,100	1,490	608	152	84	109
26	88	84	75	140	197	1,060	1,110	1,300	657	158	90	107
27	88	86	96	143	359	1,600	1,060	1,120	596	209	86	104
28	88	86	116	126	676	1,200	1,040	1,010	525	185	86	123
29	92	84	140	119	1,080	978	972	988	435	167	84	133
30	92	84	146	119	-	950	894	1,050	420	158	80	185
31	90	-	134	126	-	1,250	-	1,060	-	158	77	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,807	132	72	90.5	5,570
November	2,626	94	84	87.5	5,210
December	3,844	275	72	124	7,620
Calendar year 1939	113,778	1,370	72	312	225,700
January	4,769	305	98	154	9,460
February	6,358	1,080	119	219	12,610
March	17,953	1,600	266	579	35,610
April	34,382	1,640	894	1,146	68,200
May	35,115	1,580	831	1,133	69,650
June	24,694	1,220	420	823	48,980
July	7,360	412	152	237	14,600
August	3,147	149	77	102	6,240
September	3,464	185	74	115	6,870
Water year 1939-40	14,519	1,640	72	400	290,600

Peak discharge.- Mar. 27 (6 a.m.) 1,830 sec.-ft.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Salmon River below Valley Creek, at Stanley, Idaho

Location.- Water-stage recorder, lat. 44°14', long. 114°55', in SE¼SE¼ sec. 34, T. 11 N., R. 13 E., three-quarters of a mile downstream from Valley Creek and 1¼ miles northeast of Stanley. Datum of gage is 6,190.32 feet mean sea level (general adjustment of 1929).

Drainage area.- 535 square miles.

Records available.- July 1925 to September 1940.

Average discharge.- 15 years, 561 second-feet.

Extremes.- Maximum discharge during year, 2,390 second-feet May 26 (gage height, 2.80 feet); minimum, 196 second-feet Jan. 19 (gage height, 0.69 foot).
1925-40: Maximum discharge, 5,020 second-feet June 27, 1927 (gage height, 4.41 feet), from rating curve extended above 4,000 second-feet; minimum, 100 second-feet (estimated) Nov. 20-30, 1929.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	241	282	267	302	237	a290	573	a850	2,320	847	307	233
2	277	277	267	324	241	a290	525	a900	2,240	857	302	249
3	277	282	267	312	254	a280	487	al,200	2,160	798	292	277
4	267	277	258	302	254	a270	472	hl,140	2,090	779	287	307
5	282	262	254	292	254	a280	480	1,080	2,090	722	287	292
6	318	262	282	a260	262	a260	465	1,050	1,800	676	287	277
7	297	287	267	a240	258	h272	458	1,050	1,660	632	287	272
8	287	277	277	a280	258	a300	472	1,080	1,570	598	282	287
9	282	262	370	a290	258	a280	509	1,140	1,430	565	277	287
10	277	254	390	a280	267	a290	465	1,320	1,350	541	272	297
11	272	267	347	b250	267	a280	480	1,580	1,340	517	267	282
12	272	267	292	b230	258	a250	533	1,880	1,430	502	267	287
13	272	267	302	249	245	a250	632	2,020	1,580	487	258	324
14	272	262	312	277	267	h262	760	2,020	1,730	465	254	324
15	272	258	318	258	272	a262	779	2,020	1,730	465	254	307
16	272	258	410	282	228	262	722	1,950	1,700	443	254	312
17	267	254	416	272	a270	262	741	1,880	1,680	436	249	324
18	267	254	335	249	a270	258	838	1,810	1,650	416	249	329
19	267	258	312	220	a250	258	918	1,810	1,650	403	245	347
20	267	262	335	254	a240	262	1,020	1,880	1,650	383	239	370
21	272	262	324	245	a240	262	938	1,880	1,570	370	237	358
22	272	267	318	254	a260	262	938	1,880	1,430	353	241	364
23	272	267	302	258	h267	267	990	2,020	1,290	347	241	353
24	272	258	297	249	a270	272	980	2,160	1,180	341	245	341
25	282	254	245	249	a270	292	980	2,240	1,100	335	254	353
26	277	267	277	258	a270	347	1,120	2,320	1,040	347	249	353
27	272	267	287	258	a280	429	1,200	2,320	990	353	245	364
28	292	267	262	254	a290	377	1,030	2,240	949	329	241	410
29	287	262	287	249	h302	364	990	2,090	857	318	237	423
30	282	258	287	*237	-	429	a900	2,160	818	312	257	410
31	282	-	292	237	-	615	-	2,240	-	307	237	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	8,567	318	241	276	0.516	0.59	16,990
November	7,958	287	254	265	.495	.55	15,780
December	9,456	416	245	305	.570	.66	18,760
Calendar year 1939	159,900	1,560	202	438	.819	11.11	317,200
January	8,171	324	220	264	.493	.57	16,210
February	7,559	302	228	261	.488	.53	14,990
March	9,354	615	250	301	.563	.65	18,510
April	22,395	1,200	458	746	1.39	1.55	44,420
May	53,210	2,320	850	1,716	3.21	3.70	105,500
June	46,074	2,320	818	1,536	2.87	3.20	91,390
July	15,244	857	307	492	.920	1.06	30,240
August	8,080	307	237	261	.488	.56	16,030
September	9,713	423	233	324	.606	.68	19,270
Water year 1939-40	205,761	2,320	220	562	1.05	14.30	408,100

*Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station near Clayton.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Salmon River below Yankee Fork, near Clayton, Idaho

Location.- Water-stage recorder, lat. 44°16', long. 114°44', in sec. 20, T. 11 N., R. 15 E., a quarter of a mile downstream from Sunbeam Dam and Yankee Fork and 18 miles upstream from Clayton.

Drainage area.- 841 square miles.

Records available.- October 1921 to September 1940.

Average discharge.- 17 years (1922-24, 1925-40), 826 second-feet.

Extremes.- Maximum discharge during year, 3,770 second-feet May 25 (gage height, 6.71 feet); minimum recorded, 252 second-feet Jan. 19 (gage height, 1.84 feet).
1921-40: Maximum discharge, 8,000 second-feet (estimated) June 27, 1927; minimum, 160 second-feet (estimated) Nov. 25-30, 1929.

Remarks.- Records good. No diversions above station for irrigation except those above Stanley.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	325	354	342	a400	313	380	832	1,200	3,370	1,100	435	321
2	363	346	342	a400	313	385	748	1,370	3,270	1,140	426	342
3	367	350	334	a390	329	367	a720	1,760	3,170	1,010	421	389
4	354	346	321	a380	334	354	a700	1,840	2,980	1,010	412	454
5	367	305	301	358	329	372	a700	1,680	2,890	950	407	421
6	421	329	350	321	338	338	a690	1,580	2,530	890	407	385
7	398	372	325	294	346	367	a680	1,580	2,360	832	407	376
8	376	350	342	350	338	403	a690	1,680	2,200	792	403	398
9	367	309	430	367	338	372	716	1,880	2,040	754	389	394
10	363	297	507	363	354	385	673	2,280	1,920	721	376	430
11	358	342	444	a330	346	363	699	2,800	1,920	699	376	403
12	358	334	354	a290	321	329	803	3,470	2,040	684	372	394
13	354	338	354	309	313	334	1,040	3,570	2,200	652	363	478
14	354	329	389	350	354	350	1,340	3,470	2,280	632	358	468
15	354	313	385	321	350	346	1,370	3,470	2,280	616	354	435
16	350	301	463	350	305	358	1,170	3,270	2,200	606	354	444
17	346	294	512	350	346	354	1,170	3,170	2,160	601	350	458
18	342	297	398	321	342	334	1,340	3,070	2,080	576	346	454
19	338	313	354	282	321	338	1,510	3,070	2,040	561	342	478
20	338	325	398	329	301	354	1,650	3,170	2,040	541	334	507
21	338	321	389	317	301	358	1,480	3,170	1,920	521	334	487
22	342	334	380	321	334	385	1,440	3,170	1,760	507	334	487
23	342	334	a360	329	338	426	1,540	3,270	1,620	492	334	473
24	346	321	a350	313	338	463	1,540	3,470	1,480	482	338	463
25	363	313	a300	317	342	536	1,510	3,670	1,370	473	358	473
26	354	334	a330	334	358	637	1,620	3,770	1,300	482	346	487
27	342	350	a350	329	372	743	1,680	3,670	1,240	526	338	487
28	367	342	a330	325	394	637	1,510	3,470	1,170	492	334	556
29	363	329	a360	325	407	586	1,400	3,270	1,070	468	329	581
30	350	321	a380	321	-	658	1,240	3,270	1,040	454	325	566
31	358	-	a390	309	-	950	-	3,270	-	444	321	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	11,058	421	325	357	0.424	0.49	21,930
November	9,843	372	294	328	.390	.44	19,520
December	11,564	512	300	373	.444	.51	22,940
Calendar year 1939	236,055	2,620	272	647	.769	10.45	468,200
January	10,395	400	282	335	.398	.46	20,620
February	9,815	407	301	338	.402	.43	19,470
March	13,562	950	329	437	.520	.60	26,900
April	34,201	1,680	673	1,140	1.36	1.52	67,840
May	86,850	3,770	1,200	2,802	3.33	3.84	172,300
June	61,940	3,370	1,040	2,065	2.46	2.74	122,900
July	20,708	1,140	444	668	.794	.92	41,070
August	11,323	435	321	365	.434	.50	22,460
September	13,489	581	321	450	.535	.60	26,760
Water year 1939-40	294,748	3,770	282	805	.957	13.05	584,700

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Salmon River near Challis, Idaho

Location.- Water-stage recorder, lat. 44°23', long. 114°15', in sec. 7, T. 12 N., R. 19 E., 250 feet downstream from Bayhorse Creek and 9 miles south of Challis. Datum of gage is 5,163.99 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,740 square miles.

Records available.- October 1928 to September 1940.

Average discharge.- 12 years, 1,177 second-feet.

Extremes.- Maximum discharge during year, 5,580 second-feet May 26 (gage height, 6.16 feet); minimum, 231 second-feet Dec. 26 (gage height, 1.19 feet).
1928-40: Maximum discharge, 9,790 second-feet June 2, 1936 (gage height, 7.83 feet); minimum; that of Dec. 26, 1939.

Remarks.- Records good. Some diversion above station for irrigation.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

1.5	339	2.9	1,065	4.9	3,220
1.7	419	3.3	1,365	5.3	3,880
2.0	555	3.7	1,720	5.7	4,620
2.3	710	4.1	2,140	6.1	5,460
2.6	878	4.5	2,640		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	502	545	484	555	453	565	1,140	1,630	5,030	1,580	678	484
2	526	531	489	560	453	555	1,000	1,720	4,920	1,680	668	484
3	575	531	484	565	512	541	938	2,200	4,820	1,680	657	575
4	555	531	476	541	521	517	878	2,510	4,430	1,630	641	668
5	550	494	449	526	502	541	908	2,320	4,340	1,540	636	748
6	605	471	471	494	507	507	878	2,140	3,970	1,450	631	657
7	626	531	489	407	517	517	878	2,080	3,540	1,360	621	626
8	595	531	480	436	498	580	878	2,200	3,300	1,280	615	657
9	575	507	531	526	498	570	938	2,440	3,070	1,250	605	657
10	565	445	694	536	512	560	908	2,920	2,850	1,170	590	694
11	560	476	641	436	507	545	908	3,880	2,710	1,140	575	689
12	560	494	545	378	466	494	969	5,030	2,780	1,100	570	662
13	560	494	471	423	419	480	1,210	5,240	3,070	1,060	560	726
14	560	494	545	480	512	517	1,580	5,030	3,380	1,030	545	781
15	555	480	550	432	526	517	1,820	4,920	3,620	1,000	536	748
16	550	453	585	498	449	526	1,580	4,620	3,540	969	531	732
17	545	432	694	550	489	536	1,450	4,520	3,460	969	531	748
18	545	423	600	480	512	517	1,630	4,430	3,300	908	526	732
19	536	449	480	370	476	507	1,870	4,430	3,220	878	521	759
20	531	476	531	436	436	526	2,140	4,520	3,140	878	517	a850
21	531	480	555	445	411	545	2,030	4,520	3,000	849	512	a800
22	531	480	541	453	489	570	1,870	4,620	2,780	803	512	a800
23	526	494	498	471	507	610	1,980	4,820	2,510	775	498	a750
24	536	471	502	476	502	668	2,030	5,140	2,320	748	498	a750
25	550	458	386	462	512	726	2,030	5,460	2,140	737	526	a750
26	560	480	370	484	536	878	2,030	5,460	1,980	732	517	849
27	541	498	476	526	560	1,000	2,200	5,460	1,920	798	502	849
28	545	494	436	502	560	938	2,080	5,140	1,820	775	489	878
29	565	476	512	471	610	849	1,870	4,720	1,720	742	484	908
30	550	466	580	453	-	820	1,720	4,720	1,630	715	484	908
31	560	-	565	462	-	1,140	-	4,820	-	699	480	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	17,171	626	502	554	0.318	0.37	34,060
November	14,585	545	423	486	.279	.31	28,930
December	16,110	694	370	520	.299	.34	31,950
Calendar year 1939	348,411	3,430	370	955	.549	7.45	691,000
January	14,834	565	370	479	.275	.32	29,420
February	14,452	610	411	498	.286	.31	28,670
March	19,362	1,140	480	625	.359	.41	38,400
April	44,341	2,200	878	1,478	.849	.95	87,950
May	123,660	5,460	1,630	3,989	2.29	2.64	245,300
June	94,310	5,030	1,630	3,144	1.81	2.02	187,100
July	32,925	1,680	699	1,062	.610	.70	65,310
August	17,256	678	480	557	.320	.37	34,230
September	21,919	908	484	731	.420	.47	43,480
Water year 1939-40	430,925	5,460	370	1,177	.676	9.21	854,800

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Salmon River at Salmon, Idaho

Location.- Water-stage recorder, lat. 45°11', long. 113°54', in sec. 6, T. 21 N., R. 22 E., just upstream from Lemhi River, near Rose Ranch buildings, 1,000 feet downstream from island, and three-eighths of a mile downstream from highway bridge and Salmon.

Drainage area.- 3,600 square miles.

Records available.- April 1912 to September 1916, July 1919 to September 1940.

Average discharge.- 23 years (1913-16, 1920-40), 1,723 second-feet.

Extremes.- Maximum discharge during year, 5,850 second-feet May 27 (gage height, 5.25 feet); minimum, 601 second-feet Aug. 20 (gage height, 2.29 feet).
1912-16, 1919-40: Maximum discharge observed, 16,400 second-feet June 12, 1921 (gage height, 9.35 feet, staff gage at site 700 feet upstream); minimum, 242 second-feet Jan. 8, 1937 (gage height, 1.50 feet).

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	775	964	912	975	b850	1,160	1,570	1,960	a5,400	1,830	758	652
2	794	964	922	975	842	1,070	1,530	1,840	5,220	2,000	741	652
3	813	954	944	998	860	998	1,420	2,000	5,220	2,050	732	690
4	851	944	933	1,010	912	954	1,320	2,450	4,980	1,990	716	775
5	860	944	922	964	b950	912	1,280	2,630	4,850	1,970	690	860
6	870	912	891	944	b950	922	1,280	2,360	4,610	1,830	690	922
7	902	902	912	891	933	880	1,260	2,250	4,130	1,740	690	880
8	933	964	922	851	922	933	1,260	2,200	3,890	1,680	698	870
9	922	964	922	851	912	964	1,260	2,270	3,660	1,590	690	944
10	902	944	986	*922	922	954	1,320	2,630	3,340	1,490	675	986
11	902	880	1,130	912	922	922	1,270	3,440	3,020	1,410	668	1,020
12	902	912	1,080	794	912	902	1,270	4,490	3,120	1,260	652	1,020
13	891	944	975	690	860	842	1,380	5,350	3,230	1,190	652	1,280
14	880	954	902	758	750	832	1,640	5,480	3,550	1,140	645	1,350
15	902	954	986	784	860	860	1,990	5,220	3,780	1,090	638	1,240
16	912	933	986	766	902	870	2,100	5,100	3,660	1,070	630	1,230
17	902	902	1,040	851	822	820	1,860	4,980	3,550	1,040	630	1,190
18	902	891	1,140	975	832	870	1,830	4,850	3,440	1,030	630	1,190
19	922	902	1,020	822	912	851	2,040	4,730	3,340	998	630	1,190
20	922	912	922	h707	860	842	2,270	4,850	3,340	975	622	1,230
21	922	933	954	a750	784	860	2,450	4,850	3,230	933	630	1,230
22	922	944	1,010	a800	750	870	2,250	4,850	3,020	902	630	1,220
23	933	944	986	a800	822	902	2,200	4,850	2,720	870	638	1,190
24	933	944	944	a800	891	954	2,270	5,100	2,540	832	638	1,160
25	944	912	922	a800	870	1,010	2,270	5,480	2,360	822	652	1,140
26	964	912	804	h813	964	1,100	2,360	5,720	2,220	822	668	1,140
27	975	933	716	a900	1,160	1,280	2,540	5,720	2,080	842	668	1,190
28	954	944	832	*b950	1,260	1,410	2,450	5,600	2,000	891	652	1,420
29	954	944	851	b925	1,180	1,300	2,270	5,350	1,910	870	652	1,490
30	964	912	944	b900	-	1,220	2,130	5,100	1,810	842	652	1,530
31	954	-	1,030	b850	-	1,240	-	a5,200	-	794	652	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	28,078	975	775	906	55,690
November	27,962	964	880	932	55,460
December	29,440	1,140	716	950	58,390
Calendar year 1939	463,359	3,780	600	1,283	928,900
January	26,728	1,010	690	862	53,010
February	26,366	1,260	750	909	52,300
March	30,564	1,410	832	986	60,620
April	54,340	2,540	1,260	1,811	107,800
May	128,900	5,720	1,840	4,158	255,700
June	103,220	5,400	1,810	3,441	204,700
July	38,793	2,050	794	1,251	76,940
August	20,609	758	622	665	40,880
September	32,881	1,530	652	1,096	65,220
Water year 1939-40	547,881	5,720	622	1,497	1,087,000

*Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for station near Challis.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.

Salmon River at Whitebird, Idaho

Location.- Water-stage recorder, lat. 45°45', long. 116°20', in sec. 22, T. 28 N., R. 1 E., just upstream from Whitebird Creek, half a mile downstream from Canfield-Joseph highway bridge, and 1 mile southwest of Whitebird.

Drainage area.- 13,400 square miles.

Records available.- August 1910 to September 1917, October 1919 to September 1940.

Average discharge.- 28 years (1910-17, 1919-40), 10,190 second-feet.

Extremes.- Maximum discharge during year, 47,600 second-feet May 14 (gage height, 24.29 feet); minimum, 2,150 second-feet Jan. 21 (gage height, 11.00 feet).

1910-17, 1919-40: Maximum discharge observed, 88,800 second-feet June 9, 1921 (gage height, 31.2 feet), from rating curve extended above 75,000 second-feet; minimum discharge, 1,580 second-feet Dec. 11, 1932 (gage height, 10.23 feet), from rating curve extended below 2,200 second-feet.

Maximum stage known, about 37.5 feet, present datum, June 1894 (discharge, 120,000 second-feet).

Remarks.- Records excellent. Amount of water diverted above station for irrigation is negligible.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

11.0	2,150	13.0	5,060	19.0	21,880
11.5	2,680	14.0	7,040	21.2	31,440
12.0	3,360	15.5	10,540	24.2	47,080
12.5	4,170	17.0	14,790		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,800	3,590	3,210	4,170	3,280	7,460	16,100	15,700	37,400	8,350	3,920	2,620
2	2,930	3,510	3,210	4,430	3,140	6,830	15,400	15,400	36,900	8,350	3,750	2,620
3	3,000	3,510	3,280	4,970	2,930	6,420	13,600	18,500	34,400	8,580	3,590	2,620
4	3,140	3,440	3,280	4,970	3,070	5,820	11,900	21,900	32,400	8,350	3,590	2,800
5	3,280	3,360	3,210	4,700	3,360	5,440	11,100	23,100	31,000	8,350	3,440	3,440
6	3,830	3,280	3,140	4,340	3,670	5,060	10,500	21,500	29,600	8,120	3,440	3,920
7	4,080	3,210	3,070	3,920	4,080	4,880	10,000	20,000	27,300	7,460	3,360	3,670
8	3,830	3,440	3,210	3,670	4,080	4,880	9,780	19,600	25,600	7,040	3,280	3,440
9	3,750	3,440	3,440	3,510	4,000	5,060	10,000	21,100	23,500	6,830	3,280	3,360
10	3,590	3,360	4,260	3,590	4,000	5,060	10,300	25,600	21,900	6,620	3,280	3,360
11	3,510	3,210	4,880	3,750	4,080	4,880	10,000	33,900	21,100	6,220	3,140	3,510
12	3,510	3,210	4,880	3,590	4,080	4,700	10,000	42,700	21,500	6,020	3,140	3,510
13	3,440	3,210	4,520	3,140	3,920	4,430	10,800	46,500	22,300	5,820	3,070	3,670
14	3,440	3,210	4,000	2,860	3,670	4,170	13,000	46,000	21,900	5,440	3,000	4,520
15	3,360	3,280	3,750	2,930	3,510	4,170	16,400	42,700	21,100	5,250	2,930	5,060
16	3,360	3,210	3,920	3,210	3,590	4,260	17,800	43,200	20,000	5,060	2,930	4,790
17	3,360	3,070	4,700	3,070	3,510	4,430	16,400	40,000	18,900	5,060	2,860	4,700
18	3,360	2,930	5,250	3,440	3,510	4,700	15,400	38,900	17,800	5,250	2,860	4,790
19	3,280	2,800	4,880	3,140	3,590	4,700	15,700	38,900	16,700	5,060	2,860	4,610
20	3,210	2,860	4,340	2,560	3,510	4,790	18,100	40,500	16,100	5,060	2,800	4,610
21	3,280	2,930	4,000	2,340	3,510	4,880	20,000	40,500	15,100	4,880	2,740	4,790
22	3,280	3,070	3,920	2,340	3,280	5,060	18,900	40,500	14,200	4,700	2,680	4,880
23	3,210	3,210	3,830	2,680	3,140	5,440	17,800	41,600	13,000	4,520	2,680	4,880
24	3,280	3,280	3,670	2,800	3,140	6,020	17,400	43,700	12,200	4,340	2,680	4,430
25	3,280	3,210	3,440	2,930	3,360	7,040	17,100	46,000	11,300	4,170	2,680	4,260
26	3,360	3,070	3,210	3,000	3,750	8,810	17,100	46,000	10,800	4,080	2,740	4,170
27	3,440	3,070	2,860	2,860	4,610	11,900	17,400	44,300	10,000	4,260	2,800	4,170
28	3,510	3,280	2,740	3,070	5,630	12,700	18,100	41,600	9,530	4,430	2,800	4,340
29	3,590	3,440	2,800	3,210	7,040	11,300	17,800	38,900	9,050	4,430	2,740	5,060
30	3,670	3,280	2,860	3,440	-	10,800	16,700	38,400	8,580	4,260	2,680	6,220
31	3,590	-	3,510	3,440	-	13,000	-	37,900	-	4,080	2,620	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	105,550	4,080	2,800	3,405	209,400
November	96,970	3,590	2,800	3,232	192,300
December	115,270	5,250	2,740	3,718	228,600
Calendar year 1939	2,869,530	40,500	2,620	7,862	5,691,000
January	106,070	4,970	2,340	3,422	210,400
February	110,040	7,040	2,930	3,794	218,300
March	199,090	13,000	4,170	6,422	394,900
April	440,580	20,000	9,780	14,690	873,900
May	1,075,100	46,500	15,400	34,680	2,132,000
June	611,160	37,400	8,580	20,370	1,212,000
July	180,440	8,580	4,080	5,821	357,900
August	94,360	3,920	2,620	3,044	187,200
September	122,820	6,220	2,620	4,094	243,600
Water year 1939-40	3,257,450	46,500	2,340	8,900	6,460,000

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Valley Creek at Stanley, Idaho

Location.- Staff gage, lat. 44°13', long. 114°56', in sec. 3, T. 10 N., R. 13 E., a quarter of a mile upstream from mouth, three-eighths of a mile downstream from upper Stanley, and three-quarters of a mile upstream from lower Stanley.

Drainage area.- 176 square miles.

Records available.- December 1910 to October 1913, May 1921 to September 1940.

Average discharge.- 20 years (1911-13, 1922-40), 176 second-feet.

Extremes.- Maximum discharge observed during year, 710 second-feet May 25, 26; maximum gage height observed, 2.70 feet May 26; minimum discharge observed, 46 second-feet Nov. 5 (gage height, 0.88 foot).
1910-13, 1921-40: Maximum discharge observed, 1,850 second-feet May 29, 1921 (gage height, 4.4 feet), from rating curve extended above 1,300 second-feet; minimum, 40 second-feet (estimated) Nov. 17-30, 1929, Dec. 8-13, 1932.

Remarks.- Records fair. Gage read once daily May 6 to July 1, except June 2, 16, 23, 25, and twice to four times weekly during remainder of year. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	70	63	104	60	98	232	292	620	232	78	54
2	67	70	64	106	61	86	199	349	592	226	75	57
3	68	70	65	109	64	73	166	406	565	220	74	60
4	74	70	60	88	66	75	164	390	592	214	72	66
5	80	46	60	66	69	77	161	374	565	190	72	71
6	86	70	73	64	72	80	159	358	457	166	72	77
7	92	75	73	63	72	83	157	358	457	156	70	80
8	86	70	73	68	72	86	155	356	406	147	66	84
9	81	50	100	73	72	82	160	406	432	145	61	82
10	75	72	130	70	71	77	166	484	358	144	59	79
11	75	75	109	b60	70	75	199	565	356	142	58	77
12	75	75	80	*b55	65	73	232	680	382	130	56	95
13	75	75	65	60	60	70	262	680	432	117	63	113
14	75	75	65	65	65	70	292	650	457	116	60	102
15	74	75	75	75	75	70	278	620	457	115	56	90
16	74	72	110	75	70	72	265	592	444	111	56	91
17	73	70	125	75	70	73	252	592	432	107	55	92
18	74	*70	85	65	70	72	329	565	432	104	54	94
19	75	75	65	55	70	70	406	538	432	101	55	96
20	72	75	70	65	65	80	419	565	406	98	56	98
21	70	75	70	65	60	90	432	565	382	92	57	100
22	72	75	70	65	70	95	432	592	336	90	57	95
23	75	75	65	65	73	100	432	650	304	88	56	90
24	76	70	65	65	73	104	432	680	271	85	56	96
25	77	65	b50	65	73	109	432	710	262	83	65	102
26	74	65	60	70	73	135	432	710	252	90	62	103
27	72	64	63	70	77	161	407	680	232	96	58	104
28	71	63	64	65	81	158	383	620	214	88	57	106
29	71	63	66	b60	110	155	358	592	197	85	56	113
30	70	63	79	*b55	-	181	325	592	232	83	55	117
31	70	-	91	b60	-	206	-	620	-	81	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,315	92	66	74.7	0.424	0.49	4,590
November	2,078	75	46	69.3	.394	.44	4,120
December	2,353	130	50	75.9	.431	.50	4,670
Calendar year 1939	44,978	457	41	123	.699	9.53	89,210
January	2,166	109	55	69.9	.397	.46	4,300
February	2,049	110	60	70.7	.402	.45	4,060
March	3,036	206	70	97.9	.556	.64	6,020
April	8,718	432	155	291	1.65	1.84	17,290
May	16,833	710	292	543	3.09	3.56	33,390
June	11,958	620	197	399	2.27	2.53	23,720
July	3,942	232	81	127	.722	.83	7,820
August	1,901	78	54	61.3	.348	.40	3,770
September	2,686	117	54	89.5	.509	.57	5,330
Water year 1939-40	60,035	710	46	164	.932	12.71	119,100

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Yankee Fork of Salmon River near Clayton, Idaho

Location.- Water-stage recorder, lat. 44°17', long. 114°44', in sec. 17, T. 11 N., R. 15 E., half a mile upstream from mouth and 17 miles west of Clayton.

Drainage area.- 195 square miles.

Records available.- May 1921 to September 1940.

Average discharge.- 17 years (1922-24, 1925-40), 176 second-feet.

Extremes.- Maximum discharge during year, 1,510 second-feet May 12 (gage height, 5.18 feet); minimum discharge recorded, 15 second-feet Nov. 5 (gage height, 0.55 feet), but may have been less sometime during winter.
1921-40: Maximum discharge, 3,360 second-feet June 12, 1921 (gage height, 6.79 feet, site and datum then in use), from rating curve extended above 2,300 second-feet; minimum, 10 second-feet (estimated) Dec. 5, 6, 1927.

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

Rating tables, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31				Mar. 17 to Sept. 30					
0.8	27	1.1	42	1.0	36	2.3	205	4.3	905
.9	32	1.2	48	1.2	51	2.7	298	4.7	1,160
1.0	37	1.3	55	1.4	68	3.1	411	5.2	1,510
				1.7	102	3.5	542		
				2.0	148	3.9	705		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		47	41				109	286	935	211	74	58
2		46	41				104	361	905	211	75	62
3		47	38				101	524	825	189	74	69
4		47	36				100	518	750	191	72	81
5		34	36				100	442	660	172	71	71
6	a55	47	38				102	408	598	181	70	65
7		48	37				108	402	560	155	72	64
8		43	38			b45	112	442	514	146	72	67
9		36	41				116	542	468	141	69	66
10			46				113	775	445	133	67	72
11			42	(*)			130	1,090	461	122	67	68
12	50		36				177	1,430	497	113	67	65
13	49		b33				283	1,290	524	100	66	92
14	48		b30				396	1,160	518	96	65	77
15	48		b35	b35	b40		408	1,120	477	95	64	73
16	48		b40				308	995	448	96	63	77
17	48		44			*46	288	965	420	96	62	73
18	48	(*)	40			a45	355	905	396	91	61	73
19	47					38	423	965	375	89	60	74
20	47	b38				a45	445	995	352	89	60	75
21	48					a50	381	965	321	84	60	72
22	48					a55	364	965	296	82	62	70
23	47					b60	399	1,090	271	81	61	68
24	48					b70	414	1,220	251	80	63	66
25	50		b35			b80	414	1,290	235	78	64	68
26	48					b100	396	1,260	224	80	62	72
27	47					b110	384	1,190	213	88	61	71
28	50					102	361	1,020	203	83	60	81
29	48					96	332	905	191	80	59	85
30	47			(*)	-	99	301	878	187	77	58	85
31	48				-	115	-	905	-	76	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	1,567	-	-	50.5	0.259	0.30	3,110
November	1,193	48	-	39.8	.204	.23	2,370
December	1,147	46	-	37.0	.190	.22	2,280
Calendar year 1939	49,753	818	-	136	.697	9.51	98,700
January	1,085	-	-	35	.179	.21	2,150
February	1,160	-	-	40	.205	.22	2,300
March	1,831	115	-	59.1	.303	.35	3,630
April	8,024	445	100	267	1.37	1.53	15,920
May	27,303	1,430	286	881	4.52	5.21	54,150
June	13,520	935	187	451	2.31	2.58	26,820
July	3,586	211	76	116	.595	.69	7,110
August	2,019	75	58	65.1	.334	.39	4,000
September	2,160	92	58	72.0	.369	.41	4,280
Water year 1939-40	64,595	1,430	-	176	.903	12.34	128,100

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Pahsimeroi River near May, Idaho

Location.- Staff gage, lat. 44°42', long. 114°03', in W½ sec. 25, T. 16 N., R. 20 E., a quarter of a mile downstream from old highway bridge on Challis-Salmon River highway, a quarter of a mile upstream from Salmon River, and 10 miles northwest of May.

Records available.- October 1929 to September 1940.

Average discharge.- 10 years (1930-40), 175 second-feet.

Extremes.- Maximum discharge observed during year, 277 second-feet Feb. 27; maximum gage height observed, 2.78 feet Sept. 28; minimum discharge observed, 92 second-feet May 13, 18, 20.
1929-40: Maximum discharge observed, 279 second-feet Dec. 10-14, 16, 17, 1929; minimum observed, 75 second-feet Apr. 28, 1934.

Remarks.- Records fair. Gage read once daily. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	195	234	248	228	200	258	212	147	113	168	138	159
2	200	230	248	230	200	251	209	144	119	166	138	162
3	200	230	248	237	202	246	209	130	142	155	140	170
4	198	225	246	244	202	246	205	116	138	151	140	177
5	198	225	246	239	202	246	205	116	151	149	140	179
6	198	230	246	237	207	244	202	113	140	142	138	a181
7	198	230	248	234	207	244	198	113	142	140	138	a184
8	195	230	246	228	205	251	198	113	153	140	138	186
9	195	230	246	228	205	246	198	108	142	138	136	191
10	200	232	246	225	209	244	198	102	142	138	134	191
11	205	234	246	221	209	244	193	99	140	134	130	191
12	207	244	244	218	207	239	193	101	140	138	130	202
13	a208	241	244	218	207	237	191	92	140	134	132	218
14	a210	248	241	216	209	237	188	95	136	134	132	212
15	a211	244	241	214	215	237	175	94	130	130	a132	202
16	a212	241	244	214	214	239	175	94	128	123	132	214
17	a213	241	241	216	214	237	170	94	123	126	132	223
18	a215	241	241	216	214	234	170	92	123	128	130	230
19	a216	241	241	212	216	230	168	94	119	130	130	223
20	a217	241	241	209	216	230	164	92	117	130	132	218
21	a218	244	239	207	216	232	162	95	117	128	140	223
22	a220	246	241	205	216	230	164	101	117	130	136	218
23	221	246	241	202	218	228	164	101	117	126	138	214
24	a226	248	239	200	218	225	159	102	117	124	144	214
25	230	251	237	202	221	221	159	104	117	124	147	212
26	237	248	237	200	248	218	162	104	121	140	149	218
27	234	253	234	200	277	218	157	102	123	138	147	232
28	232	253	230	200	263	216	155	104	124	138	147	275
29	234	251	223	200	260	212	155	106	124	132	149	251
30	232	251	225	198	-	214	149	106	124	134	153	248
31	232	-	225	200	-	216	-	111	-	136	155	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,607	237	195	213	13,100
November	7,203	253	225	240	14,290
December	7,463	248	223	241	14,800
Calendar year 1939	66,369	253	78	182	131,600
January	6,698	244	198	216	13,290
February	6,297	277	200	217	12,490
March	7,270	258	212	235	14,420
April	5,407	212	149	180	10,720
May	3,283	147	92	106	6,510
June	3,879	153	117	129	7,690
July	4,244	168	123	137	8,420
August	4,297	155	130	139	8,520
September	6,218	275	159	207	12,330
Water year 1939-40	68,866	277	92	188	136,600

a No gage-height record; discharge interpolated.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Lemhi River at Salmon, Idaho

Location.- Staff gage, lat. 45°10'00", long. 113°52'30", in SE¼ sec. 5, T. 21 N., R. 22 E., 40 feet upstream from highway bridge, 1,100 feet upstream from diversion gates of power canal, 1,320 feet downstream from Kirtly Creek, and 1 mile southeast of Salmon. Prior to Sept. 4, 1939, staff gage at datum 1.17 feet lower, at site 300 feet downstream and 1,600 feet downstream from Kirtly Creek (previously published incorrectly as 1,000 feet upstream from Kirtly Creek).

Records available.- August 1928 to September 1940.

Average discharge.- 12 years, 215 second-feet.

Extremes.- Maximum discharge observed during year, 586 second-feet Sept. 28 (gage height, 2.75 feet); minimum observed, 18 second-feet Aug. 26 (gage height, C.98 foot).
1928-40: Maximum discharge, 2,400 second-feet June 3, 1936 (gage height, 4.0 feet, from floodmarks, site and datum then in use), from rating curve extended above 1,200 second-feet; minimum, 14 second-feet July 22, 23, 1931, Aug. 30 to Sept. 3, 1937.

Remarks.- Records fair. Many diversions above station for irrigation. Idaho Power Co. (formerly Salmon River Power & Light Co.) diverts water at site 1,100 feet downstream for power development.

Rating table, water year 1939-40, except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 6				June 7 to Sept. 30			
1.6	102	2.4	357	0.9	11	1.8	144
1.8	144	2.6	476	1.1	30	2.1	228
2.0	196	2.8	626	1.3	56	2.4	357
2.2	265			1.5	87	2.8	626

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	131	308	250	a230	b180	318	282	222	438	104	36	24
2	131	291	250	250	b200	318	291	215	463	129	38	28
3	135	291	250	250	b200	291	274	202	504	142	40	30
4	140	299	258	243	b220	282	258	215	533	209	40	32
5	144	299	258	243	b240	282	265	222	547	166	38	34
6	163	299	258	235	b230	274	258	a194	547	146	37	36
7	163	299	258	228	b220	274	250	166	533	140	34	38
8	174	308	258	222	215	265	235	118	533	131	36	47
9	182	308	265	a225	215	258	235	110	426	108	34	55
10	222	299	258	*228	215	243	243	102	402	97	36	68
11	a218	291	258	228	209	228	235	106	332	85	36	77
12	215	282	258	222	209	222	228	235	269	79	33	89
13	215	265	258	222	209	222	243	265	265	74	30	134
14	215	274	258	250	215	a225	243	328	265	71	30	196
15	215	265	258	250	215	228	258	308	258	67	27	199
16	222	265	258	265	215	a243	265	282	228	59	26	196
17	215	265	250	202	215	258	250	282	215	59	24	193
18	215	265	250	185	215	a246	243	274	196	55	24	222
19	228	250	250	149	212	235	250	278	196	52	23	254
20	222	250	243	118	209	228	243	274	190	51	22	265
21	215	258	228	110	202	235	265	250	190	47	21	261
22	209	258	222	118	202	235	243	243	196	42	a21	274
23	215	250	222	122	202	235	228	228	190	40	21	274
24	215	250	215	140	222	243	222	250	179	40	22	265
25	239	243	196	b145	222	258	222	282	158	39	20	274
26	265	250	185	b160	235	265	228	438	140	36	18	318
27	282	258	185	b170	265	282	222	413	127	38	21	470
28	308	258	179	*b187	291	274	222	391	112	42	24	586
29	299	258	193	b180	318	265	235	413	102	39	26	512
30	308	250	196	b170	-	258	222	413	94	38	27	463
31	308	-	209	b160	-	291	-	419	-	33	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,628	308	131	214	13,150
November	8,206	308	243	274	16,280
December	7,334	265	179	237	14,550
Calendar year 1939	87,805	890	-	241	174,200
January	6,107	265	110	197	12,110
February	6,417	318	180	221	12,730
March	7,981	318	222	257	15,830
April	7,358	291	222	245	14,590
May	8,138	438	102	263	16,140
June	8,828	547	94	294	17,510
July	2,458	209	33	79.3	4,880
August	891	40	18	28.7	1,770
September	5,914	586	24	197	11,730
Water year 1939-40	76,260	586	18	208	151,300

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

Middle Fork of Salmon River near Cape Horn, Idaho

Location.- Water-stage recorder, lat. 44°25', long. 115°18', in sec. 34, T. 13 N., R. 11 E., 1,100 feet downstream from Little Beaver Creek, half a mile downstream from confluence of Marsh and Beaver Creeks, and 1½ miles northwest of Cape Horn.

Drainage area.- 138 square miles.

Records available.- September 1928 to September 1940.

Average discharge.- 12 years, 196 second-feet.

Extremes.- Maximum discharge recorded during year, 1,640 second-feet May 11 (gage height, 5.62 feet); minimum, not determined, probably occurred during winter.
1928-40: Maximum discharge, 2,340 second-feet June 9, 1933 (gage height, 6.26 feet), from rating curve extended above 1,900 second-feet; minimum recorded, 35 second-feet (estimated) Nov. 28-30, 1929, but may have been less during some winters.

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

Rating table, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 16 to Sept. 30)

2.2	40	3.4	319	4.6	880
2.5	85	3.7	433	4.9	1,065
2.8	145	4.0	565	5.2	1,290
3.1	223	4.3	715	5.5	1,550

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	71	62				a120	333	1,060	253	109	78
2	78	70	64				a110	437	1,000	253	107	89
3	75	68	62				a110	589	910	250	105	103
4	73	68	b60				a100	589	880	247	105	130
5	85	64	b60				a100	524	852	215	101	111
6	98	70	b60				a100	537	742	203	101	94
7	87	70	59				99	565	715	192	101	92
8	80	66	68				99	638	638	187	99	99
9	75	62	119				103	798	589	182	96	92
10	73	b60	96				101	970	551	174	94	94
11	73	68	85				101	1,250	560	167	94	96
12	73	68	83				113	1,420	589	162	92	94
13	71	68	b80			a65	141	1,420	638	157	92	134
14	70	b65	76				187	1,330	613	152	90	116
15	70	b60	76	a70	a65		223	1,290	565	155	90	103
16	70	b55	94				212	1,250	524	155	89	113
17	70	*b55	87				232	1,210	493	155	89	109
18	68	b55	92				279	1,170	462	147	87	109
19	68	b60	b80				312	1,210	437	145	85	113
20	70	b60	b85				337	1,250	409	138	83	117
21	69	b60	b80				319	1,250	378	132	83	103
22	68	64	73				330	1,250	348	127	83	98
23	68	b60	b70				363	1,330	326	123	83	94
24	70	b60	b70				378	1,370	305	121	92	92
25	76	b60					397	1,420	288	121	94	99
26	73	64					397	1,370	275	127	89	98
27	70	64	a65				401	1,290	263	136	85	101
28	76	60				a90	389	1,170	250	125	83	115
29	75	60					363	1,060	238	119	82	119
30	71	62			-		330	1,060	232	115	80	121
31	71	-			-		-	1,060	-	111	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	2,284	98	68	73.7	0.534	0.62	4,530
November	1,897	71	55	63.2	.458	.51	3,760
December	2,296	119	-	74.1	.537	.62	4,550
Calendar year 1939	57,419	825	-	157	1.14	15.49	113,900
January	2,170	-	-	70	.507	.58	4,300
February	1,885	-	-	65	.471	.51	3,740
March	2,165	-	-	69.8	.506	.58	4,290
April	6,846	401	99	228	1.65	1.84	13,580
May	32,410	1,420	333	1,045	7.57	8.73	64,280
June	16,130	1,060	232	538	3.90	4.35	31,990
July	5,046	253	111	163	1.18	1.36	10,010
August	2,843	109	80	91.7	.664	.77	5,640
September	3,125	134	78	104	.754	.84	6,200
Water year 1939-40	79,097	1,420	-	216	1.57	21.31	156,900

*Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records, and records for Johnson Creek at Yellow Pine and other nearby stations.
b Stage-discharge relation affected by ice.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Bear Valley Creek near Cape Horn, Idaho

Location.- Water-stage recorder in about sec. 31, T. 13 N., R. 10 E., 250 feet downstream from Fir Creek, 5 miles upstream from mouth, and 7 miles northwest of Cape Horn.

Drainage area.- 180 square miles.

Records available.- September 1921 to September 1928 (fragmentary), October 1928 to September 1940.

Average discharge.- 12 years (1928-40), 236 second-feet.

Extremes.- Maximum discharge recorded during year, 1,860 second-feet about May 11 (gage height, 4.20 feet, from recorded range of stage; minimum, not determined, probably occurred during winter.
1921-40: Maximum discharge, 3,450 second-feet June 9, 1933 (gage height, 5.49 feet), from rating curve extended above 2,000 second-feet); minimum recorded, 28 second-feet Nov. 11, 1951.

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

Rating table, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.2	74	2.4	500	3.6	1,330
1.5	135	2.7	675	3.9	1,580
1.8	225	3.0	875	4.2	1,860
2.1	348	3.3	1,095		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	98	87	b105			220	500	1,130	218	112	79
2	96	96	85	117			210	650	1,060	218	110	83
3	98	96	81	117			200	900	982	211	106	96
4	90	94	78	114			200	900	945	255	104	121
5	104	88	78	108			190	800	945	218	102	128
6	140	88	b80	96			190	750	854	198	98	106
7	128	102	81				190	800	805	185	98	94
8	108	94	94				191	900	786	179	96	104
9	98	85	185				201	1,100	694	176	92	102
10	94	81	233				188	1,250	657	170	90	98
11	90	96	156				198	1,550	639	164	90	94
12	90	92	114				215	1,750	645	158	90	90
13	90	90	b110			b80	267	1,750	645	153	92	119
14	88	87	b110				353	1,600	621	148	90	135
15	88	83	112		b80		425	1,500	573	148	88	110
16	87	b80	130				390	1,450	533	151	88	110
17	88	*b80	158				395	1,400	489	148	87	114
18	88	b80	128				456	1,400	456	145	87	114
19	88	b85	126		b90		538	1,450	420	145	85	124
20	88	b85	133				603	1,500	390	140	85	148
21	88	90	117				550	1,450	362	138	85	126
22	87	96	119				561	1,400	335	133	85	112
23	88	81	114				609	1,450	313	128	87	106
24	88	85	106				603	1,500	292	121	87	102
25	96	85					621	1,500	275	121	90	104
26	98	96					615	1,500	259	124	92	119
27	90	88	b90				639	1,400	248	140	88	112
28	98	79				b170	639	1,300	236	135	87	124
29	112	83					597	1,200	225	126	85	135
30	106	87			-		500	1,200	218	121	83	145
31	100	-			-		-	1,200	-	117	81	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	2,973	140	81	95.9	0.533	0.61	5,900
November	2,650	102	79	88.3	.491	.55	5,260
December	3,445	233	-	111	.617	.71	6,830
Calendar year 1939	70,434	1,210	-	193	1.07	14.53	139,700
January	2,907	117	-	93.8	.521	.60	5,770
February	2,320	-	-	80	.444	.48	4,600
March	3,020	-	-	97.4	.541	.62	5,990
April	11,754	639	188	392	2.18	2.43	23,310
May	39,000	1,750	500	1,258	6.99	8.06	77,360
June	17,032	1,130	218	568	3.16	3.53	33,780
July	4,932	255	117	159	.883	1.02	9,780
August	2,840	112	81	91.6	.509	.59	5,630
September	3,354	148	79	112	.622	.69	6,650
Water year 1939-40	96,227	1,750	-	263	1.46	19.89	190,900

*Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Jan. 7 to Apr. 7, Apr. 30 to May 31; discharge computed on basis of weather records and records for Johnson Creek at Yellow Pine and other nearby stations.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

South Fork of Salmon River near Knox, Idaho

Location.- Staff gage, lat. 44°39', long. 115°42', in NW¼ sec. 11, T. 15 N., R. 6 E., an eighth of a mile below Curtis Creek, three-quarters of a mile above Warm Lake Creek, 1¼ miles southwest of Knox, and 21 miles northeast of Cascade.

Drainage area.- 92 square miles.

Records available.- September 1928 to September 1940.

Average discharge.- 12 years, 118 second-feet.

Extremes.- Maximum daily discharge during year, 800 second-feet May 12, 13; minimum discharge, not determined, probably occurred during ice period.
1928-40: Maximum discharge observed, 1,560 second-feet June 9, 1933 (gage height, 4.69 feet), from rating curve extended above 1,000 second-feet; minimum observed, 16 second-feet Feb. 17, Aug. 19, 20, 1931, but may have been less during a winter period.

Remarks.- Records fair except those for Nov. 1 to Apr. 19, which are poor. Staff gage read about thrice weekly. Discharge interpolated for intervening days. No diversion above station.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31		32					319	576	117	51	32
2	32		32					325	556	109	50	32
3	32		32					332	509	101	45	d35
4	31		32					338	457	98	44	d40
5	31		32					338	464	95	44	d45
6	d40		32					338	442	92	43	40
7	d35		33					368	421	89	42	42
8	d30		34					399	400	84	41	56
9	29		56					493	380	80	40	d60
10	30		78				d200	588	359	76	40	d60
11	32		57					682	338	72	39	61
12	32		36					d800	399	68	39	60
13	32		38					d800	420	67	38	59
14	32		40			d55		d750	338	66	37	55
15	32	d30	40	d40	d40			d700	300	65	36	50
16	32							d650	300	64	35	46
17	31							d650	300	64	34	41
18	31							630	282	63	34	44
19	31							656	264	61	33	46
20	31						338	683	240	60	33	44
21	31						348	709	215	60	33	42
22	31						358	691	197	60	33	40
23	32		d40				351	674	178	58	32	39
24	33						345	656	160	57	32	38
25	34						338	656	135	56	34	48
26	35						338	656	132	55	33	44
27	35						338	656	129	54	33	40
28	36					150	338	656	126	54	32	41
29	36						338	636	121	53	32	41
30	37				-		328	616	119	52	32	42
31	d35				-		-	596	-	51	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,012	40	29	32.6	0.354	0.41	2,010
November	900	-	-	30.0	.326	.36	1,790
December	1,244	78	-	40.1	.436	.50	2,470
Calendar year 1939	34,239	605	-	93.8	1.02	13.84	67,920
January	1,240	-	-	40	.435	.50	2,460
February	1,160	-	-	40	.435	.47	2,300
March	2,275	-	-	73.4	.798	.92	4,510
April	7,558	358	-	252	2.74	3.06	14,990
May	18,041	800	319	582	6.33	7.30	35,780
June	9,287	576	119	310	3.37	3.76	18,420
July	2,201	117	51	71.0	.772	.89	4,370
August	1,156	51	32	37.3	.405	.47	2,290
September	1,363	61	32	45.4	.493	.55	2,700
Water year 1939-40	47,437	800	-	130	1.41	19.19	94,090

d Doubtful gage-height record; discharge computed on basis of weather records and records for station near Warren and for Johnson Creek at Yellow Pine.

9-233 April 1936 UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

South Fork of Salmon River near Warren, Idaho

Location.- Staff gage, lat. 45°09', long. 115°35', in SE¼ sec. 15, T. 21 N., R. 7 E., 500 feet downstream from Elk Creek, 900 feet north of Elk Creek power plant, and 8 miles southeast of Warren.

Drainage area.- 1,160 square miles.

Records available.- July 1931 to September 1940.

Extremes.- Maximum discharge observed during year, 10,200 second-feet May 12 (gage height, 10.00 feet); minimum discharge observed, 180 second-feet Dec. 27 (gage height, 2.26 feet).

1931-40: Maximum discharge observed, 20,000 second-feet June 9, 1933 (gage height, 13.16 feet), from rating curve extended above 8,000 second-feet; minimum discharge observed, that of Dec. 27, 1939.

Remarks.- Records good. Gage read twice daily. No appreciable diversion or regulation.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

2.2	170	3.7	720	5.6	2,420	8.0	6,110
2.5	230	4.0	920	6.0	2,890	8.5	7,060
2.8	310	4.4	1,240	6.5	3,560	9.0	8,060
3.1	420	4.8	1,600	7.0	4,340	9.5	9,110
3.4	555	5.2	1,990	7.5	5,200	10.0	10,210

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	362	420	380	580	380	1,000	3,020	2,770	7,660	1,510	580	362
2	380	420	380	690	400	850	2,530	3,150	7,260	1,420	555	380
3	440	400	400	750	432	780	2,200	4,680	6,870	1,330	555	400
4	400	400	362	660	482	720	1,990	5,020	6,490	1,330	530	482
5	482	345	362	605	440	690	1,990	4,340	6,490	1,240	530	580
6	750	362	362	555	505	632	1,790	3,710	5,740	1,160	505	505
7	605	440	380	420	505	632	1,690	4,020	5,380	1,080	505	440
8	505	420	380	482	482	750	1,690	4,510	4,680	1,080	482	460
9	482	380	605	555	482	690	1,890	5,200	4,340	1,000	482	505
10	460	295	1,160	530	505	690	1,790	6,300	4,180	1,000	460	460
11	440	400	885	400	505	632	1,790	8,900	4,340	1,000	460	440
12	440	380	660	420	482	580	1,890	9,770	4,850	920	460	460
13	440	380	580	380	420	555	2,200	9,550	5,200	885	440	690
14	440	380	555	420	482	580	2,890	8,690	5,020	850	440	780
15	420	310	555	400	482	555	3,420	8,270	4,680	815	440	605
16	420	295	780	482	440	580	3,020	8,060	4,020	850	440	530
17	420	295	1,240	530	382	605	2,770	7,860	3,560	850	440	505
18	400	295	920	460	460	605	2,890	7,660	3,420	815	420	482
19	400	328	660	295	440	605	3,280	8,060	3,150	780	420	505
20	400	328	660	362	420	605	4,340	8,480	3,150	780	420	555
21	400	345	605	380	328	690	3,560	8,270	2,890	750	400	555
22	400	400	555	420	440	750	3,280	8,480	2,530	720	400	505
23	400	362	505	482	440	850	3,420	8,690	2,310	690	400	482
24	400	328	505	460	440	1,000	3,280	9,550	2,090	660	420	460
25	420	328	362	440	460	1,160	3,150	9,770	1,990	632	420	460
26	420	380	328	440	605	1,790	3,280	9,330	1,890	632	420	482
27	400	460	180	530	780	2,310	3,420	8,900	1,790	720	400	460
28	440	420	400	505	1,080	1,990	3,280	8,270	1,690	690	400	505
29	460	345	505	460	1,240	1,790	3,150	7,660	1,600	660	400	580
30	440	362	580	440	-	2,090	2,890	7,860	1,510	605	380	815
31	420	-	580	420	-	3,150	-	7,860	-	605	380	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	13,686	750	362	441	0.380	0.44	27,150
November	11,003	460	295	367	.316	.35	21,820
December	17,371	1,240	180	560	.483	.56	34,450
Calendar year 1939	460,961	8,060	180	1,263	1.09	14.79	914,300
January	14,953	750	295	482	.416	.48	29,660
February	14,989	1,240	328	517	.446	.48	29,730
March	30,906	3,150	555	997	.859	.99	61,300
April	81,780	4,340	1,690	2,726	2.35	2.62	162,200
May	223,640	9,770	2,770	7,214	6.22	7.17	443,600
June	120,770	7,660	1,510	4,026	3.47	3.87	239,500
July	28,059	1,510	605	905	.780	.90	55,650
August	13,984	580	380	451	.389	.45	27,740
September	15,430	815	362	514	.443	.49	30,600
Water year 1939-40	586,571	9,770	180	1,603	1.38	18.80	1,163,000

East Fork of South Fork of Salmon River at Stibnite, Idaho

Location.- Water-stage recorder, lat. 44°54', long. 115°19', in about sec. 14, T. 18 N., R. 9 E., 30 feet downstream from Meadow Creek, half a mile northeast of Stibnite post office, and 10⅛ miles upstream from Johnson Creek.

Drainage area.- 19.5 square miles.

Records available.- June 1928 to September 1940.

Average discharge.- 12 years, 23.3 second-feet.

Extremes.- Maximum discharge during year, 162 second-feet May 25 (gage height, 3.53 feet); minimum recorded, 3 second-feet Nov. 4 (gage height, 1.74 feet).
1928-40: Maximum discharge recorded, 369 second-feet June 14, 1933 (gage height, 4.49 feet); minimum discharge, 2 second-feet Oct. 29, 1936 (gage height, 1.71 feet).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Slight regulation by storage in reservoir on South Fork of Meadow Creek (capacity, about 700 acre-feet) and by a diversion from Meadow Creek of about a third of a second-foot for transporting mine tailings.

Cooperation.- Gage-height record furnished by Bradley Mining Co.

Rating table, water year 1939-40, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 8 to Sept. 30)

1.7	2.1	2.5	34	3.3	125
1.9	5.5	2.7	51	3.5	157
2.1	12	2.9	71		
2.3	21	3.1	96		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	7	h8	a9	a8	a8	a14	a30	125	29	13	11
2	6	7	a8	a9	a8	a8	a13	a50	116	26	12	11
3	6	7	a8	h9	a8	h8	a12	a50	109	24	12	13
4	6	6	a8	a9	a8	a8	12	a40	101	24	12	20
5	a10	b6	a8	a8	a8	a8	11	a40	94	23	12	14
6	a9	7	h8	h8	h8	h8	10	a45	85	22	12	13
7	a8	8	a8	a8	a8	a8	11	a50	92	21	12	14
8	a8	8	h6	a9	a8	a8	11	58	77	20	11	15
9	a7	9	a7	h9	a7	a7	11	89	68	20	11	14
10	a7	7	h7	a9	h7	a7	11	114	68	20	11	11
11	7	8	a7	a9	a8	h7	11	120	71	19	11	11
12	6	7	h7	b9	h8	a7	14	116	76	19	10	11
13	6	8	a8	a9	a8	a8	20	a110	76	18	10	15
14	6	7	h9	h9	a8	h8	29	a105	67	18	10	12
15	7	8	a9	a8	a8	a9	33	a100	63	18	10	14
16	7	7	h9	h8	a9	a9	26	a105	59	18	10	13
17	7	b8	a9	a8	a9	h10	27	a110	57	18	10	13
18	7	a8	h8	a8	a9	a9	36	a115	51	18	9	14
19	7	a8	a8	a9	h9	a9	45	124	46	17	9	15
20	5	*h9	a9	h9	a8	h8	38	124	44	16	9	11
21	7	a8	h9	a9	h8	a10	37	124	41	16	9	11
22	7	a8	a8	a8	a8	h11	37	124	39	16	8	11
23	7	a8	b8	h8	a8	a12	37	131	36	14	8	12
24	7	a8	b8	a8	a8	h12	36	138	36	14	8	12
25	6	a8	a8	a8	a7	a13	36	149	35	14	8	11
26	7	h8	a8	a8	a7	a13	36	155	33	14	8	10
27	7	a8	b8	b8	h7	h14	36	143	31	14	9	11
28	7	b8	a8	a8	a7	a13	34	131	30	14	10	13
29	7	a8	a8	a8	a7	a13	30	130	28	13	10	14
30	7	a8	h9	a8	-	a16	27	128	28	12	10	18
31	7	-	a9	h8	-	a15	-	128	-	13	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	214	10	5	6.9	424
November	230	9	6	7.7	456
December	250	9	6	8.1	496
Calendar year 1939	6,688	98	-	18.3	13,260
January	262	9	8	8.5	520
February	229	9	7	7.9	454
March	304	16	7	9.8	603
April	741	45	10	24.7	1,470
May	3,176	155	30	102	6,300
June	1,882	125	28	62.7	3,730
July	562	29	12	18.1	1,110
August	315	13	8	10.2	625
September	388	20	10	12.9	770
Water year 1939-40	8,553	155	5	23.4	16,960

*Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of observer's notes, weather records and records for Johnson Creek at Yellow Pine.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

East Fork of South Fork of Salmon River near Stibnite, Idaho

Location.- Staff gage, lat. 44°56', long. 115°20', in sec. 34, T. 19 N., R. 9 E., 200 feet downstream from Sugar Creek, 3 miles north of Stibnite post office, and 8½ miles upstream from Johnson Creek.

Drainage area.- 42.5 square miles.

Records available.- June 1928 to September 1940.

Average discharge.- 12 years, 50.7 second-feet.

Extremes.- Maximum discharge observed during year, 365 second-feet May 26; minimum discharge not determined, probably occurred during winter when gage was not read.
1928-40: Maximum discharge observed, 783 second-feet June 15, 1933 (gage height, 3.51 feet), from rating curve extended above 500 second-feet; minimum observed, 10 second-feet Apr. 7, 1929, Apr. 7, 1936, but may have been less during periods of ice effect.

Remarks.- Records fair except those for October 1 to February 29 which are poor. Some regulation by Bradley Mining Co.'s power plant above station and auxiliary storage reservoir on South Fork of Meadow Creek (capacity about 700 acre-feet).

Cooperation.- Gage-height record furnished by Bradley Mining Co.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						19	37	60	h278	53	29	20
2						18	35	80	h235	56	28	h20
3						17	33	100	h229	54	h28	22
4						h16	h32	90	215	52	28	25
5						16	32	85	e205	h51	27	h24
6						16	33	85	180	49	26	23
7						16	h35	95	180	h47	h26	h23
8						h16	35	105	170	44	25	24
9						16	35	140	h167	h41	24	23
10						h17	h37	190	h162	40	h23	22
11						16	40	230	160	39	23	h22
12						16	h44	250	160	39	23	22
13						16	50	230	h158	38	23	24
14						16	55	210	h153	38	23	28
15						16	h60	200	140	h37	23	26
16	16	14	17	16	16	16	50	210	130	37	23	h25
17						h16	50	220	h118	37	h22	25
18						16	60	230	110	h37	22	25
19						16	75	h242	h108	36	h22	26
20						17	75	h261	100	35	21	h28
21						18	70	260	95	34	20	26
22						20	70	270	h92	h33	h19	h25
23						23	70	h295	85	32	19	23
24						26	70	320	h80	31	20	h22
25						30	70	340	h71	31	h20	h25
26						h35	70	h365	68	31	20	24
27						38	70	340	65	31	19	24
28						35	65	h321	h63	30	h19	26
29						33	60	300	h58	h30	19	27
30					-	h37	55	h295	58	30	19	h28
31		-			-	40	-	285	-	30	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	496	-	-	16.0	0.376	0.43	984
November	420	-	-	14.0	.329	.37	833
December	527	-	-	17.0	.400	.46	1,050
Calendar year 1939	14,878	220	-	40.8	.960	19.01	29,530
January	496	-	-	16.0	.376	.43	984
February	464	-	-	16.0	.376	.41	920
March	663	40	16	21.4	.504	.58	1,320
April	1,573	75	32	52.4	1.23	1.37	3,120
May	6,895	365	60	216	5.08	5.86	13,280
June	4,093	278	58	136	3.20	3.57	8,120
July	1,208	58	30	39.0	.918	1.06	2,400
August	703	29	19	22.7	.534	.62	1,390
September	727	28	20	24.2	.569	.63	1,440
Water year 1939-40	18,065	365	-	49.4	1.16	15.79	35,840

h Discharge computed from staff gage reading. Discharge for other days and mean monthly discharge, October to February, computed on basis of weather records and records for stations at Stibnite, near Yellow Pine, and Johnson Creek at Yellow Pine, and discharge measurements on Oct. 18 and Nov. 20.

9-233 April 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

East Fork of South Fork of Salmon River near Yellow Pine, Idaho

Location.- Water-stage recorder, lat. 44°58', long. 115°27', in NE¼ sec. 27, T. 19 N., R. 8 E., 200 feet upstream from Forest Service highway bridge, 1½ miles east of Yellow Pine, 1½ miles upstream from Quartz Creek, 2 miles downstream from Profile Creek, and 2.8 miles upstream from Johnson Creek.

Drainage area.- 104 square miles.

Records available.- August 1928 to September 1940.

Average discharge.- 12 years, 135 second-feet.

Extremes.- Maximum discharge during year, 890 second-feet May 25 (gage height, 3.69 feet); minimum not determined, probably occurred during period of ice effect.
1928-40: Maximum discharge, 2,050 second-feet June 14, 1933 (gage height, 5.26 feet), from rating curve extended above 1,100 second-feet; minimum discharge recorded, 25 second-feet Oct. 23, 1935, but may have been less during periods of ice effect.

Remarks.- Records good except those for Nov. 5 to May 19 and Aug. 21 to Sept. 14, which are fair. Slight regulation by Bradley Mining Co.'s power plant on this stream and small reservoir on South Fork of Meadow Creek.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	47					a115	168	704	165	76	h51
2	53	46					d105	182	656	157	74	a55
3	54	46					a100	a280	604	146	72	a60
4	54	45					a95	a300	572	144	71	a70
5	63						a90	a250	525	136	71	a75
6	67						a90	a250	506	132	70	a65
7	58						a90	a250	491	127	68	a60
8	56						a95	a270	446	122	65	a60
9	54						a100	322	408	120	64	a65
10	53						a95	d450	392	116	63	h68
11	53	40				50	96	d650	417	112	60	a55
12	53						101	749	442	109	60	a55
13	53						d140	704	455	107	59	a70
14	52						220	639	429	105	60	a80
15	51		50	45	45		220	604	400	103	59	67
16	51						170	d600	373	103	59	68
17	50						151	650	347	103	59	62
18	48						162	656	329	101	60	60
19	48						190	686	315	99	59	60
20	47	*h39					216	692	292	96	59	64
21	48						202	674	273	92	a58	60
22	48						185	680	254	88	a58	58
23	47						193	716	235	85	a58	56
24	47						190	789	220	83	a58	56
25	48	40					188	831	211	82	h58	60
26	47						188	831	199	85	a60	58
27	48					100	190	768	190	85	a59	58
28	51						188	692	179	82	a57	65
29	50						182	668	170	80	a55	65
30	48				-		176	686	165	77	a53	80
31	48	-			-		-	704	-	77	a52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	1,601	67	47	51.6	0.496	0.57	3,180
November	1,223	-	-	40.8	.392	.44	2,430
December	1,550	-	-	50	.481	.55	3,070
Calendar year 1939	42,821	644	-	117	1.12	15.33	84,940
January	1,395	-	-	45	.433	.50	2,770
February	1,305	-	-	45	.433	.47	2,590
March	1,900	-	-	61.3	.589	.68	3,770
April	4,523	220	90	151	1.45	1.62	8,970
May	17,391	831	168	561	5.39	6.21	34,490
June	11,199	704	165	373	3.59	4.00	22,210
July	3,319	165	77	107	1.03	1.19	6,580
August	1,914	76	52	61.7	.593	.68	3,800
September	1,976	80	51	62.5	.601	.67	3,720
Water year 1939-40	49,196	831	-	134	1.29	17.58	97,580

*Winter discharge measurement made on this day.
a No gage-height record.
d Doubtful gage-height record.
h Computed from staff-gage reading.
Note.- Discharge for periods of ice effect, Nov. 5 to Mar. 31, and for days of no gage-height record or doubtful gage-height record computed on basis of weather records and records for station on Johnson Creek near Yellow Pine.

Johnson Creek at Yellow Pine, Idaho

Location.- Water-stage recorder, lat. 44°58', long. 115°30', in NE¼ sec. 29, T. 19 N., R. 8 E., 700 feet upstream from mouth and a quarter of a mile southwest of Yellow Pine post office.

Drainage area.- 213 square miles.

Records available.- August 1928 to September 1940.

Average discharge.- 12 years, 282 second-feet.

Extremes.- Maximum discharge during year, 2,910 second-feet May 13 (gage height, 5.49 feet); minimum, 27 second-feet Dec. 25 (gage height, 0.74 foot).
1928-40: Maximum discharge, 5,150 second-feet June 9, 1933 (gage height, 7.62 feet), from rating curve extended above 2,800 second-feet; minimum, 22 second-feet Nov. 30, 1933; minimum gage height, 0.70 foot Nov. 30, 1937.

Remarks.- Records good. During late fall of 1936, Bureau of Reclamation cut an intermountain channel to divert a small flow from a tributary of Johnson Creek to Deadwood River Basin in order to supplement storage in Deadwood Reservoir. Measurement of June 14 indicated flow in diversion of 30.6 second-feet.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

0.7	24	2.2	375	3.7	1,245
1.0	51	2.5	510	4.0	1,470
1.3	98	2.8	665	4.4	1,800
1.6	167	3.1	840	4.8	2,170
1.9	260	3.4	1,035	5.2	2,580

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	66	60	78	60	85	271	545	1,670	264	94	55
2	61	64	60	89	66	84	257	704	1,510	257	91	59
3	64	61	60	85	a67	78	237	1,040	1,430	240	89	69
4	61	60	58	80	a67	77	227	1,070	1,360	230	87	87
5	75	49	54	77	a68	77	221	872	1,360	218	85	96
6	104	55	59	69	a68	70	215	810	1,210	202	82	78
7	89	66	58	51	69	75	218	872	1,140	193	82	69
8	78	61	61	78	66	80	221	1,000	1,040	187	82	72
9	72	49	104	77	64	72	234	1,240	938	182	78	80
10	67	47	139	70	69	72	224	1,590	938	173	75	- 74
11	67	59	116	52	67	64	230	2,170	1,000	164	74	70
12	67	58	84	66	56	60	247	2,520	1,070	157	72	74
13	66	56	78	54	a62	60	319	2,420	1,100	149	70	94
14	64	54	80	67	67	61	454	2,120	1,000	144	69	116
15	63	48	78	58	63	59	530	2,020	905	141	69	89
16	61	48	98	70	56	59	463	1,940	840	144	67	89
17	61	46	112	74	63	59	472	1,940	762	144	66	84
18	60	48	80	63	60	58	545	1,890	704	141	66	78
19	60	50	77	52	59	59	632	2,020	654	136	63	82
20	60	55	84	66	54	63	a750	2,070	600	132	63	87
21	60	56	74	56	51	66	a700	2,020	535	127	63	85
22	59	60	70	66	63	72	692	2,020	482	118	61	85
23	59	58	66	66	59	82	704	2,120	436	114	61	82
24	59	55	67	64	60	96	660	2,270	405	112	61	77
25	63	52	38	64	67	123	676	2,320	375	110	63	77
26	64	59	56	67	75	164	676	2,270	346	110	64	82
27	61	64	67	69	80	202	709	2,020	323	118	63	80
28	64	60	55	66	91	179	687	1,800	304	114	60	93
29	70	51	69	64	93	176	643	1,760	282	108	60	102
30	67	59	77	64	-	215	575	1,800	267	102	59	127
31	67	-	77	61	-	278	-	1,760	-	96	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	2,048	104	55	66.1	0.310	0.36	4,060
November	1,674	66	46	55.8	.262	.29	3,320
December	2,316	139	38	74.7	.351	.40	4,590
Calendar year 1939	85,925	1,840	38	235	1.10	14.99	170,400
January	2,083	89	51	67.2	.315	.36	4,130
February	1,910	93	51	65.9	.309	.33	3,790
March	3,025	278	58	97.6	.458	.53	6,000
April	13,689	750	215	456	2.14	2.39	27,150
May	53,013	2,520	545	1,710	8.03	9.26	105,100
June	24,986	1,670	267	833	3.91	4.36	49,560
July	4,827	264	96	156	.732	.84	9,570
August	2,197	94	58	70.9	.333	.38	4,360
September	2,492	127	55	83.1	.390	.44	4,940
Water year 1939-40	114,260	2,520	38	312	1.46	19.94	226,600

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

400457 O - 41 - 15

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Mud Creek near Tamarack, Idaho

Location.- Staff gage, lat. 45°00', long. 116°21', in sec. 9, T. 19 N., R. 1 E., 0.5 mile upstream from Little Mud Creek, 3¼ miles northeast of Tamarack, and 5 miles upstream from mouth.

Drainage area.- 15.8 square miles.

Records available.- April 1937 to September 1940 (fragmentary).

Extremes.- Maximum and minimum discharge during year not determined.
1937-38: Maximum discharge observed, about 300 second-feet probably on May 1, 1938 (gage height, 3.34 feet, from floodmark); minimum discharge, probably less than half a second-foot during late summer of 1937.

Remarks.- Records good. No diversion or regulation.

Discharge measurements, in second-feet, water year 1939-40

Oct. 25	1.0	Mar. 9	26	May 4	36	July 18	1.3
Dec. 11	4.6	Apr. 4	114	23	8.4	Aug. 13	.8
Feb. 17	5.0	26	47	June 21	2.2	Sept.11	1.0

Boulder Creek near Tamarack, Idaho

Location.- Water-stage recorder, lat. 45°05', long. 116°27', in SW¼ of sec. 10, T. 20 N., R. 1 W., 350 feet upstream from trans-mountain diversion to Weiser River Basin and 8 miles northwest of Tamarack.

Drainage area.- 6.5 square miles (revised).

Records available.- April 1938 to September 1940 (incomplete).

Extremes.- Maximum discharge during year, 134 second-feet May 11 (gage height, 2.32 feet); minimum, not determined, occurred during period of ice effect.
1938-40: Maximum discharge, 226 second-feet May 27, 1938 (gage height, 2.95 feet) from rating curve extended above 180 second-feet; minimum, not determined.

Remarks.- Records good. No regulation. Small diversion to Weiser River Basin about 350 feet below station.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8						-	34	52	5.0	2.0	1.0
2	1.1						-	41	46	4.7	2.0	1.0
3	1.0						-	55	42	4.5	1.8	1.0
4	.9						-	57	38	4.3	1.8	2.0
5	3.2						-	52	35	4.1	1.7	2.1
6	2.4						-	50	30	3.8	1.7	1.3
7	1.4						-	50	28	3.6	1.7	1.2
8	1.1						-	55	26	3.6	1.6	1.4
9	1.0						-	66	24	3.4	1.6	1.2
10	.9						12	89	22	3.4	1.6	1.3
11	.9						12	116	21	3.4	1.4	1.2
12	.9						15	120	20	3.2	1.4	1.2
13	.9						20	112	18	3.0	1.4	4.3
14	.9						25	101	18	3.0	1.3	2.1
15	.9						29	93	15	3.0	1.3	1.6
16	.9						27	90	14	3.0	1.3	1.8
17	.9						28	89	13	3.0	1.3	1.6
18	.9						32	87	11	3.0	1.3	2.0
19	.8						37	89	10	2.8	1.3	2.0
20	.8						44	91	9.8	2.6	1.3	2.0
21	.9						42	93	8.7	2.4	1.2	2.0
22	.9						44	93	8.3	2.4	1.2	1.7
23	.9						46	94	7.6	2.3	1.2	1.6
24	.9						45	93	7.0	2.3	1.2	1.4
25	.9						41	91	6.7	2.1	1.2	1.3
26	*b.5						41	82	6.2	2.6	1.2	1.3
27	-						39	71	5.9	3.0	1.2	1.4
28	-						39	62	5.6	2.6	1.1	1.7
29	-						38	58	5.0	2.3	1.0	1.7
30	-						35	55	5.0	2.1	1.0	3.0
31	-						-	48	-	2.1	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October 1-26	27.6	3.2	0.5	1.06	0.180	0.17	55
November	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-
Calendar year	-	-	-	-	-	-	-
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April 10-30	691	46	12	32.9	5.56	4.36	1,370
May	2,377	120	34	76.7	13.0	14.99	4,710
June	560.8	52	5.0	18.7	3.17	3.54	1,110
July	98.6	5.0	2.1	3.12	.529	.61	192
August	43.3	2.0	1.0	1.40	.237	.27	86
September	50.4	4.3	1.0	1.68	.285	.32	100
Water year	-	-	-	-	-	-	-

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Grande Ronde River at La Grande, Oreg.

Location.- Water-stage recorder, lat. 45°21', long. 118°09', in sec. 35, T. 2 S., R. 37 E., 2⅛ miles northwest of La Grande and 4 miles downstream from Fivepoint Creek. Datum of gage is 2,831.25 feet above mean sea level (general adjustment of 1929).

Drainage area.- 678 square miles.

Records available.- February 1918 to June 1923, October 1925 to September 1940. November 1903 to September 1915, at Hilgard, 4 miles upstream.

Average discharge.- 26 years (1905-9, 1910-11, 1912-15, 1918-20, 1921-22, 1925-40), 340 second-feet.

Extremes.- Maximum discharge during year, 2,060 second-feet Feb. 28 (gage height, 4.94 feet); minimum, 3.9 second-feet Aug. 26 (gage height, 1.23 feet).
1903-15, 1918-23, 1925-40: Maximum discharge, 8,880 second-feet Mar. 18, 1932 (gage height, 8.90 feet); minimum, that of Aug. 26, 1940.

Remarks.- Records fair except those for periods of low water, no gage-height record, or ice effect, which are poor. Some discharge measurements made at cable 3 miles above recorder. Small diversions above station for irrigation.

Rating table, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.2	3	2.0	95	3.2	630
1.4	13	2.3	187	3.5	820
1.6	33	2.6	310	4.0	1,200
1.8	57	2.9	455	4.6	1,710

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	a88	32	67	72	1,190	1,120	466	123	24	17	4.8
2	20	a70	31	71	66	1,410	1,040	466	142	23	15	4.5
3	20	a55	30	82	76	1,200	911	499	123	18	12	5.1
4	22	a45	30	84	87	925	827	499	105	25	13	8.1
5	28	a35	21	69	93	755	762	477	93	35	10	26
6	30	a25	30	52	482	630	678	435	87	22	8.1	30
7	31	30	27	41	552	582	648	405	84	20	10	24
8	26	31	31	45	415	768	710	385	93	18	10	19
9	24	27	45	57	395	736	841	385	80	16	7.4	12
10	22	22	69	62	582	642	820	425	71	15	5.7	12
11	22	21	62	42	528	528	755	466	62	13	7.4	13
12	22	25	42	b38	365	445	703	466	54	12	5.4	16
13	22	25	35	b44	342	390	722	425	49	11	5.4	18
14	23	28	38	b56	292	385	800	385	48	10	5.1	30
15	23	a25	41	80	253	395	768	350	44	11	5.4	30
16	23	a27	43	78	206	570	672	319	42	11	5.4	30
17	21	a30	48	71	210	703	588	296	42	20	5.1	26
18	20	a33	*44	71	198	654	570	270	40	23	5.1	37
19	20	a38	38	b65	173	606	576	257	37	31	5.1	43
20	20	a44	44	b58	146	594	588	233	35	30	4.8	36
21	20	a41	42	b47	133	588	528	221	34	28	5.4	34
22	22	a35	36	b50	184	594	488	210	33	23	5.1	33
23	21	a37	30	b52	130	588	494	198	34	18	4.5	28
24	21	a36	26	b54	133	624	516	195	33	15	4.5	26
25	22	a35	b24	b48	214	1,000	494	229	31	13	4.8	23
26	a24	a36	b20	b46	890	1,330	534	198	29	13	4.8	23
27	29	a35	b20	b48	1,360	1,470	482	170	28	21	4.8	31
28	33	33	b25	b50	*1,640	1,280	494	149	27	32	4.8	35
29	a42	29	b32	*b55	1,620	1,060	510	136	25	28	4.8	45
30	a60	25	b50	b60	-	925	472	139	25	22	4.8	47
31	a110	-	66	71	-	976	-	126	-	19	4.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	860	110	17	27.7	1,710
November	1,066	88	21	35.5	2,110
December	1,152	69	20	37.2	2,280
Calendar year 1939	107,460	3,600	6	294	213,100
January	1,814	84	38	58.5	3,600
February	11,837	1,640	66	408	23,480
March	24,543	1,470	385	792	48,680
April	20,111	1,120	472	670	39,890
May	9,880	499	126	319	19,600
June	1,753	142	25	58.4	3,480
July	620	35	10	20.0	1,230
August	215.5	17	4.5	6.95	427
September	749.5	47	4.5	25.0	1,490
Water year 1939-40	74,601.0	1,640	4.5	204	148,000

Peak discharge.- Feb. 6 (10:30 p.m.) 729 sec.-ft.; Feb. 28 (10:30 p.m.) 2,060 sec.-ft.
*Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and unpublished records for station at lower reservoir site, near La Grande.
b Stage-discharge relation affected by ice.

Grande Ronde River at Rondowa, Oreg.

Location.- Water-stage recorder, lat. 45°44', long. 117°47', in NW¼ sec. 23, T. 3 N., R. 40 E., at Rondowa, 500 feet downstream from Wallowa River. Altitude of gage, about 2,280 feet above mean sea level (railroad company profile and Geological Survey river profile).

Drainage area.- 2,555 square miles.

Records available.- October 1926 to September 1940.

Average discharge.- 14 years, 1,816 second-feet.

Extremes.- Maximum discharge during year, 6,100 second-feet Feb. 28 (gage height, 4.88 feet); minimum, 257 second-feet Aug. 23, 24 (gage height, 0.79 foot).
1926-40: Maximum discharge, 22,400 second-feet Mar. 18, 1932 (gage height, 9.30 feet), from rating curve extended above 10,000 second-feet; minimum, 225 second-feet Dec. 19, 1935; minimum daily, 230 second-feet (estimated) Jan. 8, 1937.

Remarks.- Records excellent except those for period of doubtful gage-height record, which are fair. Many diversions above station for irrigation. Flow slightly regulated by Wallowa Lake.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

0.8	260	1.9	1,060	3.5	3,270
1.0	345	2.2	1,380	4.0	4,220
1.3	535	2.6	1,870	4.5	5,260
1.6	775	3.0	2,430	5.0	6,370

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	500	446	793	707	4,690	5,130	d3,060	3,600	932	426	272
2	372	493	439	932	674	5,010	4,800	d3,090	3,720	865	400	268
3	420	486	432	1,160	724	4,400	4,360	d3,580	3,270	820	389	268
4	426	479	432	1,190	829	3,890	4,020	d3,700	3,000	820	384	309
5	479	452	420	1,190	950	3,530	3,910	d3,620	2,820	847	372	446
6	580	452	426	1,090	3,700	2,950	3,620	d3,340	2,720	741	350	406
7	535	472	420	903	3,180	2,640	3,430	d3,140	2,610	690	318	378
8	507	486	452	838	2,540	2,780	3,510	d3,060	2,320	642	304	356
9	486	479	595	838	2,210	2,730	4,140	d3,230	2,110	602	296	350
10	472	465	750	847	2,670	2,610	4,160	d4,160	2,270	580	288	389
11	465	446	690	784	2,560	2,360	3,940	5,220	2,310	535	288	378
12	458	452	610	716	2,170	2,150	3,790	5,280	2,610	514	292	362
13	452	446	565	682	1,910	1,940	3,960	4,760	3,060	479	296	413
14	439	446	558	674	1,770	1,800	4,400	4,420	2,640	446	296	493
15	426	439	595	634	1,610	1,770	4,360	4,200	2,300	432	288	500
16	426	413	674	618	1,430	1,800	4,040	4,060	2,100	465	292	514
17	426	406	732	642	1,440	2,030	3,740	3,910	2,000	486	292	500
18	426	413	674	626	1,430	2,170	3,720	3,720	1,880	493	284	610
19	420	400	618	535	1,380	2,200	3,850	3,720	1,860	528	284	707
20	420	394	618	535	1,240	2,180	3,980	3,920	1,950	550	280	610
21	420	400	618	572	1,130	2,200	3,740	3,830	1,720	550	268	666
22	420	426	595	580	1,140	2,210	3,540	3,830	1,460	528	264	618
23	420	413	580	565	1,070	2,250	3,560	4,160	1,310	500	260	572
24	426	406	558	565	1,050	2,320	3,580	4,440	1,230	465	268	542
25	472	406	452	542	1,600	2,750	3,410	4,650	1,180	446	268	528
26	479	426	384	542	3,600	3,910	3,470	4,060	1,170	472	272	507
27	486	432	528	595	5,550	5,850	3,470	3,530	1,060	580	268	493
28	486	432	514	716	6,350	5,680	3,410	3,200	960	565	268	580
29	542	432	514	766	5,440	5,110	3,340	3,200	894	528	264	626
30	528	432	550	750	-	4,670	3,140	3,320	874	493	268	682
31	507	-	650	724	-	4,650	-	3,430	-	472	264	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14,171	580	350	457	28,110
November	13,224	500	394	441	26,230
December	17,089	750	420	551	33,900
Calendar year 1939	583,750	9,510	335	1,599	1,158,000
January	23,144	1,190	535	747	45,910
February	61,054	5,550	674	2,105	121,100
March	97,230	5,850	1,770	3,136	192,900
April	115,520	5,130	3,140	3,851	229,100
May	118,840	5,280	3,060	3,834	235,700
June	63,008	3,720	874	2,100	125,000
July	18,066	932	432	583	35,830
August	9,351	426	260	302	18,550
September	14,343	* 707	268	478	28,450
Water year 1939-40	565,040	5,850	260	1,544	1,121,000

Peak discharge.- Feb. 6 (2 p.m.) 4,860 sec.-ft.; Feb. 28 (8 p.m.) 6,100 sec.-ft.
d Doubtful gage-height record; discharge computed on basis of partly estimated gage-height record, observer's notes, and records for Imnaha River at Imnaha.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Catherine Creek near Union, Oreg.

Location.- Water-stage recorder, lat. 45°09', long. 117°47', in SE¼ sec. 2, T. 5 S., R. 40 E., 3 miles downstream from Little Catherine Creek and 6 miles southeast of Union.

Drainage area.- 105 square miles.

Records available.- May 1906 to May 1907 (gage heights only), August 1911 to December 1912, March to September 1915, February 1918 to August 1919, October 1925 to September 1940.

Average discharge.- 17 years (1911-12, 1918-19, 1925-40), 115 second-feet.

Extremes.- Maximum discharge during year, 504 second-feet May 10 (gage height, 3.07 feet); minimum, 16 second-feet Nov. 10, 21, Aug. 30, 31.
1906-7, 1911-12, 1915, 1918-19, 1925-40: Maximum discharge observed, 1,240 second-feet May 21, 1912, June 3 or 4, 1933; minimum observed, 4 second-feet Nov. 26, 27, 1930.

Remarks.- Records fair except those for periods of ice effect, which are poor. A few small diversions above station for irrigation; and some water diverted into Big Creek, in Powder River Basin.

Rating tables, water year 1939-40, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 27				Feb. 28 to Sept. 30					
0.6	15	1.2	71	0.6	14	1.5	100	2.7	390
.8	29	1.4	99	.8	26	1.8	159	3.0	480
1.0	48			1.0	41	2.1	226		
				1.2	60	2.4	300		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	27	20	57	35	144	298	240	268	62	27	18
2	22	25	20	65	35	155	288	282	250	58	27	17
3	22	25	20	75	39	134	262	315	228	54	26	18
4	20	21	20	*63	43	118	245	315	212	53	25	32
5	36	23	19	55	44	102	228	288	199	53	25	35
6	34	24	20	41	*68	86	217	270	188	50	24	24
7	26	27	19	46	63	79	221	268	185	47	24	22
8	23	25	34	49	57	84	231	282	166	45	24	20
9	22	23	38	45	54	79	255	333	153	43	22	19
10	22	20	41	40	57	79	245	417	148	41	22	23
11	21	24	32	34	55	71	243	477	153	39	22	21
12	21	23	23	b32	50	67	268	459	159	37	21	21
13	20	23	24	b33	51	62	330	426	163	36	21	38
14	20	23	24	b40	46	60	405	399	144	35	21	35
15	20	23	27	b45	43	61	381	381	132	35	21	26
16	20	22	31	b44	40	72	336	366	118	35	21	28
17	20	23	34	b38	43	83	315	354	111	35	21	25
18	20	22	27	33	41	94	336	345	102	35	20	50
19	20	21	26	b27	38	98	360	351	97	35	19	32
20	21	23	27	b24	34	113	369	357	92	34	19	31
21	20	20	25	b25	35	130	330	348	86	31	18	32
22	20	21	23	b28	35	146	321	339	80	30	19	27
23	20	20	22	b30	35	163	327	345	74	30	19	25
24	23	20	b20	b29	35	192	303	351	69	29	18	24
25	24	20	b19	b27	38	280	295	351	66	27	18	22
26	23	20	b19	b26	57	336	295	309	62	33	18	22
27	25	21	b23	b26	90	345	288	280	59	44	18	22
28	35	19	30	*29	138	282	298	262	58	34	18	26
29	34	20	31	28	*170	245	275	260	57	30	18	26
30	29	21	52	30	-	224	252	265	60	29	17	37
31	28	-	51	32	-	255	-	255	-	28	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	730	36	19	23.5	1,450
November	669	27	19	22.3	1,330
December	841	52	19	27.1	1,670
Calendar year 1939	38,887	723	18	107	77,150
January	1,196	75	24	38.6	2,370
February	1,569	170	34	54.1	3,110
March	4,439	345	60	143	8,800
April	8,817	405	217	294	17,490
May	10,290	477	240	332	20,410
June	3,939	268	57	131	7,810
July	1,207	62	27	38.9	2,390
August	650	27	17	21.0	1,290
September	798	50	17	26.6	1,580
Water year 1939-40	35,145	477	17	96.0	69,700

Peak discharge.- Mar. 26 (10:30 p.m.) 381 sec.-ft.; May 10 (10 p.m.) 504 sec.-ft.
*Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

East Fork of Wallowa River near Joseph, Oreg.

Location.- Staff gage, lat. 45°16', long. 117°13', in SW¼ sec. 29, T. 3 S., R. 45 E., a quarter of a mile upstream from mouth, 1 mile upstream from Wallowa Lake, and 6 miles south of Joseph. Datum of gage is 4,517.69 feet above mean sea level (general adjustment of 1929).

Drainage area.- 9.6 square miles.

Records available.- July 1924 to September 1940.

Average discharge.- 16 years, 11.6 second-feet.

Extremes.- Maximum discharge observed during year, 49 second-feet June 1, 17 (gage height, 1.68 feet); minimum daily, 1.0 second-foot Dec. 25.
1924-40: Maximum discharge, 300 second-feet (estimated), July 25, 1927 (gage height, 3.63 feet, from floodmark); minimum observed, 0.1 second-foot Dec. 7, 1929, Nov. 1, 6, 1935.

Remarks.- Records fair except those for periods of ice effect, which are poor. Practically entire low-water flow diverted 1 mile above station for power development. Gage read twice daily.

Cooperation.- Gage-height record furnished by Inland Power & Light Co.

Rating table. water year 1939-40, except periods of ice effect, (gage height, in feet, and discharge, in second-feet)

0.7	0.4	1.1	10.6	1.5	34
.9	3.7	1.3	21	1.7	51

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	4.0	2.6	4.9	1.6	3.7	3.3	7.5	45	23	5.8	4.6
2	5.5	4.3	2.4	4.9	2.0	4.3	2.9	13	42	22	6.1	4.3
3	6.4	3.1	4.3	4.9	3.3	3.7	2.9	15	38	19	6.1	2.9
4	5.5	2.9	*2.6	3.5	3.5	2.6	3.3	13	36	26	7.9	8.3
5	7.5	4.9	3.5	3.7	4.6	2.4	3.1	12	36	20	5.8	5.5
6	5.3	4.3	2.4	3.7	3.7	3.5	2.6	5.6	36	18	4.6	3.3
7	5.5	4.6	1.6	b3.5	2.9	2.2	4.9	9.8	35	18	4.6	2.9
8	6.7	4.3	6.1	b2.5	2.4	2.6	2.9	12	33	16	3.7	5.2
9	6.1	2.2	7.1	*2.0	2.6	2.0	2.6	16	33	13	4.3	2.4
10	4.3	2.4	7.5	2.9	2.6	b2.5	2.4	20	30	15	4.6	3.3
11	4.3	4.0	6.1	b2.0	3.8	1.6	2.6	a26	30	13	5.8	3.1
12	4.3	4.6	4.9	b2.5	b2.5	1.6	2.9	26	36	12	3.7	3.3
13	2.9	1.6	3.7	a2.5	a2.0	*b2.0	6.1	26	46	12	2.9	4.9
14	4.3	2.4	4.0	a3.0	2.0	3.3	6.7	26	40	14	3.1	4.9
15	6.1	2.4	4.3	a2.5	2.4	2.4	4.9	27	44	12	3.1	7.3
16	3.1	2.9	4.9	a2.5	2.0	2.2	4.9	27	43	9.4	2.9	3.1
17	3.3	2.4	5.8	2.9	1.8	3.3	4.3	28	39	9.0	4.3	2.9
18	3.3	3.7	4.6	2.9	3.7	2.2	6.7	28	36	9.8	5.5	11
19	3.3	4.3	3.3	b2.5	*2.6	2.0	8.3	29	38	9.0	3.3	6.4
20	3.3	3.7	3.7	b2.5	2.9	2.0	8.3	30	40	9.0	2.4	6.7
21	4.9	2.9	3.5	b3.0	2.4	2.0	9.3	28	40	11	2.9	7.1
22	7.2	2.9	3.7	a2.5	1.6	2.6	7.1	34	35	7.9	3.1	7.9
23	3.1	3.7	b3.5	a2.0	b2.0	2.0	7.5	34	32	7.5	2.9	5.5
24	3.7	3.3	b3.0	a2.0	2.4	3.5	6.1	33	28	7.5	3.5	4.6
25	4.9	3.1	b1.0	a2.0	3.3	4.3	6.4	38	30	6.4	6.4	3.5
26	4.6	4.2	a2.0	2.0	2.9	4.6	7.9	34	28	7.9	4.3	1.4
27	4.0	3.1	b3.0	2.6	2.9	4.3	7.1	34	25	8.3	3.1	2.6
28	5.8	3.5	a3.0	3.9	6.1	4.3	7.9	32	24	10	3.1	8.3
29	4.6	3.3	2.9	2.4	3.5	4.0	5.5	36	24	6.4	3.3	8.1
30	4.3	2.9	2.9	2.2	-	4.3	6.1	39	26	5.5	4.3	21
31	3.7	-	4.3	2.2	-	4.6	-	37	-	5.8	5.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	150.8	8.3	2.9	4.86	299
November	101.9	4.9	1.6	3.40	202
December	118.2	7.5	1.0	3.81	234
Calendar year 1939	3,478.3	41	1.0	9.53	6,900
January	89.1	4.9	2.0	2.87	177
February	82.0	6.1	1.6	2.83	163
March	92.6	4.6	1.6	2.99	184
April	157.5	9.3	2.4	5.25	312
May	778.9	39	7.5	25.1	1,540
June	1,048	46	24	34.9	2,080
July	383.4	26	5.5	12.4	760
August	132.9	7.9	2.4	4.29	264
September	166.3	21	1.4	5.54	330
Water year 1939-40	3,301.6	46	1.0	9.02	6,540

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

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Wallowa Falls power-plant tailrace near Joseph, Oreg.

Location.- Staff gage and sharp crested weir, lat. 45°16', long. 117°13', in SE¼ sec. 29, T. 3 S., R. 45 E., a quarter of a mile upstream from point where channel discharges into West Fork of Wallowa River and 6 miles south of Joseph. Datum of gage is 4,624.79 feet above mean sea level (general adjustment of 1929).

Records available.- August 1924 to September 1940.

Average discharge.- 16 years, 7.25 second-feet.

Extremes.- Maximum discharge observed during year, 13.3 second-feet July 23 (gage height, 0.84 foot); no flow at times.
1924-40: Maximum discharge, 17 second-feet Dec. 1, 8, 1930, Jan. 9, 10, 1931; no flow at times.

Remarks.- Records good. Flow regulated by impulse wheel in power house. Water diverted at dam on East Fork of Wallowa River into conduit 1 mile above power house and discharged into West Fork a quarter of a mile downstream. Gage read hourly.

Cooperation.- Gage-height record furnished by Inland Power & Light Co.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	7.6	7.2	7.0	7.2	7.0	7.2	7.4	7.7	8.1	8.5	7.7
2	8.1	7.6	7.2	7.6	7.2	7.2	7.4	7.2	6.6	8.1	8.3	8.1
3	6.8	7.7	6.5	7.6	7.2	6.5	7.2	7.2	7.9	8.7	8.3	8.7
4	8.1	7.2	7.4	7.7	6.5	7.4	7.2	7.2	8.1	7.4	7.2	8.9
5	7.9	6.4	7.2	7.6	7.4	7.4	7.0	6.6	8.1	7.7	8.5	8.9
6	7.9	7.6	7.0	7.4	7.0	7.4	7.2	7.6	7.6	8.1	8.5	8.7
7	7.9	7.4	7.2	6.6	7.2	7.0	6.3	7.6	8.1	7.2	8.7	9.1
8	6.3	7.6	7.7	7.4	7.2	7.0	7.4	7.2	7.9	8.3	8.5	7.7
9	7.9	7.2	7.9	7.6	7.0	7.2	7.4	7.2	6.8	8.5	8.5	9.3
10	7.9	7.4	6.0	7.6	7.2	6.6	7.4	5.8	8.3	8.3	8.5	9.1
11	7.9	6.5	7.7	7.4	6.1	7.2	7.2	0	8.3	8.5	7.4	8.7
12	7.9	6.5	7.4	7.6	7.4	7.2	7.4	0	8.1	8.7	8.7	8.5
13	7.7	7.6	7.9	7.6	7.2	7.0	7.2	0	7.9	8.3	8.7	8.9
14	7.4	7.6	7.6	6.4	7.2	7.0	6.5	0	8.1	6.9	8.7	8.3
15	6.6	7.4	7.7	7.4	7.2	7.2	7.6	0	7.9	8.7	8.9	6.0
16	7.9	7.2	7.7	7.6	7.2	6.6	7.4	0	6.2	8.9	8.7	9.1
17	7.7	7.4	6.9	7.4	7.2	6.5	7.2	0	8.5	8.7	8.3	8.9
18	8.1	7.2	7.7	7.4	6.5	7.0	7.4	0	8.5	8.3	7.4	8.9
19	7.7	6.6	7.7	7.4	7.4	7.2	7.4	0	8.1	8.9	9.1	8.7
20	7.6	7.4	7.7	7.4	7.2	7.0	7.6	0	8.3	8.5	8.7	8.7
21	7.6	7.4	7.6	7.0	7.2	7.0	6.2	0	8.1	7.2	8.7	8.3
22	5.1	7.4	7.6	7.4	7.2	7.0	7.6	4.4	7.9	8.9	8.5	7.4
23	7.7	6.6	7.6	7.6	7.0	7.0	7.7	7.4	7.0	9.1	8.7	8.7
24	7.6	7.2	6.3	7.4	7.2	6.3	7.6	7.6	8.1	8.9	8.9	8.5
25	7.6	7.2	7.2	7.4	6.6	7.4	7.2	7.4	8.1	8.7	7.2	8.7
26	7.6	6.1	7.4	7.2	7.2	7.4	7.0	6.6	7.6	8.3	8.9	9.1
27	7.7	7.4	7.6	7.6	7.2	7.4	7.2	7.7	8.3	8.3	8.9	8.1
28	7.7	7.2	7.6	6.1	7.4	7.2	6.6	7.7	8.5	7.0	8.9	8.1
29	6.6	7.2	7.6	7.2	7.2	7.2	7.4	7.9	7.1	7.9	8.7	6.9
30	7.9	7.4	7.6	7.2	-	7.2	7.2	7.0	7.2	8.7	8.7	8.9
31	7.7	-	7.0	7.2	-	6.5	-	7.9	-	8.9	8.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	232.1	8.1	5.1	7.49	460
November	216.2	7.7	6.1	7.21	429
December	228.3	7.9	6.0	7.36	453
Calendar year 1939	2,537.6	8.3	4.0	6.95	5,030
January	227.0	7.7	6.1	7.32	450
February	205.9	7.4	6.1	7.10	408
March	218.2	7.4	6.3	7.04	433
April	216.3	7.7	6.2	7.21	429
May	142.6	7.9	0	4.60	283
June	234.9	8.5	6.2	7.83	466
July	256.7	9.1	6.9	8.28	509
August	262.9	9.1	7.2	8.48	521
September	253.6	9.3	6.0	8.45	503
Water year 1939-40	2,694.7	9.3	0	7.36	5,340

Hurricane Creek near Joseph, Oreg.

Location.- Water-stage recorder, lat. 45°20', long. 117°18', in NE¼ sec. 3, T. 3 S., R. 44 E., just upstream from intake of Moonshine ditch and 3⅛ miles southwest of Joseph.

Drainage area.- 31 square miles.

Records available.- April to September 1915, April 1924 to September 1940.

Average discharge.- 13 years (1927-40), 62.9 second-feet.

Extremes.- Maximum discharge during year, 355 second-feet June 12 (gage height, 2.70 feet); minimum, 14 second-feet Dec. 7, Feb. 21.
1915, 1924-40: Maximum discharge, 716 second-feet May 26, 1928 (gage height, 2.65 feet, site and datum then in use); minimum, 3.4 second-feet Feb. 10, 1938 (gage height, 0.91 foot).

Remarks.- Records good except those for periods of shifting control, Dec. 8 to Mar. 24, Apr. 13-23, which are fair. No diversion above station.

Rating tables, water year 1939-40 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 8 to Mar. 24, Apr. 13-23)

Oct. 1 to Apr. 23				Apr. 24 to Sept. 30			
1.3	15	1.8	60	1.3	22	2.0	103
1.4	21.5	1.9	75	1.4	28	2.2	151
1.6	37			1.6	44.5	2.4	219
				1.8	68.5	2.6	305

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	24	17	26	20	20	29	61	269	99	42	26
2	23	24	17	27	20	19	28	82	240	97	40	25
3	23	24	16	26	20	18	27	101	223	95	38	26
4	23	22	16	25	20	19	28	94	212	99	38	32
5	33	21	15	24	20	19	28	82	208	94	37	30
6	28	21	15	23	24	18	27	78	201	84	36	26
7	25	23	14	19	21	19	27	78	180	78	36	26
8	24	22	20	21	20	19	27	88	146	73	35	26
9	24	21	27	24	20	18	27	116	146	72	35	26
10	23	21	32	23	20	18	27	180	177	68	34	26
11	22	21	27	18	20	18	27	227	227	66	34	26
12	22	20	22	18	17	17	30	201	282	66	33	26
13	22	20	22	18	18	17	37	177	292	65	33	30
14	21	20	22	18	18	18	48	170	248	61	32	29
15	21	20	22	18	18	18	51	167	219	58	32	27
16	21	19	24	21	18	18	48	170	215	58	31	30
17	21	18	22	22	19	18	48	173	219	59	30	29
18	22	18	21	22	18	18	56	173	215	59	30	42
19	21	18	21	19	18	18	64	190	248	57	30	36
20	20	18	22	19	16	18	70	205	227	54	30	47
21	21	18	20	19	16	20	66	219	173	52	30	42
22	21	18	20	20	18	21	66	252	146	50	29	36
23	21	18	18	20	17	22	69	278	133	49	28	33
24	22	17	18	20	18	24	65	296	133	48	28	32
25	21	17	16	20	18	27	63	305	141	47	27	30
26	21	17	17	20	18	30	65	264	133	50	27	30
27	22	17	18	20	19	30	65	227	116	52	27	30
28	29	17	19	20	20	28	65	219	103	47	27	34
29	27	17	23	20	22	28	62	235	101	44	27	34
30	25	17	24	20	-	27	59	252	107	43	27	79
31	24	-	25	20	-	29	-	260	-	43	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	715	33	20	23.1	0.745	0.86	1,420
November	588	24	17	19.6	.632	.71	1,170
December	632	32	14	20.4	.658	.76	1,250
Calendar year 1939	20,299.3	278	7.3	55.6	1.79	24.36	40,260
January	650	27	18	21.0	.677	.78	1,290
February	551	24	16	19.0	.613	.66	1,090
March	651	30	17	21.0	.677	.78	1,290
April	1,399	70	27	46.6	1.50	1.68	2,770
May	5,620	305	61	181	5.84	6.74	11,150
June	5,680	292	101	189	6.10	6.81	11,270
July	1,987	99	43	64.1	2.07	2.38	3,940
August	990	42	27	31.9	1.03	1.19	1,960
September	971	79	25	32.4	1.05	1.16	1,930
Water year 1939-40	20,434	305	14	55.8	1.80	24.51	40,530

Peak discharge.- May 10 (12 p.m.) 256 sec.-ft.; June 12 (8 p.m.) 355 sec.-ft.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Lostine River near Lostine, Oreg.

Location.- Water-stage recorder, lat. 45°26', long. 117°26', in NW¼ sec. 34, T. 1 S., R. 45 E., 3½ miles south of Lostine and 10 miles upstream from mouth.

Records available.- August 1912 to March 1914, April to September 1915, July 1925 to September 1940.

Average discharge.- 13 years (1912-13, 1928-40), 171 second-feet.

Extremes.- Maximum discharge during year, 1,240 second-feet May 25 (gage height, 5.41 feet); minimum, 22 second-feet Dec. 6, 7 (gage height, 0.65 foot).
1912-14, 1915, 1925-40: Maximum discharge, 2,540 second-feet May 27, 1913; minimum, 10 second-feet Nov. 28-30, 1936.

Remarks.- Records good except those for periods of ice effect, which are poor. No large diversions above station. Flow regulated slightly by Minam Lake Reservoir.

Rating tables, water year 1939-40, except periods of ice effect, (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 13				Apr. 14 to Sept. 30					
0.6	19.5	1.6	111	0.6	19.5	1.6	107	3.4	459
.8	31	1.8	142	.8	31	1.9	147	3.8	584
1.0	44			1.0	44	2.2	192	4.2	724
1.2	61			1.2	61	2.6	266	4.6	885
1.4	83			1.4	83	3.0	352	5.0	1,060

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	38	24	67	37	60	123	174	862	213	58	29
2	27	36	24	71	41	61	114	240	792	204	56	27
3	31	36	24	69	40	56	108	322	695	194	52	29
4	31	31	24	64	40	55	101	303	645	195	50	36
5	55	30	23	59	40	53	101	264	624	194	47	43
6	45	33	22	54	66	50	96	236	604	168	46	34
7	36	36	22	46	58	50	93	233	536	148	43	29
8	32	39	34	56	53	58	91	258	409	139	40	26
9	30	33	55	54	51	54	97	362	394	133	39	25
10	30	31	82	50	58	55	91	565	486	128	38	26
11	29	32	57	46	55	53	91	792	634	120	36	25
12	28	32	43	46	47	51	96	770	836	115	36	24
13	27	30	42	44	52	49	136	607	979	114	35	32
14	27	29	42	b42	50	50	181	562	762	106	43	39
15	27	27	50	*b39	46	50	189	546	634	100	45	32
16	27	28	56	b38	44	53	170	546	597	97	45	31
17	27	26	54	b37	45	53	162	555	587	110	43	32
18	27	27	45	b36	43	52	192	558	574	103	42	62
19	26	26	*46	36	42	51	220	617	531	102	40	56
20	26	27	44	b36	*42	53	248	699	600	91	40	62
21	26	26	43	37	42	55	218	717	450	83	39	67
22	26	26	40	42	41	58	211	812	359	76	38	52
23	25	25	38	39	38	62	218	946	320	71	37	48
24	27	26	38	38	38	71	206	1,030	303	68	36	45
25	29	24	b35	38	42	90	195	1,060	322	64	39	42
26	28	25	32	39	50	116	199	854	309	68	35	40
27	29	26	b31	40	52	140	197	702	258	99	33	39
28	52	24	32	40	61	128	202	656	223	78	33	55
29	50	23	36	42	67	117	190	702	218	68	32	58
30	42	24	48	43	-	111	176	751	233	63	30	120
31	41	-	56	41	-	116	-	816	-	61	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	985	55	22	31.8	1,950
November	876	39	23	29.2	1,740
December	1,242	82	22	40.1	2,460
Calendar year 1939	52,529	1,040	19	144	104,200
January	1,429	71	36	46.1	2,830
February	1,381	67	37	47.6	2,740
March	2,131	148	49	68.7	4,230
April	4,712	248	91	157	9,350
May	18,255	1,060	174	589	36,210
June	15,776	979	218	526	31,290
July	3,573	213	61	115	7,090
August	1,255	58	29	40.5	2,490
September	1,265	120	24	42.2	2,510
Water year 1939-40	52,880	1,060	22	144	104,900

Peak discharge.- May 12 (1 a.m.) 916 sec.-ft.; May 25 (1 a.m.) 1,240 sec.-ft.; June 13 (2 a.m.) 1,220 sec.-ft.

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

400457

9-232 February 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

Bear Creek near Wallowa, Oreg.

Location.- Water-stage recorder, lat. 45°32', long. 117°33', in NE¼ sec. 34, T. 1 N., R. 42 E., at bridge 4½ miles southwest of Wallowa.

Records available.- April to September 1915, April 1931 to September 1940. April 1924 to November 1931 at site 1 mile upstream and above intakes of two irrigation ditches with a combined capacity of about 3 second-feet.

Extremes.- Maximum discharge during year, 747 second-feet May 10 (gage height, 2.72 feet); minimum, 5.7 second-feet Sept. 1, 2 (gage height, 0.56 foot).
1915, 1924-40: Maximum discharge, 1,620 second-feet Apr. 22, 1936 (gage height, 3.82 feet, from floodmarks), from rating curve extended above 950 second-feet; minimum, 3 second-feet Jan. 20, Feb. 1, 1937.

Remarks.- Records fair. Small diversions above station for irrigation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	16	11	77	b29	129	175	155	422	48	13	5.7
2	9.1	16	11	88	b32	124	168	248	386	45	13	5.7
3	9.1	16	10	93	b35	113	152	325	336	43	12	6.0
4	9.5	15	10	90	36	103	138	302	302	40	11	9.7
5	19	16	11	81	36	93	127	239	287	39	11	10
6	14	16	10	72	84	81	118	204	274	32	10	7.6
7	12	16	10	63	101	76	a117	196	252	29	9.7	6.8
8	11	16	21	60	93	83	116	212	204	26	9.3	6.8
9	11	15	26	56	88	81	125	311	186	25	9.3	6.8
10	10	15	32	52	97	81	120	479	219	22	8.8	7.2
11	10	15	30	40	90	74	120	598	265	2[illegible]	8.8	6.8
12	9.9	15	27	b38	79	70	135	533	320	20	8.4	6.8
13	9.9	15	25	b37	73	64	208	453	302	19	8.0	9.7
14	9.9	14	27	b35	68	60	287	422	252	18	8.0	11
15	10	14	34	*b34	60	60	265	404	216	18	7.6	9.3
16	10	16	46	35	*55	64	219	392	200	20	7.6	8.8
17	10	18	52	33	52	67	196	380	186	20	7.2	8.8
18	10	15	47	31	48	70	231	369	172	20	7.2	14
19	10	16	*44	b30	44	72	265	404	168	20	6.8	8.8
20	11	b14	43	b32	40	73	316	428	146	19	6.5	12
21	11	*b13	40	b33	40	81	248	428	116	17	6.5	12
22	11	12	37	b34	40	93	239	446	97	15	6.5	11
23	11	12	34	33	37	103	248	492	85	15	6.2	10
24	13	13	34	b32	36	122	208	540	78	14	6.2	10
25	13	13	b29	b29	42	147	192	554	75	13	6.2	10
26	13	11	b29	b28	59	180	192	422	68	14	6.2	9.7
27	13	11	b30	27	88	278	189	364	60	18	6.0	10
28	18	10	b32	24	113	248	189	342	52	16	6.2	17
29	16	10	b35	25	141	212	172	364	50	15	6.0	18
30	16	11	b40	28	-	182	155	392	52	14	6.0	28
31	16	-	54	32	-	172	-	410	-	14	6.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	363.6	19	7.2	11.7	721
November	425	18	10	14.2	843
December	921	54	10	29.7	1,830
Calendar year 1939	31,359.6	547	7	85.9	62,200
January	1,402	93	24	45.2	2,780
February	1,836	141	29	63.3	3,640
March	3,456	278	60	111	6,850
April	5,630	316	116	188	11,170
May	11,808	598	155	381	23,420
June	5,828	422	50	194	11,560
July	709	48	13	22.9	1,410
August	251.2	13	6.0	8.10	498
September	304.0	28	5.7	10.1	603
Water year 1939-40	32,933.8	598	5.7	90.0	65,320

Peak discharge.- Apr. 20 (2:30 a.m.) 358 sec.-ft.; May 10 (8:30 p.m.) 747 sec.-ft.; May 25 (2 a.m.) 650 sec.-ft.; June 1 (8 p.m.) 486 sec.-ft.

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

9-232 February 1936

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Asotin Creek near Asotin, Wash.

Location.- Staff gage, lat. 46°20', long. 117°12', in sec. 20, T. 10 N., R. 45 E., half a mile upstream from Washington Water Power Co.'s diversion for water supply and irrigation, 4 miles upstream from George Creek, and 8 miles west of Asotin.

Drainage area.- 171 square miles.

Records available.- August 1928 to September 1940. March 1904 to November 1906 and August 1910 to October 1911, at practically same site.

Average discharge.- 12 years (1928-40), 57.0 second-feet.

Extremes.- Maximum discharge observed during year, 236 second-feet Feb. 29 (gage height, 1.82 feet); minimum, not determined, occurred during period of ice effect.
1904-6, 1910-11, 1928-40: Maximum discharge observed, 1,180 second-feet Apr. 15, 1904 (gage height, 4.3 feet, datum then in use; minimum observed, 16 second-feet Jan. 5, 1937.

Remarks.- Records good except those for periods of shifting control, Oct. 26 to Feb. 6, Feb. 22-27, July 31 to Sept. 30, which are fair, and those for period of ice effect, which are poor. Large part of low flow diverted for irrigation. No regulation. Gage read twice daily.

Cooperation.- Gage-height record and results of two discharge measurements furnished by Washington Water Power Co.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	31	30	35	41	150	106	81	62	28	27	23
2	29	31	30	44	40	123	110	85	61	28	28	23
3	29	30	29	45	39	106	106	94	59	28	26	24
4	29	30	29	44	40	96	97	94	57	26	25	31
5	33	31	29	42	40	88	105	91	52	28	25	34
6	31	31	29	b40	65	81	102	87	51	26	26	32
7	31	32	29	b40	99	74	97	84	51	25	25	29
8	31	32	31	b40	84	77	97	81	51	26	25	28
9	31	31	39	38	73	76	97	85	49	24	25	27
10	29	31	43	b30	72	74	93	94	46	25	26	26
11	30	31	36	b25	68	68	88	102	44	26	26	26
12	29	31	32	b20	64	65	85	113	42	28	26	27
13	30	32	32	b20	60	62	91	105	38	26	24	31
14	29	31	30	b25	60	58	103	99	38	26	24	35
15	29	31	34	b25	55	56	100	93	38	27	24	33
16	30	32	45	b25	51	55	94	88	34	27	24	33
17	31	31	54	b18	49	56	88	85	34	30	24	37
18	31	30	45	b19	48	55	90	80	34	29	24	48
19	30	30	40	b20	46	57	91	80	32	28	25	35
20	31	30	39	b25	44	56	91	80	30	28	26	32
21	30	30	38	b17	42	58	87	77	31	28	24	46
22	30	30	b35	b17	43	57	84	77	32	26	23	33
23	31	30	b30	b17	41	61	87	74	32	25	23	32
24	31	30	b30	b20	40	63	87	74	32	24	21	29
25	31	31	b25	b25	38	80	85	87	30	23	22	29
26	32	30	b25	b30	52	94	94	77	29	26	22	27
27	32	30	b25	33	82	118	91	71	28	29	23	30
28	32	30	b25	34	128	108	88	67	28	31	24	34
29	34	30	32	38	215	100	87	65	28	29	24	32
30	32	30	34	42	-	93	82	62	28	28	24	35
31	31	-	33	41	-	91	-	63	-	28	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	944	34	25	30.5	1,870
November	920	32	30	30.7	1,820
December	1,037	54	25	33.5	2,060
Calendar year 1939	18,781	244	19	51.5	37,260
January	934	45	17	30.1	1,850
February	1,819	215	38	62.7	3,610
March	2,456	150	55	79.2	4,870
April	2,803	110	82	93.4	5,560
May	2,595	113	62	83.7	5,150
June	1,201	62	28	40.0	2,380
July	836	31	23	27.0	1,660
August	758	28	21	24.5	1,500
September	941	48	23	31.4	1,870
Water year 1939-40	17,244	215	17	47.1	34,200

b Stage-discharge relation affected by ice.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Selway River near Lowell, Idaho

Location.- Water-stage recorder, lat. 46°05', long. 115°31', in sec. 25, T. 32 N., R. 7 E., a quarter of a mile upstream from O'Hara Creek and 7 miles upstream from Lowell post office.

Drainage area.- 1,510 square miles.

Records available.- April 1911 to September 1912 (gage heights or fragmentary discharge only); October 1929 to September 1940.

Average discharge.- 11 years (1929-40), 3,205 second-feet.

Extremes.- Maximum discharge during year, 20,400 second-feet May 12 (gage height, 10.13 feet); minimum, 345 second-feet Jan. 19 (gage height, 2.40 feet); minimum daily, 356 second-feet Sept. 2.
1929-40: Maximum discharge, 33,800 second-feet June 14, 1933 (gage height, 13.17 feet); minimum, probably less than 100 second-feet Jan. 8, 1937, during period of ice effect.

Remarks.- Records good. No diversion.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	413	635	539	1,640	963	2,440	6,170	7,080	11,800	1,730	674	362
2	420	620	553	1,620	992	2,440	6,170	8,380	11,000	1,760	643	356
3	444	597	567	1,550	992	2,370	5,440	11,000	9,650	1,620	612	420
4	450	582	539	1,410	1,040	2,150	4,870	11,400	8,690	1,570	589	682
5	723	539	490	1,330	1,030	2,010	4,760	10,300	9,650	1,500	567	800
6	843	490	463	1,200	1,350	1,880	4,440	9,000	7,940	1,400	553	643
7	699	691	517	1,040	1,640	1,740	4,120	8,380	7,500	1,300	531	531
8	589	870	497	916	1,420	2,150	4,330	8,380	7,220	1,230	510	470
9	546	765	852	1,070	1,310	2,080	5,100	9,650	6,300	1,180	504	444
10	517	643	1,430	1,110	1,570	1,940	4,870	12,900	5,800	1,170	484	432
11	510	582	1,340	934	1,660	1,810	4,650	17,800	5,920	1,100	470	426
12	504	597	1,110	732	1,430	1,710	4,650	18,600	6,420	1,030	463	463
13	497	560	870	852	1,260	1,570	5,560	16,100	6,550	982	450	539
14	490	560	843	944	1,210	1,490	7,640	14,900	5,920	944	444	628
15	497	531	963	898	1,140	1,490	8,690	13,700	5,210	907	438	589
16	553	463	1,330	870	1,060	1,570	7,500	13,700	4,760	916	432	510
17	560	426	1,760	963	1,010	1,760	6,950	13,300	4,330	898	432	517
18	524	426	1,540	732	1,060	1,800	7,640	12,900	4,120	907	426	517
19	504	477	1,190	432	1,050	1,810	8,380	13,300	3,820	898	407	539
20	504	517	1,170	575	1,030	1,810	9,980	14,100	3,820	861	401	531
21	504	490	1,210	723	972	1,940	9,000	13,300	3,360	825	389	539
22	497	497	1,100	808	963	2,220	7,940	13,300	3,010	791	378	567
23	490	539	954	982	982	2,520	8,080	14,500	2,680	740	378	539
24	477	504	898	852	954	2,920	7,790	15,700	2,440	707	378	497
25	504	477	861	791	1,020	3,540	7,500	15,300	2,300	682	407	477
26	539	484	808	843	1,420	4,540	7,500	13,300	2,150	661	438	463
27	553	531	808	1,000	1,680	5,680	8,080	11,400	2,010	861	413	510
28	707	567	658	1,080	2,010	5,320	8,080	10,700	1,940	916	395	1,210
29	963	531	682	972	2,440	4,760	7,790	10,700	1,780	808	389	1,400
30	834	504	1,220	934	-	4,440	7,080	11,400	1,690	732	378	1,410
31	674	-	1,360	925	-	4,760	-	11,800	-	699	367	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	17,529	963	413	565	0.374	0.43	34,770
November	16,695	870	426	556	.368	.41	33,110
December	29,122	1,760	463	939	.622	.72	57,760
Calendar year 1939	1,138,965	22,700	413	3,120	2.07	28.06	2,259,000
January	30,728	1,640	432	991	.656	.76	60,950
February	36,658	2,440	954	1,264	.837	.90	72,710
March	80,660	5,680	1,490	2,602	1.72	1.98	160,000
April	200,750	9,980	4,120	6,692	4.43	4.94	398,200
May	386,270	18,600	7,080	12,460	8.25	9.51	766,200
June	159,780	11,800	1,690	5,326	3.53	3.94	316,900
July	32,355	1,760	682	1,044	.691	.80	64,180
August	14,340	674	367	463	.307	.35	28,440
September	18,011	1,410	356	600	.397	.44	35,720
Water year 1939-40	1,022,898	18,600	356	2,795	1.85	25.18	2,029,000

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Clearwater River at Kamiah, Idaho

Location.- Water-stage recorder, lat. 46°14', long. 116°01', in sec. 1, T. 37 N., R. 3 E., 300 feet upstream from highway bridge at Kamiah and 6 miles downstream from South Fork of Clearwater River.

Drainage area.- 4,850 square miles.

Records available.- August 1910 to September 1940.

Average discharge.- 30 years, 8,003 second-feet.

Extremes.- Maximum discharge during year, 37,100 second-feet May 12 (gage height, 12.06 feet); minimum daily, 680 second-feet Sept. 2.
1910-40: Maximum discharge observed, 81,400 second-feet June 10, 1933 (gage height, 16.53 feet), from rating curve extended above 70,000 second-feet; minimum discharge, probably less than 200 second-feet Jan. 8, 1937, during period of ice effect.

Remarks.- Records excellent except those for Aug. 11 to Sept. 5, which are good. Practically no diversion or regulation above station.

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

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method Oct. 1 to Feb. 10)

2.7	645	4.2	2,630	6.0	6,720	9.0	18,100
3.0	960	4.6	3,310	6.5	8,280	10.0	23,440
3.4	1,450	5.0	4,090	7.0	9,970	11.0	29,550
3.8	2,010	5.5	5,290	8.0	13,720	12.1	37,120

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	816	1,350	1,080	4,420	1,830	7,460	15,800	15,800	20,100	3,130	1,400	690
2	840	1,270	1,150	4,420	1,750	8,610	16,200	17,600	20,600	3,310	1,320	660
3	927	1,230	1,230	4,420	1,850	7,800	14,100	22,900	18,100	3,130	1,240	700
4	972	1,220	1,220	3,980	2,190	6,720	12,500	23,400	16,200	2,880	1,200	1,000
5	1,180	1,160	1,110	3,780	2,550	5,980	12,200	22,300	17,200	2,790	1,160	1,400
6	2,080	1,060	1,020	3,310	3,880	5,290	11,800	20,100	15,000	2,630	1,120	1,380
7	1,710	1,090	1,040	2,880	5,030	4,780	11,000	18,100	13,700	2,470	1,100	1,170
8	1,350	1,710	1,090	2,390	4,200	5,560	11,400	17,600	14,100	2,310	1,060	1,020
9	1,170	1,800	1,350	2,390	3,680	5,980	13,700	19,100	12,500	2,240	1,030	927
10	1,090	1,520	2,710	2,550	4,780	5,160	13,700	24,000	11,000	2,200	994	883
11	1,040	1,310	3,040	2,470	5,290	4,660	12,900	32,200	10,700	2,130	950	861
12	1,030	1,220	2,630	1,900	4,310	4,310	12,500	35,000	11,400	2,000	900	872
13	1,030	1,220	2,060	1,900	3,580	3,980	13,700	30,200	11,800	1,890	870	994
14	1,010	1,150	1,780	2,100	3,400	3,680	16,700	27,600	11,000	1,800	850	1,320
15	1,010	1,120	1,920	2,080	3,130	3,580	19,600	25,800	9,620	1,750	830	1,330
16	1,120	1,020	2,550	2,010	2,880	3,780	17,600	25,200	8,610	1,730	820	1,160
17	1,230	872	3,680	2,070	2,710	4,420	15,800	24,000	8,120	1,780	810	1,050
18	1,180	829	3,880	1,980	3,130	4,420	16,200	23,400	7,480	1,820	800	1,090
19	1,100	672	2,880	1,230	3,220	4,420	18,600	23,400	7,020	1,820	790	1,120
20	1,100	983	2,550	1,220	2,960	4,540	21,200	25,200	6,870	1,860	770	1,110
21	1,100	994	2,710	1,370	2,790	4,780	20,600	24,000	6,280	1,710	750	1,120
22	1,090	1,030	2,550	1,360	2,630	5,160	18,100	24,000	5,560	1,590	740	1,160
23	1,040	1,080	2,200	1,620	2,630	5,840	18,100	25,200	5,030	1,500	730	1,170
24	1,030	1,090	1,890	1,730	2,470	7,020	17,600	27,600	4,660	1,410	720	1,080
25	1,050	994	1,860	1,490	2,550	7,960	16,700	28,300	4,310	1,350	710	994
26	1,110	972	1,780	1,520	4,310	11,000	16,700	24,600	3,980	1,320	730	949
27	1,160	994	1,760	1,880	5,290	13,700	17,600	20,600	3,780	1,590	750	949
28	1,240	1,110	1,590	2,120	5,980	13,700	17,600	19,100	3,580	1,950	730	1,640
29	1,800	1,150	1,440	2,020	7,180	12,500	17,600	18,100	3,400	1,790	720	2,630
30	1,940	1,050	2,020	1,920	-	11,400	15,600	19,600	3,220	1,550	710	2,630
31	1,530	-	3,040	1,900	-	11,800	-	20,600	-	1,440	700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	37,077	2,080	818	1,196	0.247	0.28	73,540
November	34,470	1,800	829	1,149	.237	.26	68,370
December	62,810	3,880	1,020	2,026	.418	.48	124,600
Calendar year 1939	2,254,212	44,000	818	6,176	1.27	17.27	4,471,000
January	72,430	4,420	1,220	2,336	.482	.56	143,700
February	102,180	7,180	1,750	3,523	.726	.78	202,700
March	210,010	13,700	3,580	6,775	1.40	1.61	416,500
April	473,600	21,200	11,000	15,790	3.26	3.64	939,400
May	724,600	35,000	15,800	23,370	4.82	5.56	1,437,000
June	294,920	20,600	3,220	9,831	2.03	2.26	585,000
July	62,870	3,310	1,320	2,028	.418	.48	124,700
August	28,004	1,400	700	903	.186	.21	55,550
September	35,079	2,630	680	1,169	241	.27	69,580
Water year 1939-40	2,138,050	35,000	680	5,842	1.20	16.39	4,241,000

Note.- Doubtful gage-height record Aug. 11 to Sept. 5; discharge computed on basis of records for other stations in Clearwater River Basin.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Clearwater River at Spalding, Idaho

Location.- Water-stage recorder, lat. 46°25', long. 116°51', in lot 22, sec. 22, T. 36 N., R. 4 W., a quarter of a mile downstream from Lapwai Creek and three-eighths of a mile northwest of Spalding post office.

Drainage area.- 9,570 square miles.

Records available.- March 1926 to September 1940.

Average discharge.- 14 years, 14,170 second-feet.

Extremes.- Maximum discharge during year, 56,200 second-feet May 12 (gage height, 12.86 feet); minimum, 1,470 second-feet Sept. 4 (gage height, 2.07 feet).
1926-40: Maximum discharge, 172,000 second-feet Dec. 23, 1933 (gage height, 23.19 feet), from rating curve extended above 100,000 second-feet by logarithmic plotting; minimum, probably less than 500 second-feet Jan. 9, 1937, during period of ice effect.
Maximum stage known, 25.6 feet Jan. 5, 1928 (site and datum then in use), during severe ice jam.

Remarks.- Records excellent. Small diversions from lower tributaries; no regulation.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

2.0	1,390	5.0	7,710	8.0	20,350
2.5	2,040	5.5	9,360	8.5	23,150
3.0	2,920	6.0	11,210	9.5	29,500
3.5	3,930	6.5	13,230	11.0	40,480
4.0	5,050	7.0	15,420	13.0	57,060
4.5	6,300	7.5	17,790		

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,720	2,730	2,040	8,340	4,040	26,800	33,000	28,200	29,500	5,780	2,920	1,550
2	1,750	2,460	2,280	10,400	3,820	26,800	36,000	30,200	30,900	5,780	2,820	1,510
3	1,750	2,370	2,550	11,200	3,930	26,800	31,600	35,200	28,200	5,780	2,640	1,500
4	1,830	2,280	2,640	10,400	4,260	21,400	27,500	39,700	25,000	5,410	2,550	1,520
5	1,950	2,280	2,460	9,010	6,040	18,800	25,600	39,000	24,300	5,170	2,370	1,880
6	3,110	2,200	2,200	8,020	13,500	16,800	25,600	36,000	23,200	4,900	2,370	3,110
7	3,720	2,120	2,040	6,840	18,300	15,400	23,200	32,300	20,900	4,700	2,280	2,730
8	2,820	2,820	2,200	5,910	14,500	19,300	23,200	30,200	20,900	4,370	2,200	2,200
9	2,280	3,720	2,730	5,290	12,400	20,400	27,500	31,600	19,800	4,230	2,120	2,010
10	2,120	3,310	5,410	5,410	15,400	16,800	31,600	36,000	17,800	4,040	2,040	1,900
11	1,960	2,820	7,120	5,410	16,800	15,000	28,800	46,800	16,800	4,040	2,000	1,810
12	1,900	2,460	6,040	4,480	13,200	13,200	26,200	53,500	16,800	3,830	1,950	1,760
13	1,880	2,370	4,820	4,040	10,800	12,000	26,200	49,300	17,300	3,630	1,920	1,780
14	1,860	2,370	3,930	4,260	9,360	10,400	30,200	44,400	16,800	3,510	1,880	2,010
15	1,890	2,280	3,820	4,480	8,670	10,100	35,200	40,500	15,400	3,410	1,830	2,550
16	1,940	2,200	5,910	4,260	7,560	10,400	33,800	39,000	13,600	3,310	1,820	2,460
17	2,200	2,020	10,100	4,260	7,120	13,600	30,200	37,400	12,800	3,310	1,810	2,200
18	2,370	1,830	11,200	4,370	9,010	13,600	29,500	36,700	12,000	3,510	1,790	2,280
19	2,280	1,780	8,020	3,510	10,100	12,800	32,300	36,700	11,200	3,510	1,760	2,370
20	2,200	1,860	6,300	2,640	9,360	12,400	35,200	38,200	10,800	3,410	1,740	2,370
21	2,370	2,010	6,300	2,550	8,340	12,400	39,700	38,200	10,400	3,410	1,680	2,370
22	2,280	1,980	6,170	3,110	7,560	13,200	33,800	37,400	9,720	3,210	1,660	2,200
23	2,200	2,010	5,410	3,110	7,260	14,100	31,600	28,200	8,670	3,020	1,620	2,280
24	2,120	2,200	4,590	3,620	6,700	15,400	32,300	40,500	e8,020	2,920	1,610	2,280
25	2,120	2,120	4,040	3,510	7,410	17,300	30,900	42,000	7,410	2,730	1,600	2,040
26	2,200	1,950	4,040	3,110	17,300	22,000	30,200	39,000	7,120	2,640	1,580	1,920
27	2,280	1,900	3,930	3,620	22,000	28,200	30,200	33,000	6,700	3,020	1,620	1,880
28	2,280	1,980	3,620	4,260	25,600	31,600	30,200	30,200	6,440	4,820	1,620	2,280
29	2,920	2,120	3,110	4,700	30,900	28,800	30,900	28,200	6,170	4,490	1,600	4,590
30	3,930	2,120	3,410	4,480	-	26,800	29,500	28,800	5,910	3,510	1,610	4,820
31	3,410	-	5,660	4,260	-	25,600	-	30,200	-	3,110	1,600	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	71,640	3,930	1,720	2,311	0.241	0.28	142,100
November	68,670	3,720	1,780	2,289	.239	.27	136,200
December	144,090	11,200	2,040	4,648	.486	.56	285,800
Calendar year 1939	4,135,500	73,400	1,710	11,330	1.18	16.09	8,202,000
January	162,860	11,200	2,550	5,254	.549	.63	323,000
February	331,240	30,900	3,820	11,420	1.19	1.28	657,000
March	568,700	31,600	10,100	18,350	1.92	2.21	1,128,000
April	911,700	39,700	23,200	30,390	3.18	3.55	1,808,000
May	1,146,600	53,500	28,200	36,990	3.87	4.46	2,274,000
June	460,560	30,900	5,910	15,350	1.60	1.78	913,500
July	122,550	5,780	2,640	3,953	.413	.48	243,100
August	60,610	2,920	1,580	1,955	.204	.24	120,200
September	68,160	4,820	1,500	2,272	.237	.26	135,200
Water year 1939-40	4,117,380	53,500	1,500	11,250	1.18	16.00	8,166,000

e Intake action faulty; discharge computed from partly estimated gage heights.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Lochsa River near Lowell, Idaho

Location.- Water-stage recorder, lat. 46°09', long. 115°35', in SW¼SE¼ sec. 33, T. 33 N., R. 7 E., three-quarters of a mile upstream from Lowell post office, seven-eighths of a mile upstream from mouth, and 1¼ miles downstream from Pete King Creek.

Drainage area.- 1,180 square miles.

Records available.- November 1910 to August 1912 (gage height only), October 1929 to September 1940.

Average discharge.- 11 years (1929-40), 2,466 second-feet.

Extremes.- Maximum discharge during year, 12,700 second-feet May 12 (gage height, 7.85 feet); minimum, 245 second-feet Sept. 2 (gage height, 1.18 feet).
1929-40: Maximum discharge, 34,800 second-feet June 10, 1933 (gage height, 13.44 feet), from rating curve extended above 25,000 second-feet; minimum, probably less than 100 second-feet Jan. 8, 1937, during period of ice effect.

Remarks.- Records excellent. No diversion.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	277	454	379	1,870	705	2,680	5,350	6,030	7,490	1,200	487	253
2	291	434	454	1,780	689	2,680	5,460	7,240	7,740	1,290	460	249
3	317	422	474	1,680	705	2,520	4,820	8,770	6,750	1,160	441	258
4	317	409	434	1,500	890	2,310	4,310	8,770	5,920	1,080	422	323
5	610	385	379	1,370	899	2,170	4,310	7,990	6,510	1,000	409	415
6	633	344	344	1,210	1,380	1,900	4,020	7,240	5,350	937	397	397
7	480	441	367	1,040	1,630	1,800	3,840	6,750	5,020	880	385	350
8	403	641	397	956	1,370	2,240	4,220	6,750	5,130	835	373	328
9	367	657	756	946	1,270	2,030	4,920	7,740	4,410	808	355	301
10	350	522	1,360	1,020	1,960	1,870	4,710	9,580	3,930	799	344	287
11	339	454	1,220	853	1,820	1,730	4,510	12,400	3,930	764	339	282
12	339	441	995	756	1,470	1,650	4,510	12,100	4,120	714	333	282
13	339	422	739	808	1,270	1,500	5,130	11,000	4,120	681	323	333
14	333	397	697	844	1,180	1,410	6,510	9,850	3,840	649	317	428
15	344	379	890	773	1,080	1,410	6,990	9,310	3,400	625	306	409
16	448	333	1,360	773	985	1,510	6,390	9,040	3,070	641	306	361
17	448	312	1,900	808	956	1,720	5,920	8,770	2,830	689	301	350
18	415	306	1,600	641	1,000	1,700	6,750	8,770	2,680	665	296	367
19	403	323	1,180	494	1,020	1,720	7,490	8,770	2,520	618	287	373
20	415	355	1,150	550	985	1,760	8,510	9,310	2,450	588	282	361
21	409	355	1,160	515	918	1,890	7,740	9,040	2,240	580	272	344
22	391	350	1,020	610	918	2,100	6,750	9,040	2,030	550	267	373
23	367	373	835	689	890	2,310	6,750	9,580	1,850	515	267	355
24	355	379	730	641	871	2,680	6,510	10,100	1,700	487	263	333
25	373	350	739	641	1,100	2,990	6,270	10,400	1,600	467	263	312
26	379	344	722	705	1,680	3,660	6,270	8,770	1,510	474	267	306
27	403	339	705	773	1,840	4,610	6,510	7,490	1,420	657	267	333
28	508	379	595	844	2,100	4,610	6,510	6,990	1,340	739	267	835
29	722	379	580	773	2,520	4,310	6,390	6,750	1,270	633	272	835
30	649	355	1,060	739	-	4,020	5,680	7,240	1,200	536	267	853
31	501	-	1,250	714	-	4,220	-	7,490	-	508	258	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	12,925	722	277	417	0.353	0.41	25,640
November	12,034	657	306	401	.340	.38	23,870
December	26,471	1,900	344	854	.724	.83	52,500
Calendar year 1939	799,651	15,900	277	2,191	1.86	25.20	1,586,000
January	28,316	1,870	494	913	.774	.89	56,160
February	36,101	2,520	689	1,245	1.06	1.14	71,610
March	75,710	4,610	1,410	2,442	2.07	2.39	150,200
April	174,050	8,510	3,840	5,802	4.92	5.49	345,200
May	269,070	12,400	6,030	8,680	7.36	8.48	533,700
June	107,370	7,740	1,200	3,579	3.03	3.38	213,000
July	22,769	1,290	467	734	.622	.72	45,160
August	10,093	487	258	326	.276	.32	20,020
September	11,586	853	249	386	.327	.36	22,980
Water year 1939-40	786,495	12,400	249	2,149	1.82	24.79	1,560,000

9-233 April 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

South Fork of Clearwater River near Grangeville, Idaho

Location.- Staff gage, lat. 45°55', long. 116°01', in SE¼NW¼ sec. 30, T. 30 N., R. 4 E., just downstream from power house of Washington Water Power Co., 6 miles southeast of Grangeville.

Drainage area.- 865 square miles.

Records available.- November 1910 to September 1916, April 1923 to September 1940.

Average discharge.- 21 years (1912-16, 1923-40), 794 second-feet.

Extremes.- Maximum discharge observed during year, 2,720 second-feet Apr. 15, 20; maximum gage height observed, 6.45 feet Apr. 20; minimum discharge observed, 40 second-feet Dec. 8 (regulated), (gage height, 2.24 feet).
1910-16, 1923-40: Maximum discharge observed, 9,830 second-feet May 30, 1912 (gage height, 9.7 feet), from rating curve extended above 6,500 second-feet; practically no flow for parts of Aug. 24, 26, 1935.

Remarks.- Records good. Diurnal fluctuations caused by power plant just above station. No diversion for irrigation. Gage read twice daily.

Cooperation.- Gage-height record furnished by Washington Water Power Co. in connection with a Federal Power Commission project.

Rating table, water year 1939-40 (gage height, in feet, and discharge, in second-feet)

2.2	35	3.7	490	5.2	1,510
2.5	79	4.0	649	5.5	1,780
2.8	142	4.3	827	5.8	2,070
3.1	232	4.6	1,030	6.1	2,380
3.4	349	4.9	1,260	6.4	2,720

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	158	140	649	175	622	2,490	2,070	1,420	307	156	76
2	77	153	147	541	184	622	2,270	2,170	1,600	299	147	76
3	114	147	150	466	187	649	1,880	2,490	1,340	291	140	76
4	108	150	95	372	193	568	1,600	2,270	1,180	284	135	101
5	219	135	120	336	196	516	1,600	2,270	1,180	328	125	254
6	372	130	147	284	254	466	1,600	2,170	1,030	280	118	196
7	254	161	137	206	341	441	1,420	1,970	1,030	250	118	135
8	187	261	88	193	284	466	1,510	1,880	1,260	232	112	118
9	164	206	187	229	284	490	1,970	1,970	1,180	219	116	118
10	166	175	257	243	311	441	1,970	2,170	960	225	105	114
11	147	156	268	178	303	418	1,880	2,490	926	209	101	116
12	140	147	212	153	276	418	1,880	2,490	892	196	99	116
13	135	132	172	193	250	332	2,070	2,380	892	190	97	209
14	128	140	172	196	264	345	2,600	2,170	827	184	97	276
15	132	116	175	190	250	358	2,720	2,070	736	178	95	196
16	147	97	206	199	212	394	2,070	1,970	706	175	93	150
17	147	95	315	212	236	490	2,070	1,970	649	181	93	147
18	132	103	284	184	239	516	2,070	1,880	622	250	90	142
19	130	125	206	158	225	516	2,170	1,780	594	295	88	172
20	123	120	202	196	229	568	2,600	1,880	541	257	83	161
21	125	128	219	239	187	622	2,380	1,780	516	216	81	212
22	128	161	193	250	225	706	2,170	1,780	466	190	81	222
23	123	150	132	232	216	765	2,170	1,690	441	172	79	190
24	123	135	140	212	216	892	2,170	1,780	418	164	79	147
25	135	128	135	216	219	1,030	2,070	1,880	380	150	81	140
26	140	128	145	222	336	1,690	2,170	1,690	367	150	79	135
27	145	140	166	243	362	2,070	2,270	1,510	341	216	79	156
28	172	158	125	209	390	1,880	2,270	1,420	328	236	79	219
29	254	137	142	196	380	1,690	2,270	1,340	324	206	79	390
30	222	140	222	199	-	1,510	1,970	1,510	307	172	79	362
31	172	-	324	202	-	1,600	-	1,340	-	166	77	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	4,862	372	77	157	0.182	0.21	9,640
November	4,312	261	95	144	.166	.19	8,550
December	5,623	324	88	181	.209	.24	11,150
Calendar year 1939	224,255	3,910	77	614	.710	9.66	444,700
January	7,798	649	153	252	.291	.34	15,470
February	7,424	390	175	256	.296	.32	14,730
March	24,091	2,070	332	777	.898	1.04	47,780
April	62,350	2,720	1,420	2,078	2.40	2.68	123,700
May	60,230	2,490	1,340	1,943	2.25	2.59	119,500
June	23,453	1,600	307	782	.904	1.01	46,520
July	6,868	328	150	222	.257	.30	13,620
August	3,081	156	77	99.4	.115	.13	6,110
September	5,122	390	76	171	.198	.22	10,160
Water year 1939-40	215,214	2,720	76	588	.680	9.27	426,900

400457 O - 41 - 16

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

North Fork of Clearwater River near Ahsahka, Idaho

Location.- Water-stage recorder, lat. 46°31', long. 116°18', in SE¼ sec. 26, T. 37 N., R. 1 E., at Bruce's Eddy, 1½ miles northeast of Ahsahka and 2 miles upstream from mouth.

Drainage area.- 2,440 square miles.

Records available.- August 1926 to September 1940.

Average discharge.- 14 years, 5,407 second-feet.

Extremes.- Maximum discharge during year, 17,100 second-feet May 12 (gage height, 13.35 feet); minimum, 775 second-feet Nov. 18, Sept. 2, 3; minimum gage height, 2.17 feet Nov. 18.

1926-40: Maximum discharge, 100,000 second-feet Dec. 23, 1933 (gage height, 35.5 feet, from floodmarks), from rating curve extended above 24,000 second-feet by logarithmic plotting; minimum, probably less than 250 second-feet Jan. 8, 1937, during period of ice effect.

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

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	855	1,080	965	3,780	1,610	11,700	13,200	10,400	9,090	2,280	1,320	800
2	855	1,020	1,180	4,560	1,570	10,800	13,400	11,200	9,430	2,230	1,280	775
3	882	995	1,280	4,820	1,570	9,940	11,700	13,200	8,610	2,180	1,250	775
4	910	1,020	1,250	4,170	1,940	8,450	10,400	13,600	7,810	2,040	1,220	828
5	1,120	1,020	1,060	3,650	2,430	7,810	10,100	13,400	7,360	1,940	1,180	1,180
6	1,690	938	965	3,100	4,300	7,060	9,770	12,400	6,760	1,860	1,150	1,490
7	1,420	1,080	938	2,760	5,640	6,460	9,090	11,500	6,480	1,770	1,120	1,150
8	1,120	1,690	1,060	2,330	4,820	9,260	9,770	11,000	6,620	1,730	1,080	995
9	995	1,610	2,210	2,280	4,170	8,450	11,500	11,500	6,200	1,690	1,060	938
10	965	1,320	3,650	2,330	6,200	7,210	12,400	13,000	5,640	1,690	1,020	910
11	938	1,150	3,160	f2,130	6,340	6,200	11,400	15,900	5,360	1,650	995	882
12	910	1,060	2,380	1,730	4,820	5,640	10,400	16,400	5,220	1,570	995	855
13	910	1,060	1,860	1,770	3,910	4,950	10,800	15,000	5,080	1,530	995	855
14	882	1,020	1,610	1,860	3,400	4,560	12,400	14,000	4,820	1,490	965	995
15	910	995	2,080	1,860	3,160	4,430	13,000	13,000	4,430	1,490	938	1,080
16	938	938	4,430	1,730	2,810	5,220	12,200	12,400	4,170	1,460	938	965
17	1,120	882	6,760	1,810	2,700	6,760	11,400	12,100	4,040	1,530	938	938
18	1,060	800	5,640	1,690	3,280	6,480	11,700	11,700	3,780	1,610	a920	1,080
19	1,020	828	3,650	1,120	3,280	6,200	12,400	11,900	3,650	1,490	a901	1,180
20	1,120	910	3,160	1,180	3,100	6,060	14,200	12,200	3,520	1,420	a883	1,080
21	1,180	938	3,280	1,180	2,920	6,060	14,000	12,200	3,280	1,420	a865	1,020
22	1,080	855	2,860	1,380	2,760	6,480	12,200	12,100	3,100	1,420	a846	965
23	995	965	2,430	1,570	2,640	6,910	12,200	12,200	2,920	1,350	828	1,060
24	965	1,020	1,990	1,530	2,540	7,510	12,200	12,600	2,810	1,280	828	965
25	995	938	1,860	1,380	2,980	8,130	11,500	13,000	2,700	1,250	828	910
26	1,060	855	1,660	1,420	6,910	9,770	11,500	11,900	2,540	1,250	828	855
27	1,060	855	1,770	1,730	8,930	12,100	11,400	10,300	2,430	1,880	828	882
28	1,150	965	f1,490	1,990	11,000	12,400	11,000	9,600	2,330	2,760	828	1,530
29	1,690	938	1,380	2,040	14,600	11,700	11,400	9,090	2,230	1,770	828	1,940
30	1,610	910	1,900	1,860	-	11,400	10,400	9,430	2,180	1,490	855	1,460
31	1,220	-	2,700	1,690	-	11,000	-	9,430	-	1,380	828	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	33,625	1,690	855	1,085	0.445	0.51	66,690
November	30,655	1,690	800	1,022	.419	.47	60,800
December	72,808	6,760	938	2,349	.963	1.11	144,400
Calendar year 1939	1,530,384	27,000	800	4,193	1.72	23.31	3,036,000
January	68,430	4,820	1,120	2,207	.905	1.04	135,700
February	126,330	14,600	1,570	4,356	1.79	1.93	250,600
March	247,120	12,400	4,430	7,972	3.27	3.77	490,200
April	349,030	14,200	9,090	11,630	4.77	5.32	692,300
May	377,650	16,400	9,090	12,180	4.99	5.75	749,100
June	144,590	9,430	2,180	4,820	1.98	2.21	286,800
July	51,900	2,760	1,250	1,674	.686	.79	102,900
August	30,338	1,320	828	979	.401	.46	60,170
September	31,338	1,940	775	1,045	.428	.48	62,160
Water year 1939-40	1,563,814	16,400	775	4,273	1.75	23.84	3,102,000

a No gage-height record; discharge interpolated.
f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

9-233 April 1936 UNITED STATES DEPARTMENT OF THE INTERIOR Geological Survey

South Fork of Palouse River above Paradise Creek, near Pullman, Wash.

Location.- Water-stage recorder and Parshall flume through low concrete dam, lat. 46°42'20", long. 117°09'55", in SE¼ sec. 8, T. 14 N., R. 45 E., 1 mile upstream from Paradise Creek and 2 miles southeast of Pullman.

Drainage area.- 81.1 square miles.

Records available.- May 1934 to September 1940 (discontinued).

Extremes.- Maximum discharge during year, 432 second-feet Mar. 8 (gage height, 3.90 feet); no flow Oct. 1-19, June 27 to Sept. 30.
1934-40: Maximum discharge, 533 second-feet Mar. 21, 1939 (gage height, 4.89 feet); frequently no flow during later part of summer months.

Remarks.- Records excellent. Slight regulation caused by pondage at Robinson Park Dam on headwaters. No diversion.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.19	0.39	5.3	5.8	f83	98	14	1.2			
2	0	.23	.47	4.8	4.1	f214	56	11	1.4			
3	0	f.32	.43	4.5	4.1	f111	39	9.5	1.4			
4	0	f.26	.60	4.8	11	75	31	8.6	1.2			
5	0	.23	.47	4.0	11	63	51	9.5	.99			
6	0	.32	.39	3.0	96	46	33	8.1	.84			
7	0	f.32	.36	2.4	54	119	27	7.0	.99			
8	0	f.29	.47	1.8	23	233	30	6.0	1.1			
9	0	f.32	.74	1.6	28	92	61	5.5	1.1			
10	0	.32	.94	1.8	f42	65	47	4.7	f.99			
11	0	.29	.78	1.8	32	50	28	4.1	f.84			
12	0	.29	.64	1.6	19	46	23	3.7	f.69			
13	0	.29	.56	1.4	19	36	f20	3.6	f.43			
14	0	.40	.56	1.6	22	33	19	3.4	f.29			
15	0	.50	1.0	1.6	18	28	17	3.5	f.26			
16	0	.23	1.8	1.7	13	30	15	3.4	.32			
17	0	.26	2.9	2.3	24	25	12	2.9	.28			
18	0	.29	2.5	1.8	56	22	f12	2.8	f.28			
19	0	.36	1.5	1.8	f48	20	11	2.6	f.20			
20	f.06	.55	1.2	1.2	33	19	10	2.4	f.10			
21	f.08	1.1	1.1	.94	26	17	f9.3	2.2	f.05			
22	.10	f.76	1.0	.94	25	15	f8.6	2.0	f.03			
23	f.14	f.39	.84	.99	23	14	10	1.8	.04			
24	.14	f.39	.79	.89	22	13	25	1.7	f.04			
25	.17	f.39	.69	.89	54	33	17	1.6	f.02			
26	.60	f.39	.60	1.1	f161	42	19	1.6	.01			
27	f.71	f.36	.64	2.4	f187	44	13	1.8	0			
28	f.37	.36	.64	11	f193	24	13	1.5	0			
29	.26	.36	.89	14	f150	26	12	1.4	0			
30	.19	.36	1.6	8.9	-	22	9.7	1.2	0			
31	.19	-	2.6	7.4	-	24	-	1.2	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3.01	0.71	0	0.097	0.0012	0.001	6.0
November	11.12	1.1	.19	.371	.0046	.005	22
December	30.09	2.9	.36	.971	.012	.014	60
Calendar year 1939	5,723.97	383	0	15.7	.194	2.630	11,360
January	100.25	14	.89	3.23	.040	.046	199
February	1,404.0	193	4.1	48.4	.597	.644	2,780
March	1,684	233	13	54.3	.670	.772	3,340
April	776.6	98	8.6	25.9	.319	.356	1,540
May	134.3	14	1.2	4.33	.053	.061	266
June	15.09	1.4	0	.503	.0062	.007	30
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0
Water year 1939-40	4,158.46	233	0	11.4	.141	1.906	8,240

Peak discharge.- Mar. 8 (12:30 a.m.) 432 sec.-ft.
f Discharge computed on basis of wholly or partly estimated gage-height record.
Note.- A 2-foot Cippoletti or a 6-inch rectangular weir, inserted in the flume, was used as control Oct. 1 to Dec. 10, Dec. 11-17, 19-31, Jan. 11-27, May 20 to Sept. 30, and discharge for these periods was computed by use of weir formulas.

South Fork of Palouse River at Pullman, Wash.

Location.- Water-stage recorder and 6-foot Cippoletti weir in low overflow dam, lat. 46°43' 50", long. 117°11'00", in NE¼ sec. 6, T. 14 N., R. 45 E., at State Street crossing in Pullman, 600 feet upstream from Missouri Flat Creek.

Drainage area.- 132 square miles.

Records available.- February 1934 to September 1940 (discontinued).

Extremes.- Maximum discharge during year, 743 second-feet Mar. 8 (gage height, 3.90 feet); minimum, 0.32 second-foot Aug. 11, 13, 27.
1934-40: Maximum discharge, 968 second-feet Mar. 21, 1939 (gage height, 4.01 feet); minimum, 0.23 second-foot Oct. 26, 1938.

Remarks.- Records excellent. No large diversions. Slight regulation caused by pondage at Robinson Park Dam in headwaters and by Moscow sewage-disposal plant on Paradise Creek.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.94	1.3	1.4	11	12	133	175	21	2.3	0.74	0.56	0.51
2	1.0	1.3	f1.6	9.3	8.9	363	90	16	2.4	.74	.56	.51
3	1.1	1.3	1.6	9.5	9.7	170	59	14	2.2	.74	.56	3.3
4	1.8	1.3	1.6	10	25	118	48	14	2.2	.84	.56	1.7
5	f1.7	1.2	1.6	8.3	23	113	86	16	2.0	.89	.51	1.8
6	1.3	1.3	1.6	5.9	210	80	52	13	2.0	.60	.51	1.8
7	1.0	1.7	1.6	4.7	95	238	41	11	2.8	.64	.64	.88
8	.94	1.8	2.2	3.8	39	f380	52	10	3.0	.64	.60	.69
9	.99	1.4	2.9	3.4	55	151	128	8.8	2.5	.70	.47	.60
10	1.2	1.4	4.3	3.9	72	110	84	7.8	2.1	.74	.47	.56
11	.99	1.4	3.6	3.0	53	85	46	6.9	2.1	.69	.43	.64
12	.69	1.3	2.4	3.0	28	79	36	6.1	2.1	.69	.51	.60
13	.94	1.3	2.1	3.0	31	89	30	5.7	1.4	.69	.43	1.5
14	.74	1.3	2.7	3.0	39	55	26	5.5	1.3	.64	.51	1.3
15	.89	2.0	4.8	2.8	33	47	23	5.5	1.3	.60	.51	.82
16	.89	1.4	8.3	3.4	21	54	21	5.3	1.2	.64	.47	.69
17	.89	1.3	9.4	4.6	46	42	19	4.6	1.2	.85	.47	.99
18	.94	1.4	5.0	4.0	112	33	17	4.4	1.2	.74	.51	2.8
19	f.94	1.4	3.3	3.8	88	29	16	4.1	1.2	.89	.51	3.4
20	f.89	1.4	f3.0	2.7	58	28	16	3.4	1.0	.74	.39	1.2
21	f.99	1.9	f2.8	2.2	43	24	14	3.4	.94	.69	.43	.94
22	.94	1.8	2.2	2.2	41	21	13	3.0	.94	.64	.47	.89
23	.89	1.4	2.1	2.3	39	20	16	3.0	.84	.56	.51	.79
24	.89	1.4	2.0	2.2	42	19	37	2.7	.74	.60	.56	.74
25	.99	1.4	1.8	2.1	129	55	25	2.7	.74	.51	.51	.79
26	1.3	1.3	1.8	3.2	291	71	28	2.8	.74	.94	.47	.84
27	1.3	1.3	1.8	7.9	312	75	19	2.6	.69	2.4	.39	1.2
28	1.6	1.4	1.9	28	330	37	19	2.4	.74	3.1	.51	1.4
29	1.3	1.5	2.6	29	244	38	18	2.3	.79	1.1	.51	1.7
30	1.2	1.5	3.8	19	-	35	15	2.3	.84	.84	.47	1.7
31	1.2	-	6.3	16	-	43	-	2.3	-	.69	.47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	33.37	1.8	0.69	1.08	0.0082	0.009	66
November	43.1	2.0	1.2	1.44	.011	.012	85
December	94.1	9.4	1.4	3.04	.023	.027	187
Calendar year 1939	9,556.60	666	.43	26.2	.198	2.694	18,960
January	217.2	29	2.1	7.01	.053	.061	431
February	2,529.6	330	8.9	87.2	.661	.713	5,020
March	2,805	380	19	90.5	.686	.790	5,560
April	1,269	175	13	42.3	.320	.358	2,520
May	212.6	21	2.3	6.86	.052	.060	422
June	45.50	3.0	.69	1.52	.012	.013	90
July	26.51	3.1	.51	.855	.0065	.007	53
August	15.48	.64	.39	.499	.0038	.004	31
September	37.28	3.4	.51	1.24	.0094	.011	74
Water year 1939-40	7,328.74	380	.39	20.0	.152	2.065	14,540

Peak discharge.- Mar. 8 (1 a.m.) 743 sec.-ft.
f Discharge computed on basis of partly estimated gage-height record.
Note.- A 2-foot Cippoletti weir, inserted in 6-foot opening, was used as control Oct. 1 to Dec. 8, June 6 to Sept. 30, and discharge for these periods was computed by use of weir formulas.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Missouri Flat Creek at Pullman, Wash.

Location.- Water-stage recorder and Parshall flume through low concrete dam, lat. 46°43' 50", long. 117°11'00", in NE¼ sec. 6, T. 14 N., R. 45 E., at State Street crossing in Pullman, 600 feet upstream from mouth.

Drainage area.- 27.5 square miles.

Records available.- February 1934 to September 1940 (discontinued).

Extremes.- Maximum discharge during year, 331 second-feet Mar. 7 (gage height, 3.09 feet); practically no flow several days during summer.
1934-40: Maximum discharge, 432 second-feet Mar. 19, 1939 (gage height, 3.25 feet); practically no flow for long periods in each year.

Remarks.- Records excellent. No diversion or regulation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.01	0.02	0.04	1.2	2.2	25	53	2.4	0.10	0.10	0.01	0
2	.01	.02	.04	.81	1.6	93	15	1.8	.10	.01	.01	0
3	.01	.02	.02	.75	2.0	28	7.0	1.2	.10	.01	.01	0
4	.01	.02	.02	1.2	7.5	22	5.2	1.0	.07	0	.01	.01
5	.07	.02	.02	1.1	4.4	26	16	.99	.04	0	.01	.06
6	.01	.01	.02	.93	58	15	6.7	.87	f.02	0	.01	.01
7	.01	.02	.02	.54	13	105	5.0	.59	f.11	0	.01	.01
8	.01	.02	.05	.50	6.4	62	8.3	.46	.08	0	.01	.01
9	.01	.01	.08	.42	15	26	47	.38	.04	0	.01	.01
10	.01	.01	.16	.45	11	21	12	.36	.02	0	.01	.01
11	.01	.02	.12	.32	6.1	15	5.7	.37	.01	.01	.01	.01
12	.01	.02	.04	.30	3.6	14	4.0	.30	.01	0	f.01	.01
13	.01	.01	.04	.30	5.0	10	3.3	.30	.01	0	f.01	.10
14	.01	.02	.15	.30	10	9.9	2.7	.30	.01	0	f.01	f.08
15	.01	.01	.34	.28	6.7	8.7	f2.3	.30	.01	0	f.01	.02
16	.01	.02	.62	.43	4.1	10	2.0	.25	.01	0	.01	.01
17	f.02	.02	1.8	.65	17	6.8	1.8	.23	.01	0	.01	.03
18	f.02	.02	.56	.43	30	5.4	1.6	.19	.01	.01	.01	.25
19	.02	.02	.23	.42	16	4.8	1.4	.17	.01	0	.01	.08
20	.01	.02	.19	.25	10	4.3	1.3	.17	.01	0	.01	.04
21	.02	.02	.14	.16	7.4	3.4	f1.2	.16	.01	0	0	.03
22	.02	.02	.11	.17	6.9	2.9	1.0	.14	.01	0	.01	.02
23	.02	.02	.10	.19	7.6	2.6	1.8	.11	.01	0	.01	.02
24	.02	.02	.08	.17	12	2.5	4.6	.10	f0	0	.01	.02
25	.02	.02	.04	.17	67	17	2.8	.10	0	0	0	.02
26	.04	.02	.04	.40	94	13	3.4	.07	0	0	0	.03
27	.05	.02	.03	3.2	73	15	2.1	.07	0	.14	.01	.04
28	.03	.02	.03	7.8	111	4.9	1.8	.07	0	.02	.01	.08
29	.02	a.02	.12	5.7	45	5.9	2.0	.06	0	0	.01	.03
30	.01	a.03	.42	4.1	-	6.1	1.4	.07	.01	.01	0	.14
31	.03	-	.96	3.1	-	8.8	-	.11	-	.01	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	0.57	0.07	0.01	0.018	0.00065	0.0007	1.1
November	.56	.03	.01	.019	.00069	.0008	1.1
December	6.63	1.8	.02	.214	.0078	.009	13
Calendar year 1939	1,995.10	210	0	5.47	.199	2.699	3,960
January	36.74	7.8	.16	1.19	.043	.050	73
February	653.5	111	1.6	22.5	.818	.882	1,300
March	594.0	105	2.5	19.2	.698	.805	1,180
April	223.4	53	1.0	7.45	.271	.302	443
May	13.69	2.4	.06	.442	.016	.018	27
June	.82	.11	0	.027	.00098	.001	1.6
July	.23	.14	0	.007	.00025	.0003	.46
August	.26	.01	0	.008	.00029	.0003	.52
September	1.18	.25	0	.039	.0014	.002	2.3
Water year 1939-40	1,531.58	111	0	4.18	.152	2.071	3,040

a No gage-height record; discharge interpolated.
f Discharge computed on basis of partly estimated gage-height record.
Note.- A 1-foot Cippoletti weir or a 3-inch rectangular weir, inserted in the flume, was used as control Oct. 1 to Dec. 15, Dec. 16-17, 18-31, Jan. 9-27, May 10 to Sept. 30, and discharge for these periods was computed by use of weir formulas.

U. S. GOVERNMENT PRINTING OFFICE : 1937—O-179044

Fourmile Creek at Shawnee, Wash.

Location.- Water-stage recorder and Parshall flume through low concrete dam, lat. 46°49' 55", long. 117°16'20", in SW¼NE¼ sec. 33, T. 16 N., R. 44 E., half a mile upstream from mouth and three-quarters of a mile north of Shawnee.

Drainage area.- 71.9 square miles.

Records available.- March 1934 to September 1940 (discontinued).

Extremes.- Maximum discharge during year, 767 second-feet Mar. 7 (gage height, 3.87 feet); no flow Oct. 1 to Nov. 30, June 21 to Sept. 30.
1934-40: Maximum discharge, 786 second-feet Jan. 24, 1935 (gage height, 4.13 feet); no flow for long periods in each year.

Remarks.- Records excellent. No diversion or regulation.

Discharge, in second-feet, water year October 1939 to September 1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	f0.05	2.7	3.2	55	138	12	0.32			
2		0	f.06	2.5	2.2	202	47	6.6	.35			
3		0	f.06	2.5	2.6	60	23	5.4	.36			
4		0	f.06	2.6	17	45	18	5.0	.30			
5		0	f.07	2.0	8.0	61	33	4.5	.25			
6		0	.04	1.6	90	35	21	3.5	.20			
7		0	.03	1.1	27	256	16	2.9	.37			
8		0	.05	.89	13	187	23	2.3	.75			
9		0	.22	.79	30	65	80	2.0	.61			
10		0	.53	.84	26	48	30	1.5	.36			
11		0	.58	.69	14	37	16	1.3	.30			
12		0	.40	.69	8.8	35	13	1.1	.20			
13		0	.30	.64	11	27	10	.98	.10			
14		0	.30	.69	23	25	8.7	.98	.08			
15		0	.60	.74	15	22	7.7	1.1	.06			
16		0	1.4	.84	9.2	25	6.9	.98	.04			
17		0	1.8	1.3	29	19	6.1	.78	.04			
18		0	1.5	1.1	56	16	5.4	.72	.02			
19		0	.89	1.3	36	14	4.9	.66	.02			
20		0	.56	.69	24	13	4.7	.61	.01			
21		0	.43	.47	18	11	4.2	.56	0			
22		0	.39	.43	17	9.7	3.9	.51	0			
23		0	.36	.43	18	8.7	6.0	f.51	0			
24		0	.32	.43	24	8.6	25	.44	0			
25		0	.29	.47	152	53	11	.40	0			
26		0	.26	.79	244	36	15	.38	0			
27		0	f.26	e6.1	188	38	8.3	.36	0			
28		0	f.26	e17	279	16	11	.35	0			
29		0	.36	11	112	17	9.8	.35	0			
30		.01	.74	6.5	-	21	6.1	.30	0			
31		-	1.4	4.8	-	17	-	.35	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	0	0	0	0	0	0	0
November	.01	.01	0	.0003	.0000042	.000005	.02
December	14.57	1.8	.03	.470	.0065	.007	29
Calendar year 1939	4,792.69	394	0	13.1	.182	2.481	9,510
January	74.62	17	.43	2.41	.034	.039	148
February	1,497.0	279	2.2	51.6	.718	.774	2,970
March	1,483.0	256	8.6	47.8	.665	.767	2,940
April	612.7	138	3.9	20.4	.284	.317	1,220
May	59.42	12	.30	1.92	.027	.031	118
June	4.74	.75	0	.158	.0022	.002	9.4
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0
Water year 1939-40	3,746.06	279	0	10.2	.142	1.937	7,430

Peak discharge.- Feb. 28 (6 p.m.) 543 sec.-ft.; Mar. 7 (9:40 p.m.) 767 sec.-ft.
e Capacity of weir exceeded for part of day; discharge based on study of gage-height record.
f Discharge computed on basis of partly estimated gage-height record.
Note.- A 2-foot or a 6-inch Cippoletti weir, inserted in the flume, was used as control Oct. 1 to Jan. 28, May 24 to Sept. 30, and discharge for these periods was computed by use of weir formulas.

In addition to the records of stream flow obtained at gaging stations in the Snake River Basin and reported in the preceding pages, measurements of flow were made at other points, as shown in the following table:

Miscellaneous discharge measurements in Snake River Basin during water year October 1939 to September 1940

Tributaries between Portneuf River and Salmon Falls Creek, Idaho

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
July 31	Tributary below Twin Falls power plant.	Snake River.....	NW¼ sec. 4, T. 10 S., R. 18 E., 700 feet above mouth, ¼ mile below Twin Falls power plant, 4 miles north of Kimberly.	*3.5
Oct. 4	Blue Lakes outlet.	....do.....	SW¼SW¼ sec. 26, T. 9 S., R. 17 E., at mouth, 4 miles north of Twin Falls.	213
Dec. 3	....do.....	....do.....	....do.....	217
Jan. 23	....do.....	....do.....	....do.....	212
Mar. 1	....do.....	....do.....	....do.....	204
29	....do.....	....do.....	....do.....	193
May 2	....do.....	....do.....	....do.....	196
28	....do.....	....do.....	....do.....	195
June 29	....do.....	....do.....	....do.....	204
July 31	....do.....	....do.....	....do.....	218
Sept. 3	....do.....	....do.....	....do.....	212

*Estimated.

Big Wood River Basin, Idaho

Apr. 13	Broadford Slough..	Big Wood River...	Sec. 26, T. 2 N., R. 18 E., 100 feet below diversion 36, 1½ miles northwest of Bellevue.	3.14
May 2	....do.....	....do.....	....do.....	4.13
29	....do.....	....do.....	....do.....	7.74
July 2	....do.....	....do.....	....do.....	4.14
30	....do.....	....do.....	....do.....	5.26
Aug. 22	....do.....	....do.....	....do.....	.65
Sept.30	....do.....	....do.....	....do.....	S.39
July 30	....do.....	....do.....	Sec. 35, T. 2 N., R. 18 E., at road crossing about ½ mile below diversion 36 and 1 mile west of Bellevue.	3.09
Apr. 13	Rockwell bypass canal.	Broadford Slough.	Sec. 22, T. 2 N., R. 18 E., at head, 2 miles southeast of Hailey.	10.8
May 2	....do.....	....do.....	....do.....	9.05
29	....do.....	....do.....	....do.....	12.0
July 2	....do.....	....do.....	....do.....	20.4
30	....do.....	....do.....	....do.....	13.4
Aug. 22	....do.....	....do.....	....do.....	.71
Sept.30	....do.....	....do.....	....do.....	16.8
Apr. 13	....do.....	....do.....	Sec. 22, T. 2 N., R. 18 E., 50 feet below wasteway, 2.1 miles southeast of Hailey.	.19
May 2	....do.....	....do.....	....do.....	*.05
29	....do.....	....do.....	....do.....	.50
July 2	....do.....	....do.....	....do.....	6.79
30	....do.....	....do.....	....do.....	2.89
Aug. 22	....do.....	....do.....	....do.....	.62
Sept.30	....do.....	....do.....	....do.....	*.25
Apr. 13	Diversion 36.....	....do.....	Sec. 26, T. 2 N., R. 18 E., at head, 1½ miles northwest of Bellevue.	.30
May 2	....do.....	....do.....	....do.....	*.05
29	....do.....	....do.....	....do.....	.71
July 2	....do.....	....do.....	....do.....	2.98
30	....do.....	....do.....	....do.....	.56
Aug. 22	....do.....	....do.....	....do.....	*.20
Sept.30	....do.....	....do.....	....do.....	*.20

*Estimated.

Tributaries between Big Wood and Owyhee Rivers, Idaho

Oct. 5	Ake lateral No. 1.	Mountain Home feeder canal.	Sec. 36, T. 2 S., R. 6 E., at head, 5 miles north of Mountain Home.	0
Nov. 15	....do.....	....do.....	....do.....	0
Jan. 3	....do.....	....do.....	....do.....	0
30	....do.....	....do.....	....do.....	0
Feb. 29	....do.....	....do.....	....do.....	*.05
Mar. 4	....do.....	....do.....	....do.....	0
29	....do.....	....do.....	....do.....	0
Apr. 2	....do.....	....do.....	....do.....	0
3	....do.....	....do.....	....do.....	0
12	....do.....	....do.....	....do.....	0
May 31	....do.....	....do.....	....do.....	0
July 7	....do.....	....do.....	....do.....	0
20	....do.....	....do.....	....do.....	0
Aug. 5	....do.....	....do.....	....do.....	0
14	....do.....	....do.....	....do.....	0
Sept. 9	....do.....	....do.....	....do.....	0
28	....do.....	....do.....	....do.....	0
Oct. 5	Ake lateral No. 2.	....do.....	....do.....	1.19
Nov. 15	....do.....	....do.....	....do.....	.62
Jan. 3	....do.....	....do.....	....do.....	.41
30	....do.....	....do.....	....do.....	*.50
Feb. 29	....do.....	....do.....	....do.....	*.10
Mar. 29	....do.....	....do.....	....do.....	*.25
Apr. 2	....do.....	....do.....	....do.....	0
3	....do.....	....do.....	....do.....	0
12	....do.....	....do.....	....do.....	6.40

*Estimated.

Miscellaneous discharge measurements in Snake River Basin during water year October 1939 to September 1940--Continued

Tributaries between Big Wood and Owyhee Rivers, Idaho--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
May 31	Ake lateral No. 2.	Mountain Home feeder canal.	Sec. 36, T. 2 S., R. 6 E., at head, 5 miles north of Mountain Home.	*1.40
Aug. 6	....do.....	....do.....	....do.....	2.91
Sept.28	....do.....	....do.....	....do.....	2.60
Oct. 5	Ake lateral No. 3.	....do.....	....do.....	0
Nov. 15	....do.....	....do.....	....do.....	0
Jan. 3	....do.....	....do.....	....do.....	0
30	....do.....	....do.....	....do.....	0
Feb. 29	....do.....	....do.....	....do.....	0
Apr. 2	....do.....	....do.....	....do.....	0
3	....do.....	....do.....	....do.....	0
12	....do.....	....do.....	....do.....	0
May 31	....do.....	....do.....	....do.....	0
Aug. 5	....do.....	....do.....	....do.....	0
Sept.28	....do.....	....do.....	....do.....	0

*Estimated.

Owyhee River Basin, Oreg.

June 6	Crooked Creek.....	Owyhee River.....	SW¼NE¼ sec. 22, T. 33 S., R. 39 E., at spring at head of creek.	8.0
6	....do.....	....do.....	SW¼NW¼ sec. 20, T. 33 S., R. 40 E., at road crossing, ½ mile above Jaca Reservoir.	3.2
6	....do.....	....do.....	SW¼ sec. 9, T. 33 S., R. 40 E., below Loveland ranch diversion dam.	3.2

Malheur River Basin, Oreg.

Mar. 20	Stinkingwater Creek.	Malheur River....	Sec. 20, T. 22 S., R. 35 E., above O'Toole Ranch, 12 miles south of Drewsey.	15.3
19	....do.....	....do.....	Sec. 33, T. 20 S., R. 35 E., at highway crossing, 2 miles southwest of Drewsey.	28.5
22	Crane Creek.....	South Fork of Malheur River.	Sec. 14, T. 25 S., R. 34 E., below Johnson Ranch, 4 miles east of Crane.	6.5
May 1	Otis Creek.....	Cottonwood Creek.	Sec. 36, T. 19 S., R. 35 E., 5 miles north of Drewsey.	2.0

Powder River Basin, Oreg.

Aug. 9	Pine Creek.....	Powder River.....	NW¼ sec. 36, T. 8 S., R. 38 E., 7 miles southwest of Haines.	5.7

Payette River Basin, Idaho

Oct. 12	Cruzen canal.....	Lake Fork of Payette River.	Sec. 3, T. 17 N., R. 3 E., at head, 5 miles south of McCall.	4.60
June 1	....do.....	....do.....	....do.....	57.9
28	....do.....	....do.....	....do.....	56.8
July 11	....do.....	....do.....	....do.....	46.7
19	....do.....	....do.....	....do.....	46.5
Aug. 15	....do.....	....do.....	....do.....	32.4
Sept. 9	....do.....	....do.....	....do.....	7.82

Weiser River Basin, Idaho

June 21	Middle Valley ditch.	Weiser River.....	Sec. 27, T. 14 N., R. 3 W., 3/8 mile below head, 3 miles south of Cambridge.	58.7
July 10	Sunnyside Ditch Co. canal.	....do.....	Sec. 35, T. 11 N., R. 4 W., opposite siphon trestle, 9½ miles west of Weiser.	22.9

Salmon River Basin, Idaho

Oct. 31	East Fork of Salmon River.	Salmon River.....	Sec. 1, T. 10 N., R. 18 E., at highway bridge, 4 miles above mouth, 7 miles southeast of Clayton.	85.4
June 14	Johnson Creek diversion.	Johnson Creek....	Sec. 23, T. 14 N., R. 7 E., about ½ mile below point of Johnson Creek-Deadwood River transmountain diversion, 9 miles south of Landmark ranger station, 11 miles southeast of Knox.	30.6
30	Riordan Creek.....	....do.....	Sec. 9, T. 18 N., R. 8 E., at highway bridge, 1¼ miles south of Johnson Creek ranger station, 4 miles south of Yellow Pine.	31.9
July 29	....do.....	....do.....	....do.....	12.7
Aug. 19	....do.....	....do.....	....do.....	7.61

INDEX

Page

Accuracy of field data and computed results..... 3-4
Acre-foot, definition of..... 1
Agencies other than Geological Survey, records collected by..... 9-10
Agency Valley Reservoir, Oreg..... 159
Ahsahka, Idaho, North Fork of Clearwater River near..... 236
Ake laterals Nos. 1, 2, and 3, Idaho, discharge measurements of.....241-242
American Falls Reservoir at American Falls, Idaho..... 20-21
Argora, Idaho, Medicine Lodge Creek near..... 72
Arrowrock, Idaho, Arrowrock Reservoir at..... 133
  Boise River near..... 134
  Grouse Creek near..... 141
  Moore Creek near..... 145
Arrowrock Reservoir, Idaho, Cottonwood Creek at..... 139
Arrowrock Reservoir at Arrowrock, Idaho 133
Ashton, Idaho, Henrys Fork near..... 49
Asotin Creek near Asotin, Wash..... 230

Banks, Idaho, South Fork of Payette River near..... 163
Bannock Creek near Idaho City, Idaho... 148
Barber, Idaho, New York canal near..... 153
Bear Creek near Wallowa, Oreg..... 229
Bear Valley Creek near Cape Horn, Idaho 213
Beaver Creek at Camas, Idaho..... 71
  at Dubois, Idaho..... 70
  near Spencer, Idaho..... 69
Bedford, Wyo., Strawberry Creek near... 39
Bellevue, Idaho, Big Wood River near... 103
Bennett, Idaho, Bennett Creek near..... 120
  Little Camas canal near..... 142
Bennett Creek near Bennett, Idaho..... 120
Beulah, Oreg., North Fork of Malheur River at..... 161
  North Fork of Malheur River near..... 160
Big Lost River below Mackay Reservoir, near Mackay, Idaho..... 80
  east channel of, near Mackay, Idaho.. 76
  near Chilly, Idaho..... 75
  west channel of, near Mackay, Idaho.. 77
Big Lost River Basin, Idaho, gaging-station records in..... 75-83
Big Wood River at Gooding, Idaho..... 106
  at Hailey, Idaho..... 101
  near Bellevue, Idaho..... 103
  near Gooding, Idaho..... 107
  near Richfield, Idaho..... 105
Big Wood River Basin, Idaho, discharge measurements in..... 241
  gaging-station records in.....101-116
Big Wood Slough at Hailey, Idaho..... 108
Birch Creek near Downey, Idaho..... 86
Blackfoot, Idaho, Blackfoot River near. 65
  Snake River near..... 19
Blackfoot River near Blackfoot, Idaho.. 65
Blaine, Idaho, Camas Creek near..... 109
Blaine County Investment Co.'s canal near Howe, Idaho..... 74
Bliss, Idaho, Clover Creek near..... 117
Blue Lakes outlet, Idaho, discharge measurements of..... 241
Boise, Idaho, Boise River at..... 135
  Boise River near..... 136
  Cottonwood Gulch at..... 154
Boise River at Boise, Idaho..... 135
  at Notus, Idaho..... 137
  diversions from. 138
  near Arrowrock, Idaho..... 134
  near Boise, Idaho..... 136
  near Twin Springs, Idaho..... 132
  South Fork of, near Lenox, Idaho..... 140
Boise River Basin, Idaho, gaging-station records in.....132-155

Page

Boulder Creek near Tamarack, Idaho..... 221
Broadford Slough, Idaho, discharge measurement of..... 241
Bruneau, Idaho, Jacks Creek near..... 124
  Wickahoney Creek near..... 123
Buffalo River near Island Park, Idaho.. 54-55
Burnt River near Hereford, Oreg..... 198
Burnt River Basin, Oreg., gaging-station records in.....197-198

Caldwell, Idaho, Deer Flat Reservoir near..... 155
Camas, Idaho, Beaver Creek at..... 71
  Camas Creek at..... 68
Camas Creek (Big Wood River Basin) near Blaine, Idaho..... 109
Camas Creek (Mud Lake Basin) at Camas, Idaho..... 68
  near Kilgore, Idaho..... 67
Cambridge, Idaho, Pine Creek near..... 190
  Rush Creek at..... 189
  Weiser River near..... 180
Cape Horn, Idaho, Bear Valley Creek near..... 213
  Middle Fork of Salmon River near..... 212
Catherine Creek near Union, Oreg..... 224
Challis, Idaho, Salmon River near..... 205
Chester, Idaho, Fall River near..... 59
Chilly, Idaho, Big Lost River near..... 75
Clarkston, Wash., Snake River near.34, pl.1,C
Clayton, Idaho, Salmon River near..... 204
  Yankee Fork of Salmon River near..... 209
Clearwater River at Kamiah, Idaho..... 232
  at Spalding, Idaho..... 233
  North Fork of, near Ahsahka, Idaho... 236
  South Fork of, near Grangeville, Idaho..... 235
Clearwater River Basin, Idaho, gaging-station records in.....231-236
Clover Creek near Bliss, Idaho..... 117
Computations, accuracy of results of... 3-4
Control, definition of..... 1
Cooperation, record of..... 10
Cottonwood Creek (Boise River Basin) at Arrowrock Reservoir, Idaho.... 139
Cottonwood Creek (Salt River Basin) near Smoot, Wyo..... 38
Cottonwood Gulch at Boise, Idaho..... 154
Council, Idaho, East Fork of Weiser River near..... 182
  Hornet Creek near..... 186
  Weiser River near..... 179
Crane Creek, Oreg., discharge measurement of..... 242
  near Midvale, Idaho..... 193
  near Weiser, Idaho..... 194
Crane Creek Reservoir near Midvale, Idaho..... 192
Crooked Creek, Oreg., discharge measurements of..... 242
Cruzen canal, Idaho, discharge measurements of..... 242

Data, accuracy of..... 3-4
  explanation of..... 1-3
Deadwood Reservoir near Lowman, Idaho.. 167
Deadwood River below Deadwood Reservoir, near Lowman, Idaho.... 168
  near Lowman, Idaho..... 169
Deer Flat Reservoir near Caldwell, Idaho..... 155
Downey, Idaho, Birch Creek near..... 86
Drewsey, Oreg., Malheur River near..... 156
Driggs, Idaho, Teton River near..... 61
Dubois, Idaho, Beaver Creek at..... 70

Elk Creek above Gold Hill Placer diversion, near Idaho City, Idaho 151
  near Idaho City, Idaho..... 152
Emmett, Idaho, Payette River near..... 165

	Page
Fall River, diversions from, above gaging station near Squirrel, Idaho	56
diversions from, between Squirrel and Chester gaging stations, Idaho	58
near Chester, Idaho	59
near Squirrel, Idaho	57
Flat Creek near Jackson, Wyo	35
Floods, special reports on	9
Fourmile Creek at Shawnee, Wash	240
Fruitvale, Idaho, West Fork of Weiser River near	183
Garden Valley, Idaho, South Fork of Payette River near	162
Gardena, Idaho, Porter Creek near	175-176
Glenns Ferry, Idaho, Little Canyon Creek near	119
Gold Creek, Nev., Owyhee River near	126
Wild Horse Reservoir near	125
Gold Hill Placer diversion from Moore Creek, near Idaho City, Idaho	146
Gooding, Idaho, Big Wood River at	106
Big Wood River near	107
Thorn Creek spillway near	112
Gooding canal at Milner, Idaho	94
Goose Creek near Oakley, Idaho	89
Grande Ronde River at La Grande, Oreg	222
at Rondowa, Oreg	223
Grande Ronde River Basin, Oreg., gaging-station records in	222-229
Grangeville, Idaho, South Fork of Clearwater River near	235
Granite Creek near Idaho City, Idaho	147
Grassy Lake near Moran, Wyo	60
Grouse Creek near Arrowrock, Idaho	141
Hagerman, Idaho, King Hill canal near	116
Snake River near	28,29
Hailey, Idaho, Big Wood River at	101
Big Wood Slough at	108
combined discharge of Big Wood River and Big Wood Slough at	102
Heise, Idaho, Snake River near	15
Henrys Fork at Coffee Pot Rapids, near Island Park, Idaho	42-43
at De Winers Ranch, near Island Park, Idaho	46-47
at St. Anthony, Idaho	51
at Warm River, Idaho	48
diversions from, between Ashton and St. Anthony gaging stations, Idaho	50
diversions from, between St. Anthony and Rexburg gaging stations, Idaho	52
near Ashton, Idaho	49
near Island Park, Idaho	45
near Lake, Idaho	41
near Rexburg, Idaho	53
Henrys Fork Basin, Idaho, gaging-station records in	40-64
Henrys Lake near Lake, Idaho	40
Hereford, Oreg., Burnt River near	198
Hope, Oreg., Malheur River near	158
Hornet Creek near Council, Idaho	186
Horseshoe Bend, Idaho, Payette River near	164
Howe, Idaho, Blaine County Investment Co.'s canal near	74
Little Lost River near	73
Hurricane Creek near Joseph, Oreg	227
Idaho City, Idaho, Bannock Creek near	148
Elk Creek near	151,152
Gold Hill Placer diversion near	146
Granite Creek near	147
Moore Creek near	143,144
Pine Creek near	149,150
Immaha River at Immaha, Oreg	202
Indian Valley, Idaho, Little Weiser River near	191
Irwin, Idaho, Snake River at	14
Island Park, Idaho, Buffalo River near	54-55
Henrys Fork near	42-43,45,46-47
Island Park Reservoir near Island Park, Idaho	44
Jacks Creek near Bruneau, Idaho	124
Jackson, Wyo., Flat Creek near	35
Jackson Lake at Moran, Wyo	12
Johnson Creek at Yellow Pine, Idaho	219
Johnson Creek diversion, Idaho, discharge measurement of	242
Joseph, Oreg., East Fork of Wallowa River near	225
Hurricane Creek near	227
Wallowa Falls power-plant tailrace near	226
Kamiah, Idaho, Clearwater River at	232
Kilgore, Idaho, Camas Creek near	67
Kimberly, Idaho, Snake River near	26
King Hill, Idaho, King Hill Creek near	118
Snake River at	30, pl.1,A
King Hill canal near Hagerman, Idaho	116
King Hill Creek near King Hill, Idaho	118
Knox, Idaho, South Fork of Salmon River near	214
La Grande, Oreg., Grande Ronde River at	222
Lake, Idaho, Henrys Fork near	41
Henrys Lake near	40
Lake Fork Reservoir near McCall, Idaho	173
Lake Irrigation District canal near McCall, Idaho	174
Lake Walcott near Minidoka, Idaho	23
Lardo, Idaho, North Fork of Payette River at	171
Payette Lake at	170
Lemhi River at Salmon, Idaho	211
Lenox, Idaho, South Fork of Boise River near	140
Lincoln canal near Richfield, Idaho	110
near Shoshone, Idaho	111
Little Camas canal near Bennett, Idaho	142
Little Canyon Creek near Glenns Ferry, Idaho	119
Little Lost River near Howe, Idaho	73
Little Lost River Basin, Idaho, gaging-station records in	73-74
Little Weiser River near Indian Valley, Idaho	191
Little Wood River at Shoshone, Idaho	114
near Richfield, Idaho	113
Lochsa River near Lowell, Idaho	234
Lost Creek near Tamarack, Idaho	185
Lost Valley Reservoir near Tamarack, Idaho	184
Lostine River near Lostine, Oreg	228
Lowell, Idaho, Lochsa River near	234
Selway River near	231
Lowman, Idaho, Deadwood Reservoir near	167
Deadwood River near	168,169
McCall, Idaho, Lake Fork of Payette River near	172
Lake Fork Reservoir near	173
Lake Irrigation District canal near	174
Mackay, Idaho, Big Lost River near	76,77,80
combined flow of Big Lost River and Warm Spring Creek near	78
Mackay Reservoir near	79
Sharp ditch near	83
Warm Spring Creek near	81,82
Mackay Reservoir near Mackay, Idaho	79
Magic Reservoir near Richfield, Idaho	104
Malheur River near Drewsey, Oreg	156
near Hope, Oreg	158
near Riverside, Oreg	157
North Fork of, at Beulah, Oreg	161
near Beulah, Oreg	160
Malheur River Basin, Oreg., discharge measurements in	242
gaging-station records in	156-161
reservoirs in	159
Mann Creek near Weiser, Idaho	196
May, Idaho, Pahsimeroi River near	210
Medicine Lodge Creek near Argora, Idaho	72
Mesa, Idaho, Mesa Orchards canal near	188
Middle Fork of Weiser River near	187
Mesa Orchards canal near Mesa, Idaho	188
Middle Valley ditch, Idaho, discharge measurement of	242
Midvale, Idaho, Crane Creek near	193
Crane Creek Reservoir near	192
Milner, Idaho, Gooding canal at	94
Milner low-lift canal near	93
North Side Twin Falls canal at	95
P. A. lateral near	92

Page

Milner, Idaho, Snake River at..... 25
South Side Twin Falls canal at..... 96
Milner low-lift canal near Milner, Idaho 93
Minidoka, Idaho, Lake Walcott near..... 23
North Side Minidoka canal near..... 87
Snake River near..... 24
South Side Minidoka canal near..... 88
Missouri Flat Creek at Pullman, Wash... 239
Moore Creek above Granite Creek, near Idaho City, Idaho..... 143
above Thorn Creek, near Idaho City, Idaho..... 144
Gold Hill Placer diversion from, near Idaho City, Idaho..... 146
near Arrowrock, Idaho..... 145
Moran, Wyo., Grassy Lake near..... 60
Jackson Lake at..... 12
Snake River at..... 13
Mountain City, Nev., Owyhee River at... 127
Mountain Home cooperative canal near Mountain Home, Idaho..... 122
Mountain Home feeder canal near Mountain Home, Idaho..... 121
Mud Creek near Tamarack, Idaho..... 220
Mud Lake Basin, Idaho, gaging-station records in..... 66-72
Mud Lake near Terreton, Idaho..... 66
Murphy, Idaho, Snake River near....31, pl.1,B

Neeley, Idaho, Snake River at..... 22
New York canal near Barber, Idaho..... 153
North Side Minidoka canal near Minidoka, Idaho..... 87
North Side Twin Falls canal at Milner, Idaho..... 95
Notus, Idaho, Boise River at..... 137
Nyssa, Oreg., Owyhee Reservoir near.... 130

Oakley, Idaho, Goose Creek near..... 89
Oakley Reservoir near..... 90
Trapper Creek near..... 91
Oakley Reservoir near Oakley, Idaho.... 90
Otis Creek, Oreg., discharge measurement of..... 242
Owyhee Dam, Oreg., Owyhee River below.. 131
Owyhee Reservoir, Oreg., Owyhee River above..... 129
Owyhee Reservoir near Nyssa, Oreg..... 130
Owyhee River above Owyhee Reservoir, Oreg..... 129
at Mountain City, Nev..... 127
below Owyhee Dam, Oreg..... 131
near Gold Creek, Nev..... 126
near Owyhee, Nev..... 128
Owyhee River Basin, Nev.-Oreg., discharge measurements in..... 242
gaging-station records in.....125-131
Oxbow, Oreg., Snake River at..... 33

P. A. lateral near Milner, Idaho..... 92
Pahsimeroi River near May, Idaho..... 210
Palouse River, South Fork of, at Pullman, Wash..... 238
near Pulman, Wash..... 237
Palouse River Basin, Wash., gaging-station records in.....237-240
Payette Lake at Lardo, Idaho..... 170
Payette River, Lake Fork of, near McCall, Idaho..... 172
near Emmett, Idaho..... 165
near Horseshoe Bend, Idaho..... 164
near Payette, Idaho..... 166
North Fork of, at Lardo, Idaho..... 171
South Fork of, near Banks, Idaho..... 163
near Garden Valley, Idaho..... 162
Payette River Basin, Idaho, discharge measurements in..... 242
gaging-station records in.....162-175
Picabo, Idaho, Silver Creek near..... 115
Pine Creek (Boise River Basin) above Barry Placer diversion, near Idaho City, Idaho..... 149
near Idaho City, Idaho..... 150
Pine Creek (Powder River Basin), Oreg., discharge measurement of..... 242
Pine Creek (Weiser River Basin) near Cambridge, Idaho..... 190
Pocatello, Idaho, Portneuf River at.... 85
Porter Creek near Gardena, Idaho.....175-176
Portneuf River at Pocatello, Idaho..... 85
at Topaz, Idaho..... 84

Page

Portneuf River Basin, Idaho, gaging-station records in..... 84-86
Powder River at Salisbury, Oreg..... 200
near Robinette, Oreg..... 201
Powder River Basin, Oreg., discharge measurement in..... 242
gaging-station records in.....200-201
Publications on stream flow by Geological Survey..... 4-7,9
by State agencies..... 7-8
Pullman, Wash., Missouri Flat Creek at. 239
South Fork of Palouse River at..... 238
South Fork of Palouse River near..... 237

Rexburg, Idaho, Henrys Fork near..... 53
Richfield, Idaho, Big Wood River near.. 105
Lincoln canal near..... 110
Little Wood River near..... 113
Magic Reservoir near..... 104
Riordan Creek, Idaho, discharge measurements of..... 242
Riverside, Oreg., Malheur River near... 157
Robinette, Oreg., Powder River near.... 201
Rock Creek near Twin Falls, Idaho..... 97
Rockwell bypass canal, Idaho, discharge measurements of..... 241
Rogerson, Idaho, Salmon River Canal Co. canal near..... 100
Salmon River Canal Co. Reservoir near 99
Rondowa, Oreg., Grande Ronde River at.. 223
Run-off in inches, definition of..... 1
Rush Creek at Cambridge, Idaho..... 189

St. Anthony, Idaho, Henrys Fork at..... 51
Teton River near..... 63
Salisbury, Oreg., Powder River at..... 200
Salmon, Idaho, Lemhi River at..... 211
Salmon River at..... 206
Salmon Falls Creek near San Jacinto, Nev..... 98
Salmon Falls Creek Basin, Idaho-Nev., gaging-station records in.....98-100
Salmon River at Salmon, Idaho..... 206
at Stanley, Idaho..... 203
at Whitebird, Idaho..... 207
East Fork of, discharge measurement of..... 242
East Fork of South Fork of, at Stibnite, Idaho..... 216
near Stibnite, Idaho..... 217
near Yellow Pine, Idaho..... 218
Middle Fork of, near Cape Horn, Idaho 212
near Challis, Idaho..... 205
near Clayton, Idaho..... 204
South Fork of, near Knox, Idaho..... 214
near Warren, Idaho..... 215
Yankee Fork of, near Clayton, Idaho.. 209
Salmon River Basin, Idaho, discharge measurements in..... 242
gaging-station records in.....203-221
Salmon River Canal Co. canal near Rogerson, Idaho..... 100
Salmon River Canal Co. Reservoir near Rogerson, Idaho..... 99
Salt River at Wyoming-Idaho State line. 37
near Smoot, Wyo..... 36
Salt River Basin, Wyo., gaging-station records in..... 36-39
San Jacinto, Nev., Salmon Falls Creek near..... 98
Second-feet per square mile, definition of..... 1
Second-foot, definition of..... 1
Second-foot-day, definition of..... 1
Selway River near Lowell, Idaho..... 231
Sharp ditch near Mackay, Idaho..... 83
Shawnee, Wash., Fourmile Creek at..... 240
Shelley, Idaho, Snake River near..... 17
Shoshone, Idaho, Lincoln canal near.... 111
Little Wood River at..... 114
Silver Creek near Picabo, Idaho..... 115
Smoot, Wyo., Cottonwood Creek near..... 38
Salt River near..... 36
Snake River at King Hill, Idaho....30, pl.1,A
at Milner, Idaho..... 25
at Moran, Wyo..... 13
at Neeley, Idaho..... 22
at Oxbow, Oreg..... 33
at Weiser, Idaho..... 32
below Lower Salmon Falls, near Hagerman, Idaho..... 29

	Page
Snake River, diversions from, between Heise and Shelley gaging stations, Idaho	16
diversions from, between Shelley and Clough Ranch gaging stations, Idaho	18
near Blackfoot, Idaho	19
near Clarkston, Wash.	34, pl.1,C
near Hagerman, Idaho	28
near Heise, Idaho	15
near Irwin, Idaho	14
near Kimberly, Idaho	26
near Minidoka, Idaho	24
near Murphy, Idaho	31, pl.1,B
near Shelley, Idaho	17
near Twin Falls, Idaho	27
Snake River main stem, gaging-station records on	12-34
South Side Minidoka canal near Minidoka, Idaho	88
South Side Twin Falls canal at Milner, Idaho	96
Spalding, Idaho, Clearwater River at	233
Spencer, Idaho, Beaver Creek near	69
Squirrel, Idaho, diversions from Fall River above gaging station near	56
Fall River near	57
Stage-discharge relation, definition of	1
Stanley, Idaho, Salmon River at	203
Valley Creek at	208
Starkey, Idaho, Weiser River at	178
Stibnite, Idaho, East Fork of South Fork of Salmon River at	216
East Fork of South Fork of Salmon River near	217
Stinkingwater Creek, Oreg., discharge measurements of	242
Strawberry Creek near Bedford, Wyo.	39
Sunnyside Ditch Co. canal, Idaho, discharge measurement of	242
Tamarack, Idaho, Boulder Creek near	221
Lost Creek near	185
Lost Valley Reservoir near	184
Mud Creek near	220
Weiser River at	177
Terms, definition of	1
Terreton, Idaho, Mud Lake near	66
Teton River, diversions from, between St. Anthony gaging station and mouth, Idaho	64
near Driggs, Idaho	61
near St. Anthony, Idaho	63
Teton River near Tetonia, Idaho	62
Tetonia, Idaho, Teton River near	62
Thorn Creek spillway near Gooding, Idaho	113
Topaz, Idaho, Portneuf River at	84
Trapper Creek near Oakley, Idaho	91
Twin Falls, Idaho, Rock Creek near	97
Snake River near	27
Twin Springs, Idaho, Boise River near	132
Union, Oreg., Catherine Creek near	224
Unity Reservoir near Unity, Oreg	197
Valley Creek at Stanley, Idaho	208
Wallowa, Oreg., Bear Creek near	229
Wallowa Falls power-plant tailrace near Joseph, Oreg	226
Wallowa River, East Fork of, near Joseph, Oreg	225
Warm River, Idaho, Henrys Fork at	48
Warm Spring Creek, east channel of, near Mackay, Idaho	81
west channel of, near Mackay, Idaho	82
Warmsprings Reservoir, Oreg	159
Warren, Idaho, South Fork of Salmon River near	215
Weiser, Idaho, Crane Creek near	194
Mann Creek near	196
Snake River at	32
Weiser Irrigation District canal near	195
Weiser River near	181
Weiser Irrigation District canal near Weiser, Idaho	195
Weiser River at Starkey, Idaho	178
at Tamarack, Idaho	177
East Fork of, near Council, Idaho	182
Middle Fork of, near Mesa, Idaho	187
near Cambridge, Idaho	180
near Council, Idaho	179
near Weiser, Idaho	181
West Fork of, near Fruitvale, Idaho	183
Weiser River Basin, Idaho, discharge measurements in	242
gaging-station records in	177-196
Whitebird, Idaho, Salmon River at	207
Wickahoney Creek near Bruneau, Idaho	123
Wild Horse Reservoir near Gold Creek, Nev	125
Work, division of	10-11
scope of	1
Yellow Pine, Idaho, East Fork of South Fork of Salmon River near	218
Johnson Creek at	219