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UNITED STATES DEPARTMENT OF THE INTERIOR

SURFACE WATER SUPPLY *of the* UNITED STATES 1933

PART 12
NORTH PACIFIC SLOPE BASINS
B. SNAKE RIVER BASIN

Prepared in cooperation with the States of
IDAHO, OREGON, WASHINGTON, and WYOMING

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 753

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

Water-Supply Paper 753

SURFACE WATER SUPPLY *of the* UNITED STATES

1933

PART 12

NORTH PACIFIC SLOPE BASINS

B. SNAKE RIVER BASIN

NATHAN C. GROVER, Chief Hydraulic Engineer
G. H. CANFIELD, LYNN CRANDALL, ROBERT FOLLANSBEE
T. R. NEWELL, G. L. PARKER, and A. B. PURTON
District Engineers

Prepared in cooperation with the States of
IDAHO, OREGON, WASHINGTON, and WYOMING

Water Resources Branch,
Geological Survey
Box 3106, Capitol Station
Oklahoma City, Okla.

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1935

For sale by the Superintendent of Documents, Washington, D.C. - - - Price 15 cents (paper cover)

CONTENTS

ILLUSTRATION

SURFACE WATER SUPPLY OF SNAKE RIVER BASIN, 1933

AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of flow made on streams in the United States during the year ending September 30, 1933.

The data presented in these reports were collected by the United States Geological Survey under the following authority contained in the organic law (20 Stat. L., p. 394):

Provided, That this officer [the Director] shall have the direction of the Geological Survey and the classification of public lands and examination of the geological structure, mineral resources, and products of the national domain.

The work was begun in 1888 in connection with special studies relating to irrigation. Since the fiscal year ending June 30, 1895, successive appropriation bills passed by Congress have carried the following items:

For gaging the streams and determining the water supply of the United States, and for the investigation of underground currents and artesian wells, and for the preparation of reports upon the best methods of utilizing the water resources.

Annual appropriations for the fiscal years ending June 30, 1895-1934

1895	$12,500.00	1911–17	$150,000.00	1928	$147,000.00
1896	24,500.00	1918	175,000.00	1929	270,500.00
1897–99	50,000.00	1919	148,244.10	1930	275,000.00
1900	70,000.00	1920	175,000.00	1931	565,000.00
1901–2	100,000.00	1921–23	180,000.00	1932	711,000.00
1903–6	200,000.00	1924–25	170,000.00	1933	600,000.00
1907	150,000.00	1926	165,000.00	1934	[1] 540,000.00
1908–10	100,000.00	1927	151,000.00		

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

Measurements of stream flow have been made at about 6,680 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1933, 2,800 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at other points. In connection with this work, data were also collected in regard to precipitation, evaporation, storage reservoirs, river profiles, and water power in many sections of the country and will be made available in water-supply papers from time to time.

[1] Only $340,000 available for expenditure.

DEFINITION OF TERMS

The volume of water flowing in a stream—the "run-off" or "discharge"—is expressed in various terms, each of which has become associated with a certain class of work. These terms may be divided into two groups—(1) those that represent a rate of flow, as second-feet, gallons per minute, miner's inches, and discharge in second-feet per square mile, and (2) those that represent the actual quantity of water, as run-off in inches, acre-feet, and millions of cubic feet. The principal terms used in this series of reports are second-feet, second-feet per square mile, run-off in inches, and acre-feet. They may be defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of water flowing in a channel of rectangular cross section 1 foot wide and 1 foot deep at an average velocity of 1 foot per second. It is generally used as a fundamental unit from which others are computed.

"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 flowing from it in a given period were uniformly distributed on the surface. It is used for comparing run-off with rainfall, which is usually expressed in inches.

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

The following terms not in common use are here defined:

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

"Control", a term used to designate the natural section or stretch of the channel or artificial structure below the gage which determines the stage-discharge relation at the gage.

EXPLANATION OF DATA

The data presented in this report cover the year beginning October 1, 1932, and ending September 30, 1933. At the beginning of January in most parts of the United States much of the precipitation in the preceding 3 months is stored in the form of snow or ice, or in ponds, lakes, and swamps, or as underground water, and this stored water passes off in the streams during the spring break-up. At the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore, the run-off for the year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a staff or chain 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

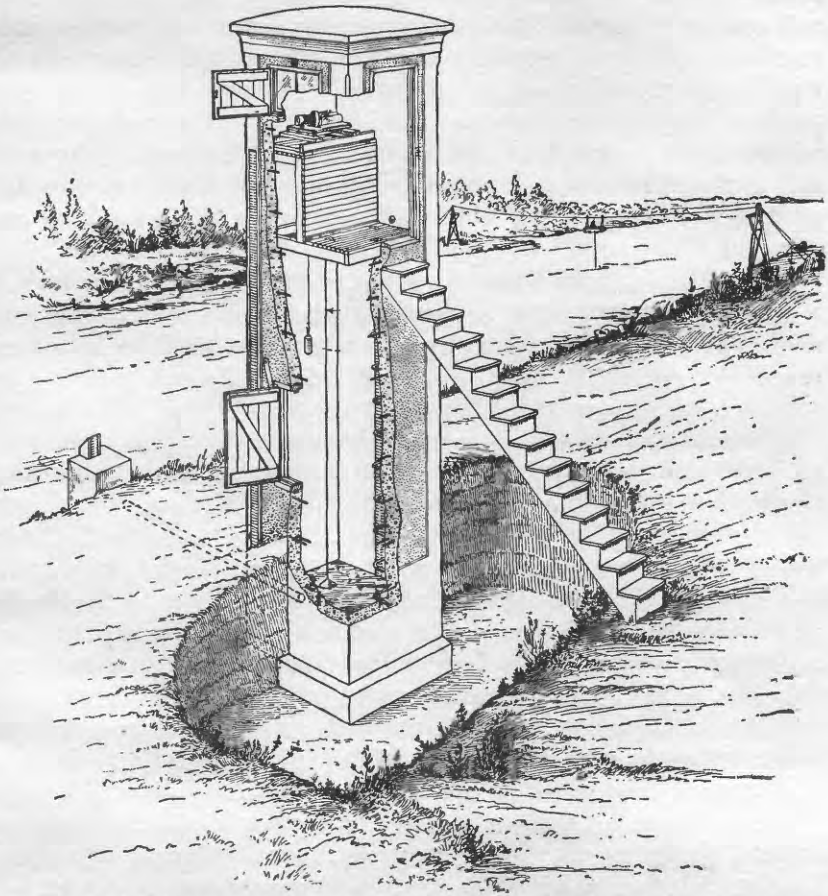

FIGURE 1.—Typical river-measurement station showing concrete well and house for water-stage recorder and staff gages, cable, and car.

outlined in standard textbooks on the measurement of river discharge. A typical gaging station, equipped with water-stage recorder and measuring cable and car, is shown in figure 1.

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

The data presented for each gaging station in the area covered by this report 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.

The description of the station gives information in regard to the location and type of gage, diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Information under "Discharge" gives the maximum and minimum recorded discharges and the average discharge. The maximum does not necessarily represent the crest discharge unless a water-stage recorder was in operation or a nonrecording gage was read at the time of the crest. Likewise, the minimum may not represent the lowest discharge. The average discharge is the average of the mean annual discharges for the years indicated. It is given only for stations for which there are 10 or more complete years of record.

The table of daily discharge gives, in general, the discharge in second-feet corresponding to the daily gage height, which may be a once-daily reading or the mean of twice-daily readings of a nonrecording gage, or the mean daily gage height obtained from a water-stage recorder graph.

At stations on streams subject to sudden or rapid diurnal fluctuation the discharge obtained from the rating table and the mean daily gage height may not be the true mean discharge for the day. If such stations are equipped with water-stage recorders, the mean daily discharge may be obtained by averaging discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Maximum" gives the maximum daily discharge, and not the discharge when the water surface was at crest height. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" is the average flow in cubic feet per second during the month. On this average flow are based computations recorded in the remaining columns, which are defined on page 2.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily (1) on the permanence of the stage-discharge relation and (2) on 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 percent or more.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and run-off in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall is less than 20 inches.

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.

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

PUBLICATIONS

Investigation of water resources by the United States Geological Survey has consisted in large part of measurements of the volume of flow of streams and studies of the conditions affecting that flow, but it has comprised also investigation of such closely allied subjects as irrigation, water storage, water power, underground waters, and quality of waters. Most of the results of these investigations have been published in the series of water-supply papers, but some have appeared in the bulletins, professional papers, monographs, and annual reports.

The results of stream-flow measurements are now published annually in 12 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. North Pacific slope basins, in three parts:
    A, Pacific slope basins in Washington and upper Columbia River Basin.
    B, Snake River Basin.
    C, Pacific slope basins in Oregon and lower Columbia River Basin.

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

Augusta, Maine, State House.
Boston, Mass., 945 Post Office Building.
Hartford, Conn., 203 Federal Building.
Albany, N.Y., 353 Broadway.
Trenton, N.J., 228 Federal Building.
Harrisburg, Pa., 492 Education Building.
Charlottesville, Va., University of Virginia.
South Charleston, W.Va., Naval Ordnance Plant.
Asheville, N.C., 220 Post Office Building.
Columbia, S.C., 801 National Loan & Exchange Bank Building.
Ocala, Fla., Post Office Building.
Montgomery, Ala., Post Office Building.
Chattanooga, Tenn., 217 Post Office Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University
Indianapolis, Ind., 319 Federal Building.
Urbana, Ill., 302 University New Agricultural Building.
Madison, Wis., 337N State Capitol.
St. Paul, Minn., 632 State Office Building.
Iowa City, Iowa, 402 Hydraulic Laboratory, University of Iowa.
St. Louis, Mo., 3 Customhouse.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
Topeka, Kans., 305 Federal Building.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Highway Building.
Santa Fe, N.Mex., State Capitol.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo., 403 Post Office Building.
Salt Lake City, Utah, 303 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, 429 Federal Building.
Helena, Mont., 421 Federal Building.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.
Los Angeles, Calif., 510 Eighth and Figueroa Building.
Honolulu, Hawaii, 225 Federal Building.

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

Stream-flow records have been obtained at about 6,680 points in the United States, and the data obtained have been published in the reports tabulated as follows:

Stream-flow data in reports of the United States 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	Mean discharge in second-feet	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, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas River.	1897.
W 16	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28	Measurements, ratings, and gage heights, Arkansas River and western United States.	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.
W 82 to 85	Complete data	1902.
W 97 to 100	do	1903.
W 124 to 135	do	1904.
W 165 to 178	do	1905.
W 201 to 214	do	1906.
W 241 to 252	do	1907–8.
W 261 to 272	do	1909.
W 281 to 292	do	1910.
W 301 to 312	do	1911.
W 321 to 332	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919–20.
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 601 to 614	do	1925.
W 621 to 634	do	1926.
W 641 to 654	do	1927.
W 661 to 674	do	1928.
W 681 to 694	do	1929.
W 696 to 709	do	1930.
W 711 to 724	do	1931.
W 726 to 739	do	1932.
W 741 to 754	do	1933.

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 in the same relative order as the regular gaging stations. An index of the reports containing records obtained prior to 1904 has been published in Water-Supply Paper 119.

The following table gives, by years and drainage basins, the numbers of the papers on surface-water supply published from 1899 to 1933. The data for any particular station will, as a rule, be found in the reports covering the years during which the station was maintained. For example, data from 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

Numbers of water-supply papers containing results of stream measurements, 1899–1933

[For basins included see pp. 5–6]

Year	1	2	3	4	5	6	7	8	9	10	11	12–A	12–B	12–C
1899 [a]	35	[b] 35, 36	36	36	36	[c] 36, 37	37	37	[d] 37, 38	38, [e] 39	38, [f] 39	38	38	38
1900 [g]	47, [h] 48	48	48, [i] 49	49	49	49, [j] 50	50	50	50	51	51	51	51	51
1901	65, 75	65, 75	65, 75	65, 75	[k] 65, 66, 75	66, 75	[k] 65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902	82	[b] 82, 83	83	[l] 82, 83	[k] 83, 85	84	[k] 83, 84	84	85	85	85	85	85	85
1903	97	[b] 97, 98	98	97	[k] 98, 99, [m] 100	99	[k] 98, 99	99	100	100	100	100	100	100
1904	[n] 124, [o] 125, [p] 126	[p] 126, 127	128	129	[k] 128, 130	130, [q] 131	[k] 128, 131	132	133	133, [r] 134	134	135	135	135
1905	[n] 165, [o] 166, [p] 167	[p] 167, 168	169	170	171	172	[k] 169, 173	174	175, [s] 177	176, [r] 177	177	178	178	[t] 177, 178
1906	[n] 201, [o] 202, [p] 203	[p] 203, 204	205	206	207	208	[k] 205, 209	210	211, [s] 213	212, [r] 213	213	214	214	214
1907–8	241	242	243	244	245	246	247	248	249	250, [r] 251	251	252	252	252
1909	261	262	263	264	265	266	267	268	269	270, [r] 271	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

[a] Rating tables and index to Water-Supply Papers 35–39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in Twenty-first 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. Tables of monthly discharge for 1900 in Twenty-second Annual Report, part 4.
[h] Wissahickon and Schuylkill Rivers to James River.
[i] Scioto River.
[j] Loup and Platte Rivers near Columbus, Nebr., and all tributaries below junction with Platte River.
[k] Tributaries of Mississippi River from east.
[l] Lake Ontario and tributaries to St. Lawrence River proper.
[m] Hudson Bay only.
[n] New England rivers only.
[o] Hudson River to Delaware River, inclusive.
[p] Susquehanna River to Yadkin River, inclusive.
[q] Platte and Kansas Rivers.
[r] The Great Basin in California, except Truckee and Carson River Basins.
[s] Below junction with Gila River.
[t] Rogue, Umpqua, and Siletz Rivers only.

COOPERATION

The work in the several States was done under cooperative agreements as follows: In Idaho with the commissioner of reclamation, R. W. Faris; in Oregon with the State engineer, Charles E. Stricklin; in Washington with the State Department of Conservation and Development, Erle J. Barnes succeeded by E. F. Banker as director and C. J. Bartholet, supervisor of hydraulics; and in Wyoming with the State engineers, John A. Whiting, J. B. True, and E. W. Burritt, successively.

Acknowledgments are due also to the Corps of Engineers, United States Army, United States Office of Indian Affairs, United States Bureau of Reclamation, United States Weather Bureau, and United States Forest Service for financial assistance in collecting the records published herein.

Assistance in collecting records was also rendered by the following municipalities, organizations, corporations, and individuals: In Idaho by the cities of Idaho Falls, Boise, and Pocatello, Idaho Power Co., Weiser Irrigation District, Lake Irrigation District, Washington Water Power Co., Yellow Pine Co., Mesa Orchards Co., Idaho Water District No. 36, Twin Falls Canal Co., North Side Canal Co., Burley Irrigation District, Minidoka Irrigation District, Utah Power & Light Co., water commissioners for Big Lost River and Mud Lake, and local water masters for the Little Lost, Big Wood, Little Wood, Boise, and Weiser Rivers; in Oregon by the Warmsprings Irrigation District, Malheur, Baker, Union, and Wallowa Counties, Eastern Oregon Light & Power Co., and Inland Power & Light Co.; in Washington by the Washington Water Power Co.; and in Wyoming by B. O. Gardner, water commissioner.

DIVISION OF WORK

The data for stations on the Snake River at and above Milner, Idaho, on tributaries that enter that stream above Idaho Falls (except in the Salt River Basin in Wyoming), and on the Blackfoot River near Blackfoot, Idaho, were collected and prepared for publication under the direction of Lynn Crandall, district engineer, assisted by W. V. Iorns, Melvin Luke, G. H. Powell, W. N. McConnel, and Miss A. B. Kammers.

The data for all other stations in Idaho, the station on the Snake River at Oxbow, Oreg., and that in the Salmon Falls Creek Basin in Nevada were collected and prepared for publication under the direction of T. R. Newell, district engineer, assisted by F. M. Bell, F. C. Craig, J. A. Allis, P. C. Benedict, W. I. Travis, J. R. Throckmorton, L. R. Sawyer, E. G. Bailey, Miss E. H. Haugse, Mrs. Josephine Ruick Bailey, Miss Doris C. Randall, Miss Neta Winsor,

Miss Tekla R. Kuehl, J. G. Hannum, H. W. Johns, and Richard Hearne.

The data for the station on the Owyhee River at Mountain City, Nev., were collected and prepared for publication under the direction of A. B. Purton, district engineer, assisted by M. T. Wilson, C. A. Wheeler, L. R. Margetts, Miss Lysle Christensen, and Mrs. Gladys Hilton.

For stations in Oregon, the data for the Powder River near Robinette, the Imnaha River at Imnaha, the Grande Ronde River at Rondowa, the East Fork of the Wallowa River near Joseph, the Wallowa Falls power-plant tailrace, and Joseph Creek at Chico were collected and prepared for publication under the direction of G. H. Canfield, district engineer, assisted by K. N. Phillips, B. S. Barnes, A. H. Williams, A. B. Goodwin, C. A. Young, W. T. Miller, A. R. Peracca and Miss Belle Irwin. For other stations in Oregon, except that on the Snake River at Oxbow, data were collected by the State of Oregon. Records computed in the office of the State engineer were checked and prepared for publication by G. H. Canfield, district engineer, assisted by K. N. Phillips and A. H. Williams.

The data for the stations on the Snake River at Riparia and Asotin Creek near Asotin, in Washington, were collected and prepared for publication under the direction of G. L. Parker, district engineer, assisted by D. J. F. Calkins, H. C. Woster, Frank Sternitz, B. M. Tanner, L. I. Meyer, A. P. Martinson, J. W. Allan, L. F. Maca, and R. F. Bullard.

The data for the stations in the Salt River Basin in Wyoming were collected and prepared for publication under the direction of Robert Follansbee, district engineer, assisted by J. H. Baily, H. P. Eisenhuth, L. F. Hanks, M. C. Boyer, S. C. Moore, Miss Nellie L. Esterly, and Mrs. Elsie L. Yeatman.

The records were reviewed and manuscript assembled by C. V. Youngquist.

GAGING-STATION RECORDS

SNAKE RIVER

JACKSON LAKE AT MORAN, WYO.

LOCATION.—Staff gage in sec. 18, T. 45 N., R. 114 W., a short distance above outlet gates of Jackson Lake. Zero of gage is 6,700 feet above mean sea level.

RECORDS AVAILABLE.—June 1909 to September 1933. Records for 1909 and 1910 fragmentary.

REMARKS.—Jackson Lake impounds water for the irrigation of lands in Snake River Valley, Idaho. It has a capacity of 847,000 acre-feet between altitudes of 6,730 and 6,769 feet, mean sea-level datum.

Contents, in acre-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	376,290	394,690	413,470	434,660	464,910	491,320	510,270	535,870	660,510	847,480	601,660	349,040
2	376,730	395,140	413,920	435,560	465,820	492,240	510,730	538,210	673,600	847,000	593,590	343,610
3	377,170	395,810	414,360	436,460	466,740	493,160	511,200	542,890	688,230	847,000	585,050	338,190
4	377,620	396,250	414,810	437,590	467,660	494,090	511,900	545,000	700,930	845,440	575,570	332,110
5	378,060	396,920	415,260	438,950	468,580	495,470	512,360	547,110	713,210	842,140	564,970	326,050
6	378,500	398,710	415,940	440,090	469,490	497,320	513,060	549,210	725,520	838,060	556,490	319,610
7	378,940	399,380	416,390	441,230	470,410	497,780	513,520	550,850	738,870	834,250	545,940	312,530
8	380,940	400,060	417,060	441,910	470,870	498,010	514,220	552,490	748,280	829,670	534,700	304,390
9	382,930	401,400	417,520	442,820	471,100	498,470	514,680	553,660	758,980	825,600	525,610	296,750
10	383,600	402,070	417,970	443,270	471,320	498,700	515,150	555,310	770,190	821,520	516,310	287,840
11	384,040	402,510	418,420	443,950	471,780	499,160	515,610	556,490	782,720	816,720	507,480	279,210
12	384,480	403,180	418,870	444,640	472,930	499,400	516,780	558,140	796,260	810,660	498,010	271,880
13	385,150	403,860	419,320	445,320	473,620	499,860	517,240	560,260	807,130	804,350	488,780	266,020
14	386,260	404,530	419,540	446,000	474,530	500,320	517,700	561,910	817,740	796,520	479,340	261,020
15	387,140	405,200	420,000	447,140	475,450	500,780	518,400	563,320	826,100	786,730	470,640	256,680
16	387,580	405,870	420,450	448,280	477,280	501,240	518,630	564,970	833,740	776,200	462,160	252,960
17	388,030	406,540	420,900	449,410	479,120	501,700	519,100	568,740	840,350	765,710	453,730	249,450
18	388,470	407,210	421,580	450,780	480,720	502,160	519,800	572,270	845,700	755,500	445,090	245,930
19	388,910	407,880	422,700	452,140	482,320	503,090	520,490	576,040	847,480	745,050	436,910	242,220
20	389,360	408,330	424,280	453,500	483,700	503,780	521,660	578,650	848,510	734,420	428,340	238,140
21	389,800	408,780	424,960	454,870	485,080	504,240	522,350	582,440	850,050	722,290	420,000	234,060
22	390,240	409,220	425,640	456,010	486,010	504,700	523,520	588,370	849,020	710,760	411,240	229,570
23	390,680	409,670	426,090	456,920	486,930	505,160	524,210	594,780	847,740	698,970	402,510	224,070
24	391,130	409,890	426,540	458,050	487,860	505,860	524,910	599,050	845,950	687,740	394,690	218,820
25	391,570	410,340	428,120	459,190	489,010	506,550	525,610	602,860	845,190	676,760	388,030	213,590
26	392,010	410,790	429,470	459,870	489,700	507,010	526,300	610,740	845,950	665,360	382,490	209,170
27	392,460	411,240	431,050	460,550	490,160	507,710	527,000	618,380	847,230	655,670	376,950	205,140
28	392,900	411,680	432,180	461,470	490,620	508,180	527,930	623,400	849,280	646,480	370,750	203,340
29	393,350	412,350	432,850	462,390	-------	508,640	530,490	631,090	849,280	635,900	364,390	203,540
30	393,790	412,800	433,300	463,300	-------	509,110	533,300	639,270	848,760	623,880	359,130	204,140
31	394,240	-------	433,760	463,990	-------	509,800	-------	648,400	-------	611,930	354,080	-------

SNAKE RIVER NEAR MORAN, WYO.

LOCATION.—Water-stage recorder in sec. 17, T. 45 N., R. 114 W., 1½ miles east of Moran and Jackson Lake Dam and 3½ miles above Pacific Creek.

DRAINAGE AREA.—820 square miles.

RECORDS AVAILABLE.—September 1903 to September 1933.

DISCHARGE.—Maximum during year, 7,530 second-feet July 22 (gage height, 6.88 feet); minimum, 15 second-feet Feb. 10–16 (gage height, 0.0[illegible] foot).

1903–33: Maximum, 15,100 second-feet June 12, 1918 (gage height, 10.41 feet); practically no flow during a few days in 1907 and 1909. Average, 30 years (1903–33), 1,470 second-feet.

REMARKS.—Records excellent. Gates at dam were closed Oct. 1 to June 5 and Sept. 29–30. Flow controlled by operation of outlet gates at Jackson Lake Dam.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	26	19	18	17	17	23	63	84	3,280	5,820	3,280
2	33	26	19	18	17	17	23	65	80	2,870	5,700	3,350
3	33	28	19	18	17	17	23	61	90	2,610	5,700	3,540
4	33	28	19	18	17	17	23	63	74	3,560	5,800	3,820
5	33	28	18	18	17	17	23	63	74	4,090	5,970	3,940
6	33	28	18	17	17	17	23	65	152	4,080	6,130	4,030
7	33	28	18	17	17	17	22	56	1,180	4,210	6,040	4,420
8	33	26	18	17	17	17	22	46	1,520	4,270	5,830	4,850
9	38	26	17	17	17	17	23	44	1,540	4,020	5,710	4,910
10	36	26	17	17	15	17	23	43	1,560	4,270	5,610	5,090
11	35	25	17	17	15	17	23	44	1,600	4,640	5,710	4,700
12	33	25	17	17	15	17	23	46	2,520	4,800	5,830	4,100
13	33	25	17	17	15	17	23	52	4,000	5,230	5,850	3,330
14	33	25	17	17	15	17	20	48	4,620	6,570	5,710	3,070
15	35	25	17	17	15	17	20	46	5,440	6,850	5,180	2,990
16	33	25	17	17	15	17	23	50	5,440	6,940	5,150	2,860
17	33	25	17	17	17	17	23	59	5,440	7,000	5,120	2,590
18	32	25	17	17	17	17	23	63	5,420	6,960	5,270	2,450
19	32	25	17	17	17	17	29	65	5,410	6,900	5,250	2,450
20	30	24	17	18	17	17	29	67	5,370	6,900	5,020	2,450
21	30	23	17	18	17	17	33	56	5,990	7,280	5,060	2,490
22	30	23	17	18	17	17	33	54	6,440	7,530	5,170	2,950
23	30	22	17	18	17	17	33	59	6,350	7,320	4,700	3,510
24	30	22	17	18	17	20	38	52	5,390	7,100	4,180	3,230
25	28	20	17	18	17	20	41	46	3,790	6,960	3,910	2,950
26	28	20	17	18	17	20	43	56	2,680	6,810	3,790	2,570
27	26	20	17	17	17	20	46	59	2,520	6,080	3,790	1,660
28	26	20	17	17	17	20	59	44	3,290	6,040	3,760	731
29	26	20	17	17	-------	20	70	48	3,840	6,600	3,630	43
30	26	19	18	17	-------	23	67	65	3,820	7,320	3,360	40
31	26	-------	18	17	-------	23	-------	84	-------	6,810	3,220	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	38	26	31.4	1,930
November	28	19	24.3	1,450
December	19	17	17.5	1,080
January	18	17	17.4	1,070
February	17	15	16.5	916
March	23	17	18.0	1,110
April	70	20	30.9	1,840
May	84	43	55.9	3,440
June	6,440	74	3 190	190,000
July	7,530	2,610	5.670	349,000
August	6,130	3,220	5.060	311,000
September	5,090	40	3.080	183,000
The year	7,530	15	1,450	1,050,000

SNAKE RIVER NEAR HEISE, IDAHO

LOCATION.—Water-stage recorder in sec. 5, T. 3 N., R. 41 E., 3 miles above Heise. Zero of gage is 5,016.90 feet above mean sea level.

RECORDS AVAILABLE.—September 1910 to September 1933.

DISCHARGE.—Maximum during year, 25,600 second-feet June 16 (gage height, 6.10 feet); minimum, about 2,100 second-feet during ice-affected period in February.

1910–33: Maximum, about 60,000 second-feet May 19, 1927 (gage height, about 14.00 feet); minimum, 1,500 second-feet Dec. 23, 1930 (gage height, −1.00 foot). Average, 14 years (1910–14, 1923–33), 6,920 second-feet.

REMARKS.—Records good except those for periods of ice effect, Dec. 16 to Jan. 11, Jan. 15–20, Feb. 8 to Mar. 7, which are poor. Gage read 3 times weekly Nov. 9 to Apr. 15, and discharge interpolated on intervening days. Station above all irrigation diversions from the main river except the Riley Ditch (capacity, about 30 second-feet), which diverts 1 mile above gage. Some diversion from tributaries above station in both Wyoming and Idaho. Flow regulated by storage in Jackson Lake.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,450	3,080	2,660		2,560		2,380	6,890	15,700	12,600	10,600	6,320
2	3,350	3,130	2,700		2,640		2,400	6,320	18,000	11,800	9,800	6,240
3	3,300	3,130	2,740		2,470		2,420	6,380	19,200	10,800	9,660	6,270
4	3,240	3,090	2,740		2,300		2,440	6,210	18,900	10,300	9,470	6,290
5	3,180	3,040	2,740		2,320	2,200	2,470	6,100	18,200	10,500	9,430	6,570
6	3,180	2,970	2,740	2,500	2,350		2,500	6,210	18,100	11,000	9,470	6,720
7	3,180	2,990	2,700		2,370		2,560	5,770	17,400	10,900	9,560	6,660
8	3,220	2,940	2,660			2,210	2,500	5,430	16,700	11,000	9,530	6,980
9	3,370	2,990	2,590			2,210	2,500	5,010	16,600	11,000	9,500	7,510
10	3,350	3,040	2,520			2,240	2,500	4,810	16,600	10,700	9,240	7,540
11	3,260	2,890	2,400		2,100	2,260	2,650	4,680	18,400	10,500	9,040	7,720
12	3,200	2,740	2,280	2,470		2,260	2,600	4,580	20,700	10,700	8,940	7,600
13	3,180	2,790	2,160	2,500		2,260	2,560	4,540	22,000	10,600	9,040	7,120
14	3,150	2,840	2,160	2,580		2,260	2,560	4,740	24,400	10,500	9,010	6,350
15	3,150	2,900	2,160	2,580		2,300	2,560	5,140	24,700	11,600	9,010	6,070
16	3,120	2,970	2,200	2,580		2,330	2,560	5,880	25,600	11,700	8,400	6,100
17	3,080	3,040	2,200	2,580		2,350	2,710	6,860	24,900	11,800	8,210	5,910
18	3,040	3,040		2,580		2,370	3,020	7,750	24,600	11,800	8,180	5,610
19	3,040	3,040		2,580		2,320	3,410	8,120	23,700	11,600	8,400	5,270
20	3,030	3,010		2,580		2,260	3,490	8,150	22,200	11,400	8,690	5,240
21	3,020	2,970		2,590		2,210	3,350	8,940	20,700	11,200	8,280	5,220
22	3,010	2,940		2,540	2,200	2,180	3,370	10,300	19,900	11,400	8,240	5,170
23	3,110	2,920		2,490		2,160	3,740	10,500	19,600	11,600	8,310	5,320
24	3,220	2,900	2,500	2,440		2,160	4,410	9,730	18,700	11,400	8,030	6,150
25	3,200	2,880		2,500		2,170	5,140	9,500	17,300	11,000	7,420	6,320
26	3,180	2,870		2,560		2,170	5,610	10,500	14,900	10,900	7,180	6,040
27	3,220	2,830		2,480		2,180	6,270	11,700	13,100	10,700	7,120	5,660
28	3,200	2,780		2,410		2,190	7,220	11,500	12,400	10,100	7,040	5,320
29	3,150	2,740		2,430		2,260	8,180	11,100	13,000	9,870	6,950	4,250
30	3,130	2,700		2,450		2,340	7,750	11,600	13,200	10,100	6,800	3,470
31	3,110			2,470		2,360		13,500		10,900	6,550	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,450	3,010	3,180	196,000
November	3,130	2,700	2,940	175,000
December	2,740	2,160	2,500	154,000
January	2,820		2,510	154,000
February	2,640		2,230	124,000
March	2,370	2,160	2,240	138,000
April	8,180	2,380	3,590	214,000
May	13,500	4,540	7,690	473,000
June	25,600	12,400	19,000	1,130,000
July	12,600	9,870	11,000	676,000
August	10,600	6,550	8,550	526,000
September	7,720	3,470	6,100	363,000
The year	25,600		5,970	4,320,000

DIVERSIONS FROM SNAKE RIVER BETWEEN HEISE AND SHELLEY GAGING STATIONS, IDAHO

Between Heise and Shelley gaging stations 50 separate canals divert water from Snake River for irrigation. Of these canals, 40 divert above the mouth of Henrys Fork and 10 below. Records showing the combined discharge of all canals during a portion of each irrigation season from 1919 to 1933 are available. Most of these canals are equipped with staff gages read once daily; a few have water-stage recorders.

Records good except those for May, which are partly interpolated or estimated for some of the canals.

Discharge, in second-feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	284	7,210	7,060	7,460	5,240	16	1,020	9,930	8,580	6,350	4,760
2	286	7,600	6,850	6,920	5,670	17	1,180	10,000	8,590	6,340	4,650
3	330	7,880	6,620	6,890	5,520	18	1,190	10,200	8,550	6,260	4,750
4	498	7,500	6,440	6,890	5,700	19	1,160	10,200	8,490	6,300	4,590
5	837	7,560	7,590	6,840	5,520	20	1,380	10,000	8,570	6,100	4,880
6	945	7,790	8,010	6,750	5,660	21	1,630	10,100	8,480	5,870	4,900
7	957	7,740	8,030	7,160	5,640	22	2,010	10,000	8,270	5,750	4,810
8	987	7,790	8,130	7,170	5,690	23	1,940	9,990	8,210	5,840	4,970
9	829	7,680	8,090	7,070	5,610	24	2,040	9,820	8,060	5,750	4,640
10	874	8,010	8,100	6,960	5,540	25	2,660	9,670	8,120	5,750	4,100
11	817	8,380	7,980	6,970	5,730	26	2,990	9,590	8,220	5,840	4,180
12	762	8,840	8,250	6,920	5,710	27	3,610	8,920	8,260	5,380	3,940
13	732	9,380	8,300	6,860	5,300	28	4,290	8,420	8,210	5,380	3,750
14	726	9,720	8,370	6,910	4,880	29	5,250	8,180	7,710	5,480	3,320
15	956	9,900	8,510	6,870	4,810	30	6,250	8,070	7,380	5,310	3,490
						31	6,850		7,420	5,290	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	6,850	284	1,820	112,000
June	10,200	7,210	8,870	528,000
July	8,590	6,440	7,980	491,000
August	7,460	5,290	6,380	392,000
September	5,730	3,320	4,930	293,000
The period				1,820,000

NOTE.—Discharge includes that of Riley Ditch, which diverts from Snake River 1 mile above gaging station near Heise.

SNAKE RIVER NEAR SHELLEY, IDAHO

LOCATION.—Water-stage recorder in sec. 17, T. 1 N., R. 37 E., a quarter of a mile above Woodville highway bridge and 3 miles north of Shelley.

RECORDS AVAILABLE.—March 1915 to September 1933.

DISCHARGE.—Maximum during year, 19,400 second-feet June 17 (gage height, 10.40 feet); minimum, 855 second-feet Oct. 7.

1915–33: Maximum, 47,200 second-feet June 17, 1918 (gage height, 16.97 feet); minimum, 390 second-feet Oct. 7, 1931.

REMARKS.—Records excellent except those for ice period, Dec. 10 to Mar. 28, which are fair. Flow regulated by numerous canal diversions above station and by storage in Jackson Lake. Discharge estimated Dec. 7 and Sept. 24.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,000	2,560	2,740		2,750	2,650	3,440	9,560	9,560	8,670	3,750	2,210
2	1,510	2,500	2,910		2,700	2,750	3,390	8,700	11,700	8,480	3,700	2,080
3	1,160	2,480	2,720		2,600	2,850	3,260	7,830	13,500	7,540	3,600	1,760
4	1,110	2,480	2,720		2,550	2,800	3,530	7,500	14,600	6,650	3,650	1,690
5	1,010	2,510	2,740		2,500	2,720	3,580	7,250	14,400	5,000	3,650	1,540
6	880	2,630	2,680		2,480	2,670	3,720	7,250	13,600	4,520	3,580	1,590
7	855	2,680	2,680		2,200	2,600	3,530	7,000	13,200	4,500	3,650	1,760
8	999	2,810	1,500		1,970	2,600	3,580	6,450	12,400	4,230	3,440	1,810
9	1,080	2,780	1,100		1,700	2,700	3,580	6,120	12,300	4,360	3,350	1,880
10	1,380	2,870	1,000	2,900	1,400	2,750	3,480	5,640	11,800	4,420	3,390	2,420
11	1,760	2,930	1,250		1,400	2,780	3,300	5,210	11,900	4,100	3,220	2,930
12	1,800	2,970	1,270		1,400	2,830	3,170	4,890	13,300	3,800	2,950	3,200
13	1,860	2,910	1,350		1,550	2,880	3,090	4,750	14,600	3,600	2,870	3,220
14	1,900	3,090	1,450		1,720	2,930	3,090	4,750	15,800	3,350	3,010	2,970
15	1,850	3,090	1,700		1,950	2,980	3,050	4,800	17,900	3,350	2,910	2,720
16	1,810	3,090	1,800		2,050	3,000	3,030	5,210	19,200	3,370	2,830	2,620
17	1,850	3,130	1,900		2,150	3,050	3,150	6,150	19,400	4,180	2,700	2,620
18	1,830	3,150	2,100		2,250	3,060	3,530	7,500	18,000	4,200	2,600	2,530
19	1,810	3,110	2,400		2,350	3,100	4,120	8,960	18,200	4,050	2,700	2,390
20	1,920	3,070	2,600		2,400	3,100	4,440	9,370	17,600	3,840	2,950	2,110
21	1,910	3,030			2,420	3,100	4,390	9,410	16,000	3,630	3,480	1,870
22	1,920	3,050			2,440	3,050	4,200	10,200	14,000	3,510	3,460	1,720
23	2,070	3,030	2,800		2,450	2,900	4,180	11,600	12,300	3,870	3,630	1,860
24	2,220	2,890			2,470	2,900	4,500	11,900	12,300	4,250	3,530	2,410
25	2,210	2,810		2,800	2,500	2,900	5,210	10,700	11,500	4,180	3,440	2,970
26	2,250	2,740			2,520	2,900	6,020	10,000	10,200	3,820	2,630	3,670
27	2,300	2,810			2,550	2,900	6,280	10,700	8,700	3,510	2,480	3,720
28	2,420	2,850	2,900		2,590	3,050	6,930	11,200	6,310	3,200	2,680	3,650
29	2,420	2,830			-------	3,110	7,930	10,200	6,720	3,150	2,630	3,280
30	2,470	2,740			-------	3,200	9,110	8,590	8,080	3,260	2,620	2,780
31	2,530	-------	2,960		-------	3,260	-------	8,080	-------	3,510	2,530	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,530	855	1,780	109,000
November	3,150	2,480	2,850	170,000
December	----------	1,000	2,320	143,000
January	----------	----------	2,860	176,000
February	2,750	1,400	2,210	123,000
March	3,260	2,600	2,910	179,000
April	9,110	3,030	4,260	253,000
May	11,900	4,750	7,980	491,000
June	19,400	6,310	13,300	791,000
July	8,670	3,150	4,390	270,000
August	3,750	2,530	3,150	194,000
September	3,720	1,540	2,470	147,000
The year	19,400	855	4,210	3,050,000

DIVERSIONS FROM SNAKE RIVER BETWEEN SHELLEY AND CLOUGH RANCH GAGING STATIONS, IDAHO

Between Shelley and Clough ranch 15 canals divert water from Snake River for irrigation. The two largest canals are equipped with recorders; the others with staff gages read once daily. Records showing the combined discharge of these canals for a part of each irrigation season from 1919 to 1933 are available.

Records good.

Discharge, in second-feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	566	3,890	2,390	2,780	1,630	16	1,610	3,870	3,470	2,260	1,860
2	416	3,930	2,200	2,590	1,460	17	1,860	3,850	3,580	2,210	1,510
3	447	3,890	1,820	2,140	1,440	18	2,000	3,850	3,540	2,260	1,490
4	626	3,640	1,780	2,140	1,410	19	2,210	3,880	3,420	2,230	1,470
5	718	3,640	2,580	2,500	1,430	20	2,330	3,900	3,290	2,250	987
6	775	3,880	3,250	2,540	1,430	21	2,460	3,850	2,980	2,260	851
7	819	3,890	3,450	2,480	1,490	22	2,560	3,860	2,840	2,190	827
8	808	3,870	3,450	2,380	1,590	23	2,690	3,850	2,850	2,190	754
9	811	3,870	3,460	2,350	1,620	24	2,840	3,840	2,800	2,170	852
10	804	3,880	3,320	2,380	2,090	25	3,140	3,820	2,790	2,130	1,510
11	865	3,920	3,250	2,410	2,230	26	3,360	3,790	2,760	1,630	1,640
12	987	4,020	3,320	2,270	2,230	27	3,520	3,740	2,750	1,580	1,900
13	1,110	4,140	3,320	2,200	2,120	28	3,540	3,440	2,760	1,590	1,940
14	1,210	4,190	3,260	1,980	2,040	29	3,560	3,400	2,690	1,530	1,880
15	1,510	4,040	3,100	2,080	1,910	30	3,670	3,470	2,790	2,070	1,820
						31	3,760		2,780	2,080	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	3,760	416	1,860	114,000
June	4,190	3,400	3,840	228,000
July	3,580	1,780	2,970	183,000
August	2,780	1,530	2,190	135,000
September	2,230	754	1,580	94,000
The period				754,000

SNAKE RIVER AT CLOUGH RANCH, NEAR BLACKFOOT, IDAHO

LOCATION.—Water-stage recorder in sec. 31, T. 3 S., R. 34 E., a quarter of a mile below mouth of Blackfoot River and 14 miles southwest of Blackfoot.

RECORDS AVAILABLE.—June 1910 to September 1933.

DISCHARGE.—Maximum during year, 14,800 second-feet June 17 (gage height, 8.24 feet); minimum, 169 second-feet July 16, Sept. 9–10 (gage height, 0.96 foot).

1910–33: Maximum, 46,200 second-feet June 18, 1918 (gage height, 14.80 feet); minimum, 118 second-feet Aug. 25, 1919.

REMARKS.—Records excellent. Flow regulated by storage in Jackson Lake and Blackfoot-Marsh Reservoirs. Numerous irrigation diversions above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	582	2,100	2,730	2,340	2,290	2,220	3,300	8,500	4,950	5,560	520	503
2	582	2,070	2,800	2,340	2,220	2,350	3,520	8,390	6,740	6,220	681	674
3	326	2,030	2,760	2,410	2,110	2,460	3,110	7,380	8,280	5,750	1,070	526
4	253	2,030	2,730	2,470	2,170	2,350	3,110	6,880	10,300	4,990	1,100	363
5	269	2,070	2,760	2,590	2,140	2,340	3,200	6,440	10,700	3,640	1,140	269
6	286	2,140	2,620	2,590	2,100	2,280	3,340	6,270	9,680	1,620	840	182
7	317	2,240	2,630	2,460	1,940	2,240	3,290	6,220	9,290	1,270	816	175
8	317	2,340	1,350	2,490	1,570	2,140	3,230	5,980	8,790	960	912	172
9	383	2,490	808	2,550	1,400	2,300	3,300	5,490	8,250	786	816	169
10	393	2,430	660	2,570	1,150	2,360	3,230	5,100	8,110	936	772	169
11	660	2,540	824	2,600	936	2,410	3,090	4,570	7,650	896	758	215
12	627	2,630	840	2,630	928	2,470	2,900	4,200	8,650	594	607	436
13	634	2,630	960	2,620	1,040	2,510	2,780	3,830	9,740	354	520	653
14	681	2,650	1,070	2,540	1,160	2,510	2,720	3,560	10,700	226	620	816
15	716	2,750	1,260	2,590	1,440	2,600	2,730	3,300	12,500	175	695	786
16	674	2,760	1,330	2,570	1,680	2,630	2,520	3,470	13,800	169	569	653
17	660	2,930	1,520	2,600	1,780	2,510	2,550	4,060	14,800	198	463	688
18	681	3,070	1,580	2,510	1,800	2,680	2,680	4,970	14,600	414	354	888
19	716	3,070	1,870	2,470	1,870	2,730	3,140	6,340	14,300	430	299	969
20	856	3,070	2,170	2,280	1,910	2,760	3,620	7,220	13,700	414	349	1,050
21	987	3,040	2,240	2,260	2,000	2,750	3,810	7,300	12,400	363	614	1,040
22	1,080	2,970	2,440	2,350	1,930	2,600	3,720	7,510	10,800	430	987	888
23	1,190	2,970	2,440	2,410	2,080	2,550	3,700	8,280	9,380	452	1,090	856
24	1,430	2,880	2,350	2,400	2,070	2,540	3,830	9,080	8,790	779	1,210	969
25	1,540	2,830	2,230	2,430	2,030	2,490	4,260	8,030	7,970	1,100	1,080	688
26	1,660	2,730	2,180	2,460	2,140	2,550	4,990	6,940	7,070	936	960	1,580
27	1,680	2,800	2,380	2,400	2,120	2,590	5,520	6,940	5,680	653	824	1,780
28	1,700	2,870	2,520	2,400	2,140	2,630	5,880	7,670	3,920	468	808	1,760
29	1,960	2,870	2,520	2,230	-------	2,760	6,660	7,250	3,160	295	969	1,570
30	2,040	2,780	2,300	2,290	-------	2,950	7,780	5,610	3,890	212	607	1,180
31	2,080	-------	2,260	2,280	-------	3,210	-------	4,500	-------	277	474	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,080	253	902	55,500
November	3,070	2,030	2,630	156,000
December	2,800	660	1,970	121,000
January	2,630	2,230	2,460	151,000
February	2,290	928	1,790	99,400
March	3,210	2,140	2,530	156,000
April	7,780	2,520	3,720	221,000
May	9,080	3,300	6,170	379,000
June	14,800	3,160	9,290	553,000
July	6,220	169	1,340	82,400
August	1,210	299	759	46,700
September	1,780	169	756	45,000
The year	14,800	169	2,850	2,070,000

AMERICAN FALLS RESERVOIR AT AMERICAN FALLS, IDAHO

LOCATION.—Water-stage recorder in sec. 30, T. 7 S., R. 31 E., at outlet gates of reservoir at American Falls.

RECORDS AVAILABLE.—March 1926 to September 1933.

REMARKS.—American Falls Reservoir impounds water for supplemental irrigation of lands under various canals diverting from Snake River at Milner and Minidoka Dams. It has a capacity of 1,700,000 acre-feet between elevations 4,295.70 and 4,354.50 feet, sea-level datum. Gage-height record and table showing storage capacity of reservoir furnished by U.S. Bureau of Reclamation.

Contents, in acre-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232,230	322,170	560,440	678,660	871,160	996,840	1,221,220	1,323,720	1,328,670	1,371,550	927,250	467,060
2	232,650	325,020	568,620	685,410	877,040	1,002,410	1,230,330	1,327,190	1,322,240	1,371,550	909,450	456,280
3	236,850	331,670	576,190	690,530	882,530	1,007,140	1,238,960	1,330,650	1,319,270	1,371,550	893,520	443,630
4	233,280	338,070	583,760	696,680	888,420	1,013,570	1,247,600	1,333,620	1,320,260	1,367,520	877,440	430,450
5	231,800	343,120	588,100	702,150	893,910	1,019,580	1,251,910	1,336,100	1,325,210	1,359,450	861,000	417,580
6	230,540	348,490	594,970	706,930	899,790	1,025,160	1,258,170	1,331,150	1,327,190	1,347,980	848,040	404,210
7	230,120	358,500	605,290	713,760	905,000	1,030,410	1,263,040	1,333,130	1,329,170	1,335,600	833,560	389,360
8	229,280	365,100	614,350	720,020	909,450	1,037,010	1,265,960	1,332,140	1,331,150	1,320,750	819,210	376,850
9	228,670	369,340	610,290	725,640	911,070	1,043,620	1,270,830	1,335,110	1,332,630	1,305,410	804,760	362,170
10	228,260	377,600	608,100	732,310	912,680	1,050,220	1,273,270	1,334,120	1,332,630	1,287,390	791,050	347,510
11	228,260	384,110	607,480	739,330	915,110	1,055,940	1,276,680	1,331,150	1,333,130	1,274,730	776,150	334,750
12	228,470	390,620	609,040	746,710	918,340	1,062,550	1,283,490	1,330,160	1,332,630	1,259,630	761,370	321,700
13	229,910	397,540	608,730	753,070	921,180	1,069,150	1,289,340	1,327,190	1,334,120	1,244,240	745,650	309,840
14	230,330	404,720	604,350	759,920	923,600	1,074,980	1,293,230	1,323,720	1,337,580	1,226,970	729,150	297,890
15	233,280	413,440	604,660	766,780	927,250	1,079,940	1,297,620	1,318,770	1,343,030	1,211,630	714,440	287,090
16	233,490	420,990	604,350	774,350	929,670	1,088,060	1,299,570	1,316,790	1,350,450	1,194,620	700,100	283,970
17	235,800	429,670	603,410	781,200	934,520	1,095,270	1,300,540	1,315,310	1,357,940	1,176,260	685,410	275,960
18	239,800	440,440	606,230	789,190	938,970	1,102,930	1,302,490	1,311,840	1,366,510	1,160,280	667,710	268,920
19	238,960	451,710	610,920	795,490	942,630	1,111,050	1,308,380	1,312,830	1,378,110	1,139,070	652,770	267,410
20	241,270	460,320	613,730	801,050	949,310	1,120,170	1,310,360	1,316,300	1,387,690	1,123,860	634,270	262,220
21	245,060	473,080	619,450	806,980	954,740	1,127,550	1,311,840	1,318,280	1,396,260	1,107,890	620,100	256,590
22	247,800	483,870	624,610	812,910	961,410	1,137,690	1,314,810	1,318,770	1,401,810	1,088,960	605,910	252,480
23	252,480	496,320	627,510	819,580	966,420	1,145,990	1,317,290	1,324,710	1,404,330	1,075,430	591,220	248,640
24	261,140	507,690	631,370	825,940	971,430	1,153,820	1,320,260	1,332,630	1,405,340	1,059,460	575,580	244,430
25	266,980	516,810	637,820	831,650	976,020	1,161,660	1,321,740	1,338,570	1,404,330	1,043,620	563,170	240,220
26	274,620	524,500	643,940	837,750	981,030	1,169,190	1,321,350	1,338,080	1,399,790	1,028,210	550,000	236,850
27	282,190	532,690	649,780	844,610	985,680	1,178,140	1,320,260	1,336,100	1,395,760	1,011,860	537,090	238,120
28	290,650	540,310	655,420	848,040	991,260	1,186,150	1,318,770	1,339,560	1,389,710	994,260	523,360	238,540
29	298,350	547,060	662,390	854,900	-------	1,193,670	1,316,790	1,342,040	1,382,650	976,850	509,120	239,170
30	305,700	554,100	667,710	859,090	-------	1,203,570	1,315,310	1,339,070	1,371,550	960,580	493,550	244,430
31	315,120	-------	673,350	865,280	-------	1,211,150	---------	1,336,100	---------	943,890	480,830	-------

SNAKE RIVER AT NEELEY, IDAHO

LOCATION.—Water-stage recorder in sec. 31, T. 7 S., R. 31 E., 1 mile below American Falls Dam. Gage datum lowered 2 feet Oct. 1, 1932. Discharge measurements are made in sec. 11, T. 8 S., R. 30 E., half a mile north of Neeley and 3 miles downstream from recorder. Published discharge shows the flow at the latter point.

RECORDS AVAILABLE.—March 1906 to September 1933.

DISCHARGE.—Maximum during year, 11,700 second-feet July 26 (gage height, 5.92 feet); minimum, 124 second-feet several days during November and December.

1906–33: Maximum, 48,400 second-feet June 20, 1918 (gage height, 13.5 feet on former gage at site 3 miles below present gage); minimum, that of 1933.

REMARKS.—Records excellent. Flow regulated by operation of gates at American Falls Dam. About 700,000 acres of land irrigated from Snake River and its tributaries above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,450	2,250	1,630	2,020	2,160	2,030	1,310	9,180	11,300	7,680	11,600	10,200
2	2,240	2,300	1,610	2,130	2,160	2,050	1,320	9,100	10,900	7,950	11,500	10,100
3	3,470	2,230	1,810	2,040	2,160	2,070	1,860	9,100	10,400	8,620	11,400	10,100
4	3,630	2,190	1,910	2,020	2,140	2,040	2,560	8,940	10,400	11,100	11,600	10,000
5	3,490	2,170	1,860	3,150	2,160	2,050	2,290	8,820	10,400	11,000	11,600	9,890
6	3,170	227	1,910	2,070	2,140	2,060	2,060	9,140	10,500	10,600	11,600	9,970
7	3,400	2,220	1,850	2,070	2,250	1,960	3,320	9,180	10,600	11,000	11,200	10,200
8	3,330	2,160	4,120	2,040	2,480	1,830	4,550	9,220	10,600	11,200	10,900	10,100
9	3,340	2,160	4,000	2,100	2,880	1,860	4,610	8,660	10,600	11,200	10,800	9,970
10	3,290	2,170	4,320	1,850	2,750	1,830	4,050	8,380	10,600	11,200	10,900	10,100
11	3,390	2,170	2,770	1,720	2,520	1,790	3,240	8,420	10,600	11,100	11,300	10,200
12	2,780	2,200	4,020	1,810	2,430	1,790	2,970	8,420	10,300	11,100	11,300	9,930
13	2,710	127	4,890	1,830	2,170	1,790	3,290	8,380	10,100	11,100	11,600	9,100
14	2,710	2,250	4,310	1,780	2,150	4,100	3,610	8,380	10,400	11,100	11,300	8,500
15	2,680	2,090	3,530	1,790	2,310	1,790	3,900	8,140	10,800	11,200	11,100	7,790
16	2,560	1,180	4,850	1,790	2,430	1,860	4,080	7,560	11,200	11,300	11,000	7,410
17	2,700	1,350	4,130	2,010	2,220	1,330	4,450	7,560	11,200	11,400	11,200	6,130
18	2,470	126	1,970	2,140	2,130	1,510	4,680	7,600	11,300	11,500	11,500	5,910
19	2,670	124	3,610	2,170	2,030	1,460	4,740	7,560	10,900	11,500	11,600	5,870
20	2,640	124	1,970	2,130	2,080	1,350	4,710	7,560	10,600	11,400	11,500	5,840
21	2,590	124	1,960	2,100	2,030	1,320	4,650	8,110	10,400	11,200	11,400	5,840
22	755	124	3,410	2,100	2,020	1,290	4,650	8,260	10,500	11,000	11,300	5,840
23	786	124	3,460	2,140	2,020	1,290	4,880	8,300	10,900	10,900	11,200	5,730
24	713	124	1,990	2,190	2,040	1,300	5,480	8,340	11,300	11,100	11,200	5,800
25	734	1,140	2,060	2,140	2,040	1,310	6,590	8,900	11,400	11,600	11,100	5,560
26	1,070	1,140	2,040	2,160	2,010	1,290	7,680	9,340	11,300	11,700	10,900	5,350
27	748	1,140	2,130	2,210	2,030	1,310	8,740	9,760	10,900	11,500	10,800	4,610
28	748	1,840	2,040	2,140	2,030	1,310	9,140	9,840	10,400	11,400	10,500	3,130
29	734	1,890	2,040	2,190	-------	1,310	9,220	10,100	10,100	11,600	10,500	2,800
30	741	1,850	2,040	2,140	-------	1,300	9,180	10,300	9,680	11,600	10,400	1,970
31	762	-------	2,060	2,200	-------	1,350	-------	10,800	-------	11,600	10,300	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,630	713	2,270	140,000
November	2,300	124	1,380	82,100
December	4,890	1,610	2,780	171,000
January	3,150	1,720	2,080	128,000
February	2,880	2,010	2,210	123,000
March	4,100	1,290	1,710	105,000
April	9,220	1,310	4,590	273,000
May	10,800	7,560	8,750	538,000
June	11,400	9,680	10,700	637,000
July	11,700	7,680	11,000	676,000
August	11,600	10,300	11,200	689,000
September	10,200	1,970	7,460	444,000
The year	11,700	124	5,520	4,010,000

LAKE WALCOTT NEAR MINIDOKA, IDAHO

LOCATION.—Hook gage in sec. 1, T. 9 S., R. 25 E., in backwater formed by Minidoka Dam, 6 miles southeast of Minidoka. Zero of gage is 4,150.48 feet above mean sea level.

RECORDS AVAILABLE.—April 1909 to September 1933.

REMARKS.—Lake Walcott floods 12,250 acres at gage height 46 feet and impounds 107,240 acre-feet between gage heights 36 and 46 feet, for irrigation of lands on Minidoka project of U.S. Bureau of Reclamation. Considerable water is stored below gage height 36 feet, but it is not available for irrigation withdrawal through canals that divert from the lake. Gage-height record and capacity table furnished by U.S. Bureau of Reclamation.

Contents, in acre-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78,130	67,430	37,060	66,990	67,210	66,990	64,580	80,830	93,900	94,140	95,070	94,490
2	77,230	66,660	36,950	66,990	66,770	66,990	64,800	81,510	95,430	93,550	95,430	94,720
3	76,660	68,860	36,850	66,990	66,990	66,990	64,140	82,980	95,550	93,790	95,310	94,950
4	75,870	70,510	37,470	66,990	66,770	66,990	66,220	85,980	94,950	94,250	95,180	94,720
5	74,860	71,390	36,640	67,100	66,880	66,990	66,990	86,100	94,840	95,790	94,490	93,790
6	73,840	70,510	37,260	68,200	66,210	66,990	66,110	84,940	94,370	95,180	95,670	93,320
7	72,490	67,650	37,060	67,430	66,990	66,990	63,810	87,150	94,250	94,950	96,150	91,920
8	72,160	67,540	40,170	66,990	67,210	66,770	65,010	87,270	94,950	94,840	95,790	92,510
9	73,390	65,890	42,810	66,990	67,430	66,660	68,640	90,530	95,310	95,310	94,600	92,040
10	74,740	66,000	49,470	66,770	68,750	66,550	69,960	90,760	95,430	94,490	94,020	92,270
11	75,420	65,230	54,400	66,440	67,870	66,550	70,950	91,110	95,670	95,180	93,550	93,320
12	75,980	64,580	56,980	66,000	67,760	66,660	69,630	90,760	96,030	95,430	93,440	94,600
13	76,320	63,040	61,720	66,110	67,650	66,770	69,630	91,570	95,430	95,670	94,020	95,430
14	76,320	59,450	67,870	66,000	67,210	68,530	69,190	92,970	95,180	94,950	94,490	95,670
15	76,440	60,850	70,730	66,110	66,990	68,530	68,750	94,250	95,070	94,840	94,020	93,090
16	75,870	61,500	70,510	66,330	67,870	67,650	68,970	93,790	95,070	95,430	94,020	93,320
17	75,420	60,960	70,290	66,110	67,430	67,210	68,530	93,790	95,070	94,720	93,670	91,810
18	74,970	59,560	68,640	66,660	67,210	66,550	69,630	93,440	96,150	95,180	93,200	87,960
19	77,230	56,330	66,990	66,550	66,770	66,330	71,390	93,090	96,630	94,720	93,090	87,270
20	78,800	53,110	67,650	66,880	66,660	66,330	72,600	92,740	96,270	95,310	93,320	86,100
21	80,380	50,520	65,890	66,880	66,660	65,890	73,840	91,690	95,430	95,670	93,790	85,980
22	81,400	47,140	65,450	66,990	66,220	65,560	75,080	90,060	94,370	94,490	94,490	84,940
23	79,590	44,610	68,090	66,880	66,550	65,450	75,420	91,920	94,020	94,020	94,950	84,700
24	77,900	41,650	69,190	66,990	66,770	65,010	75,200	92,510	94,490	93,550	94,720	84,700
25	76,550	39,030	67,430	66,770	66,770	65,010	75,650	92,270	94,950	93,790	94,720	84,940
26	75,200	38,300	66,990	66,990	66,770	64,690	75,870	90,530	95,180	94,250	94,720	86,100
27	74,970	37,160	66,770	66,770	66,880	64,900	77,680	89,600	96,150	94,720	95,180	87,030
28	73,840	36,430	66,550	66,990	66,770	65,010	79,140	90,290	94,950	94,020	95,310	86,570
29	72,050	36,850	66,550	66,880	-------	64,800	79,030	90,290	94,370	93,550	94,950	84,820
30	70,070	37,060	66,660	66,990	-------	65,010	78,020	90,990	93,090	94,140	94,020	83,540
31	69,080	-------	66,550	67,100	-------	64,360	-------	91,690	-------	94,720	94,720	-------

SNAKE RIVER NEAR MINIDOKA, IDAHO

LOCATION.—Water-stage recorder in sec. 2, T. 9 S., R. 25 E., 1 mile below Minidoka Dam and 6 miles southeast of Minidoka.

RECORDS AVAILABLE.—April 1910 to September 1933. Records prior to 1910 at Montgomery's Ferry, 6 miles downstream.

DISCHARGE.—Maximum during year, 8,670 second-feet July 28 (gage height, 8.30 feet); minimum, 351 second-feet Oct. 26 (gage height, 2.66 feet).

1910–33: Maximum, 45,900 second-feet June 21, 1918 (gage height, 16.02 feet); minimum, that of Oct. 26, 1932.

REMARKS.—Records excellent except those for Dec. 9 to Feb. 20, which are good. Flow regulated by storage at American Falls and Lake Walcott Reservoirs and by diversions 1 mile upstream for irrigation in Minidoka project. Discharge Oct. 21–25, Dec. 9–18, Jan. 18–19, and Feb. 1–20 estimated from Minidoka power-plant records.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,800	1,520	1,640	1,960	2,230	2,050	1,410	6,110	7,430	4,380	8,400	7,430
2	1,820	1,480	1,700	2,090	2,160	2,080	1,320	5,950	7,660	4,540	8,250	7,430
3	2,750	1,350	1,660	2,180	2,180	2,140	1,470	5,920	7,660	4,560	8,100	7,430
4	2,750	1,290	1,610	2,180	2,130	2,140	1,710	5,920	7,510	7,370	8,250	7,480
5	2,820	1,300	1,710	2,310	2,080	2,080	1,980	6,520	7,630	7,690	8,430	7,600
6	2,820	1,980	1,760	2,730	2,180	2,140	2,300	7,110	7,660	7,980	8,280	7,510
7	2,810	2,020	1,820	2,300	2,360	2,070	2,400	6,740	7,770	8,160	8,280	7,630
8	2,570	2,040	1,640	2,130	2,400	1,980	2,500	6,820	7,720	8,370	8,280	7,460
9	1,800	2,260	2,060	2,080	2,320	1,940	2,400	5,760	7,720	8,400	8,040	7,370
10	2,430	2,320	2,150	2,220	2,950	1,910	2,500	6,240	7,690	8,370	8,040	7,280
11	2,360	2,330	2,100	1,990	2,640	1,870	2,580	6,660	7,630	8,040	8,370	6,990
12	1,830	2,330	2,200	1,850	2,550	1,870	2,760	6,540	7,570	8,040	8,310	6,740
13	1,520	2,280	2,130	1,820	2,380	2,000	2,850	6,160	7,570	8,220	8,160	6,410
14	1,780	1,390	2,300	1,830	2,290	2,320	2,830	6,240	7,570	8,520	8,220	6,300
15	1,870	1,420	3,000	1,870	2,230	2,680	2,850	6,380	7,690	8,490	8,160	6,490
16	1,880	1,480	5,000	1,920	2,270	2,210	2,830	6,240	7,980	8,340	8,040	6,270
17	2,000	1,630	4,500	2,020	2,330	2,090	2,900	6,160	8,040	8,490	8,130	5,710
18	1,820	1,590	4,000	2,100	2,220	1,800	2,870	6,320	8,100	8,460	8,400	5,460
19	1,360	1,580	3,360	2,100	2,110	1,690	2,900	6,350	8,100	8,460	8,220	4,920
20	1,510	1,560	3,760	2,070	1,990	1,680	2,890	6,300	8,130	8,400	8,190	4,660
21	1,450	1,590	2,700	2,080	2,120	1,720	2,800	6,300	7,800	8,610	8,190	4,630
22	1,350	1,630	2,350	2,080	2,070	1,570	2,850	6,770	8,040	8,640	7,950	4,630
23	1,100	1,630	2,730	2,150	2,090	1,530	3,190	6,710	8,160	8,520	7,890	4,520
24	1,150	1,580	3,460	2,140	2,120	1,520	3,620	6,630	8,250	8,400	7,890	4,470
25	1,150	1,600	2,440	2,140	2,080	1,510	4,270	6,770	8,280	8,430	7,890	4,190
26	770	1,610	2,160	2,220	2,140	1,450	4,630	7,050	8,280	8,490	7,740	3,860
27	1,070	1,560	2,080	2,080	2,050	1,440	5,280	7,690	8,160	8,580	7,600	3,520
28	1,070	1,570	2,040	2,160	2,080	1,410	6,080	7,370	8,130	8,670	7,630	3,250
29	1,130	1,590	2,050	2,110	------	1,470	6,300	7,140	8,040	8,610	7,540	2,550
30	1,240	1,600	1,980	2,120	------	1,470	6,570	6,990	7,320	8,520	7,430	2,160
31	1,460	------	1,980	2,160	------	1,530	------	7,280	------	8,460	7,250	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,820	770	1,810	111,000
November	2,330	1,290	1,700	101,000
December	5,000	1,610	2,450	151,000
January	2,730	1,820	2,100	129,000
February	2,950	1,990	2,240	124,000
March	2,680	1,410	1,850	114,000
April	6,570	1,320	3,130	186,000
May	7,690	5,760	6,550	403,000
June	8,280	7,320	7,840	467,000
July	8,670	4,380	7,970	490,000
August	8,430	7,250	8,050	495,000
September	7,630	2,160	5,740	342,000
The year	8,670	770	4,300	3,110,000

SNAKE RIVER AT MILNER, IDAHO

LOCATION.—Water-stage recorder in sec. 29, T. 10 S., R. 21 E., a quarter of a mile below Milner Dam, at Milner.

RECORDS AVAILABLE.—May 1909 to September 1933.

DISCHARGE.—Maximum during year, 3,670 second-feet Dec. 18 (gage height, 8.18 feet); minimum, 9 second-feet Aug. 11–12 (gage height, 1.41 feet).

1909–33: Maximum, 44,400 second-feet June 12, 1909 (gage height, 20.10 feet on old gage); minimum, 8 second-feet Aug. 22–26, 1924.

REMARKS.—Records good except those for ice period, Feb. 8–21, which are fair. Flow regulated by operation of American Falls and Lake Walcott Reservoirs and by diversions for irrigation at Milner Dam, just above station. Station is below all irrigation diversions from upper Snake River. Flow includes some stored water used by Idaho Power Co. downstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	579	66	328	1,060	1,150	1,420	416	54	14	35	10	11
2	622	103	314	948	1,180	1,420	356	41	15	45	11	10
3	244	43	486	1,030	1,300	1,420	113	35	17	40	10	10
4	21	229	760	1,270	1,350	1,420	60	39	15	20	10	10
5	402	326	444	1,130	1,130	1,530	58	36	14	11	10	10
6	593	320	395	1,590	1,060	1,570	133	33	14	10	10	10
7	603	812	506	1,690	1,010	1,590	922	41	15	11	10	10
8	383	931	383	1,500	1,470	1,440	356	99	15	11	10	10
9	270	354	298	1,300	1,830	1,090	922	160	15	12	10	10
10	226	621	603	1,040	1,510	1,070	818	25	15	10	10	11
11	264	968	942	1,100	1,730	1,160	766	22	16	10	9	10
12	398	963	802	1,060	1,900	1,100	662	22	18	10	9	10
13	383	1,180	672	875	1,500	805	1,680	21	19	12	10	10
14	249	875	672	885	1,520	1,470	1,290	19	18	10	10	10
15	254	812	1,350	885	1,320	1,900	1,460	17	15	10	10	10
16	272	472	2,300	745	1,320	1,890	307	15	15	41	10	10
17	283	451	3,290	637	1,380	1,020	67	13	16	11	10	12
18	303	486	3,670	788	1,250	1,230	96	13	16	10	10	12
19	283	667	2,620	1,370	1,250	1,250	1,110	13	15	10	10	11
20	272	486	1,820	1,280	1,120	859	1,080	14	15	10	10	10
21	149	441	2,220	1,120	1,210	327	131	14	13	10	10	10
22	22	432	1,800	1,130	986	922	539	13	11	10	10	10
23	160	444	1,520	1,130	1,010	1,010	184	14	11	10	10	10
24	368	510	2,420	1,130	1,180	506	117	14	10	10	10	10
25	1,010	556	2,760	1,240	1,190	561	116	14	10	11	10	11
26	1,630	539	1,620	1,130	1,250	579	114	13	10	10	10	11
27	1,570	432	1,370	1,130	1,280	483	109	13	11	11	10	10
28	1,130	428	1,340	1,130	1,440	320	89	21	13	11	10	10
29	506	428	1,390	1,160	-------	167	57	19	10	10	10	10
30	111	389	1,060	1,130	-------	588	46	16	10	10	10	10
31	30	-------	1,130	1,180	-------	280	-------	13	-------	10	10	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,630	22	438	26,900
November	1,180	43	525	31,200
December	3,670	298	1,330	81,800
January	1,690	637	1,120	68,900
February	1,900	986	1,320	73,300
March	1,900	167	1,050	64,600
April	1,680	46	472	28,100
May	160	13	28.9	1,780
June	19	10	14.0	833
July	45	10	14.6	898
August	11	9	9.97	613
September	12	10	10.3	613
The year	3,670	9	524	380,000

SNAKE RIVER NEAR KIMBERLY, IDAHO

LOCATION.—Water-stage recorder in SE¼ sec. 32, T. 9 S., R. 18 E., half a mile below Twin Falls, 2½ miles above Shoshone Falls, and 4 miles north of Kimberly.

RECORDS AVAILABLE.—July 1923 to September 1933.

DISCHARGE.—Maximum during year, 4,320 second-feet about Dec. 19 (gage height from recorder trace when clock was stopped, 7.74 feet); minimum, 378 second-feet June 7- 8 (gage height, 0.95 foot).

1923–33: Maximum, 27,200 second-feet July 4, 1927 (gage height, 14.76 feet); minimum, 355 second-feet Apr. 15, 1931 (gage height, 0.72 foot).

REMARKS.—Records good. Discharge estimated Oct. 1–14, Dec. 9–22, July 3–6. Practically entire flow during irrigation season is diverted at Milner; no diversions between Milner and Kimberly.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,000	515	880	1,660	1,660	1,920	602	515	415	422	430	495
2	1,000	505	845	1,660	1,660	1,860	725	565	408	415	430	495
3	700	590	815	1,560	1,710	1,860	710	590	408	420	430	505
4	600	515	1,170	1,710	1,810	1,860	525	505	408	420	430	505
5	700	628	1,130	1,760	1,710	1,920	438	455	408	420	422	505
6	800	785	915	1,760	1,610	2,020	438	430	400	420	430	505
7	800	815	950	2,210	1,560	1,970	665	430	392	438	438	505
8	700	1,520	1,020	1,920	1,420	2,020	1,130	438	385	438	438	505
9	700	985	900	1,860	2,080	1,710	800	565	392	422	438	505
10	700	815	800	1,660	2,140	1,610	1,290	665	400	408	445	515
11	700	1,210	1,100	1,520	2,210	1,660	1,210	485	400	408	445	525
12	700	1,340	1,400	1,660	2,210	1,710	1,130	445	400	415	445	525
13	700	1,380	1,300	1,560	2,140	1,520	1,610	525	400	415	445	525
14	700	1,560	1,200	1,470	2,080	1,660	1,660	535	400	415	455	525
15	710	1,170	1,200	1,420	1,970	2,020	1,810	515	392	415	438	525
16	725	1,090	1,800	1,420	1,860	2,550	1,470	485	392	422	438	525
17	740	985	2,800	1,210	1,920	1,660	725	438	392	430	445	545
18	755	950	3,800	1,170	2,140	1,520	665	430	408	438	445	545
19	785	1,060	4,200	1,560	2,020	1,920	665	430	400	422	455	555
20	755	1,090	3,100	1,860	1,860	1,380	1,730	422	392	422	465	545
21	755	950	2,300	1,710	1,970	1,250	710	430	400	422	465	535
22	665	950	2,700	1,660	1,660	880	535	430	408	422	465	535
23	535	950	2,140	1,660	1,520	1,520	830	422	408	422	465	535
24	545	950	2,210	1,660	1,660	1,090	578	415	408	430	475	545
25	845	1,020	3,030	1,760	1,610	880	485	438	422	422	475	555
26	1,660	1,060	2,210	1,660	1,810	915	475	455	415	415	485	545
27	1,810	985	2,020	1,660	1,610	950	475	415	415	415	495	578
28	1,710	950	1,920	1,660	1,920	830	465	415	415	415	495	602
29	1,290	915	1,860	1,710	-------	695	465	422	422	415	485	590
30	880	915	1,760	1,760	-------	565	445	422	422	415	485	535
31	615	-------	1,760	1,710	-------	880	-------	422	-------	430	495	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,810	535	848	52,100
November	1,560	505	972	57,800
December	4,200	800	1,780	109,000
January	2,210	1,170	1,650	101,000
February	2,210	1,420	1,840	102,000
March	2,550	565	1,510	92,800
April	1,810	438	849	50,500
May	665	415	469	28,800
June	422	385	404	24,000
July	438	408	421	25,900
August	495	422	455	28,000
September	602	495	531	31,600
The year	4,200	385	974	704,000

SNAKE RIVER NEAR TWIN FALLS, IDAHO

LOCATION.—Staff gage in sec. 33, T. 9 S., R. 17 E., at Perrine Bridge, 4 miles north of city of Twin Falls and 4 miles below Shoshone Falls. Outlet of Blue Lakes enters Snake River 200 feet below gage.

RECORDS AVAILABLE.—September 1911 to June 1917; May 1919 to September 1933.

DISCHARGE.—Maximum during year (estimated), 4,400 second-feet Dec. 19; minimum, 432 second-feet July 31 (gage height, 2.10 feet).

1911–17, 1919–33: Maximum, 32,200 second-feet June 10, 1914 (gage height, 13.3 feet); minimum, 390 second-feet Apr. 1, 1932 (gage height, 1.94 feet).

REMARKS.—Records good. Discharge estimated Dec. 17–29; interpolated July 16, 18–22. No diversions, except by small ranch ditches, between this station and the one at Milner, where the entire flow is diverted during irrigation season.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,280	720	1,080	1,800	1,740	2,140	720	560	590	560	505	652
2	1,180	652	1,130	1,800	1,870	2,140	720	590	560	590	532	652
3	952	685	1,080	1,800	1,870	2,210	685	590	560	590	560	652
4	910	685	1,180	1,870	1,940	2,070	652	590	532	560	532	652
5	910	755	1,130	1,870	1,940	2,140	532	560	532	590	590	685
6	995	910	1,180	1,870	1,870	2,140	560	532	560	590	590	652
7	1,080	910	1,130	2,430	1,800	2,210	590	560	560	620	590	685
8	952	1,560	1,080	1,940	1,800	2,210	652	560	532	620	590	652
9	910	1,390	1,080	1,940	1,940	1,800	830	560	560	590	620	652
10	952	1,040	1,080	1,870	2,000	1,740	1,230	620	590	590	590	652
11	952	1,280	1,180	1,870	2,000	1,680	1,280	652	532	590	620	652
12	952	1,620	1,230	1,870	2,280	1,800	1,340	620	532	590	590	685
13	952	1,560	1,230	1,800	2,580	1,800	1,390	590	560	590	590	685
14	952	1,800	1,230	1,800	2,430	1,440	1,800	560	560	590	590	685
15	952	1,440	1,500	1,800	2,430	1,940	1,940	620	532	590	620	685
16	910	1,440	1,620	1,800	2,430	2,580	1,800	560	560	590	620	685
17	952	1,130	3,000	1,740	2,210	2,140	1,040	652	560	590	590	720
18	952	1,130	4,000	1,740	2,210	2,070	952	480	560	590	560	720
19	952	1,180	4,400	1,680	2,280	1,800	995	532	590	590	590	720
20	910	1,280	3,300	1,680	2,280	1,560	870	560	590	590	620	720
21	910	1,180	2,500	1,870	2,210	1,440	720	560	560	590	620	720
22	952	1,130	2,900	1,870	1,870	1,080	620	560	560	590	620	720
23	830	1,130	2,500	1,800	1,740	1,180	910	560	590	590	590	720
24	720	1,130	2,500	1,800	1,740	1,130	755	532	560	590	620	720
25	792	1,180	3,200	1,800	1,740	995	590	532	560	590	620	720
26	2,000	1,230	2,400	1,800	1,680	755	590	532	590	590	652	720
27	2,140	1,180	2,200	1,740	1,680	720	590	532	590	590	652	720
28	2,140	1,130	2,100	1,740	1,800	792	560	532	560	590	652	685
29	1,620	1,080	2,000	1,740	-------	792	560	560	560	590	652	720
30	1,180	1,080	1,870	1,680	-------	720	560	560	560	532	685	720
31	995	-------	1,870	1,740	-------	685	-------	590	-------	505	652	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,140	720	1,090	67,000
November	1,800	652	1,150	68,400
December	4,400	1,080	1,930	119,000
January	2,430	1,680	1,820	112,000
February	2,580	1,680	2,010	112,000
March	2,580	685	1,610	99,000
April	1,940	532	901	53,600
May	652	480	568	34,900
June	590	532	561	33,400
July	620	505	582	35,800
August	685	505	603	37,100
September	720	652	690	41,100
The year	4,400	480	1,120	813,000

SNAKE RIVER NEAR HAGERMAN, IDAHO

LOCATION.—Water-stage recorder in NW¼ sec. 1, T. 8 S., R. 13 E., just above Upper Salmon Falls, an eighth of a mile above Owsley Bridge, and 4 miles south of Hagerman. Big Wood River enters 11 miles downstream. Zero of gage is 2,873.46 feet above mean sea level.

RECORDS AVAILABLE.—August 1912 to June 1917; July 1919 to September 1933.

DISCHARGE.—Maximum during year, 9,500 second-feet Dec. 19 (gage height, 6.74 feet); minimum, 5,080 second-feet Apr. 27–29, May 30, 31, June 1 (minimum gage height, 5.23 feet May 31).

1912–17, 1919–33: Maximum, 35,100 second-feet June 10, 1914 (gage height, 7.75 feet); minimum, 4,030 second-feet July 15 to Aug. 2, 1915 (gage height, 3.1 feet). Data insufficient in 1916 and 1917 for determination of maximum and minimum discharge.

REMARKS.—Records good. Discharge estimated Dec. 11–16, Feb. 8–10, 13, 14. Practically entire flow at Milner diverted during irrigation season; only minor diversions below Milner.

Daily discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,300	6,450	6,450	7,050	6,750	7,050	5,580	5,320	5,080	5,320	5,450	5,700
2	6,300	6,150	6,450	6,900	6,750	7,050	5,580	5,450	5,200	5,320	5,580	5,850
3	6,750	6,300	6,300	7,050	6,750	7,050	5,580	5,580	5,200	5,320	5,450	5,850
4	6,750	6,300	6,300	6,900	6,750	6,900	5,580	5,450	5,200	5,320	5,450	5,850
5	6,600	6,300	6,600	7,050	6,900	6,750	5,580	5,450	5,200	5,320	5,580	5,850
6	6,450	6,300	6,450	7,050	6,750	6,900	5,450	5,450	5,200	5,320	5,580	6,000
7	6,600	6,450	6,300	7,200	6,600	6,900	5,450	5,450	5,200	5,320	5,580	5,850
8	6,900	6,450	6,150	7,350		7,050	5,580	5,580	5,320	5,320	5,580	5,850
9	6,900	7,050	6,000	7,200	6,600	6,900	6,000	5,580	5,320	5,320	5,580	6,000
10	6,750	6,600	6,000	7,050		6,600	5,850	5,700	5,200	5,320	5,580	6,000
11	6,750	6,450		6,900	6,900	6,600	6,150	5,700	5,200	5,320	5,450	6,000
12	6,750	6,750	6,000	6,750	7,200	6,600	6,150	5,580	5,200	5,320	5,580	6,150
13	6,600	7,050		6,900		6,600	6,000	5,580	5,200	5,320	5,580	6,000
14	6,750	7,050		6,750	7,200	6,450	6,450	5,580	5,200	5,320	5,580	6,000
15	6,600	7,200	7,000	6,750	7,050	6,600	6,450	5,700	5,200	5,320	5,580	6,000
16	6,600	6,900		6,750	7,050	7,200	6,450	5,700	5,200	5,320	5,580	6,150
17	6,450	6,750	8,450	6,600	6,900	7,350	6,150	5,700	5,200	5,320	5,580	5,150
18	6,600	6,600	9,150	6,450	7,050	6,600	5,580	5,580	5,200	5,320	5,580	6,150
19	6,600	6,600	9,500	6,450	7,200	6,450	5,450	5,450	5,200	5,320	5,580	6,150
20	6,600	6,600	8,450	6,900	7,050	6,750	5,320	5,450	5,200	5,450	5,580	6,150
21	6,600	6,750	7,800	7,050	7,050	6,300	6,000	5,450	5,200	5,320	5,580	6,150
22	6,600	6,600	8,100	6,900	7,050	6,150	5,580	5,450	5,200	5,450	5,580	6,150
23	6,600	6,450	7,650	6,900	6,750	5,850	5,450	5,450	5,320	5,450	5,580	6,150
24	6,450	6,450	7,500	6,900	6,600	6,300	5,580	5,320	5,320	5,320	5,700	6,150
25	6,150	6,450	7,650	6,900	6,600	6,000	5,320	5,200	5,320	5,450	5,700	6,300
26	6,150	6,600	7,800	6,900	6,600	5,700	5,200	5,200	5,320	5,450	5,700	6,450
27	6,900	6,600	7,500	6,900	6,750	5,700	5,080	5,200	5,320	5,450	5,700	6,450
28	7,200	6,600	7,350	6,750	6,750	5,700	5,080	5,200	5,320	5,450	5,700	6,450
29	7,200	6,450	7,200	6,900	------	5,580	5,080	5,200	5,320	5,450	5,700	6,450
30	6,750	6,450	7,050	6,900	------	5,580	5,200	5,080	5,320	5,450	5,700	6,450
31	6,600	------	7,050	6,900	------	5,450	------	5,080	------	5,450	5,700	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,200	6,150	6,640	408,000
November	7,200	6,150	6,590	392,000
December	9,500		7,100	437,000
January	7,350	6,450	6,900	424,000
February			6,860	381,000
March	7,350	5,450	6,470	398,000
April	6,450	5,080	5,660	337,000
May	5,700	5,080	5,450	335,000
June	5,320	5,080	5,240	312,000
July	5,450	5,320	5,360	330,000
August	5,700	5,450	5,590	344,000
September	6,450	5,700	6,100	363,000
The year	9,500	5,080	6,160	4,460,000

SNAKE RIVER AT KING HILL, IDAHO

LOCATION.—Water-stage recorder in sec. 7, T. 5 S., R. 11 E., 300 feet east of railroad station at King Hill and 20 miles below Big Wood River.

RECORDS AVAILABLE.—May 1909 to September 1933.

DISCHARGE.—Maximum during year, 11,800 second-feet Dec. 19 (gage height, 7.88 feet); minimum, 5,240 second-feet May 28 (gage height, 5.54 feet).

1909–33: Maximum, 47,200 second-feet June 22, 1918 (gage height, 16.3 feet); minimum, 4,760 second-feet July 7–9, Aug. 15, 16, 1910 (gage height, 4.5 feet).

REMARKS.—Records excellent except those for November, December, January, and June, which are good. Practically entire flow at Milner diverted during irrigation season, and flow at King Hill is derived largely from springs and seepage water entering below Milner.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,230	8,480	8,480	8,740	9,000	9,000	8,230	7,250	6,550	7,010	6,780	7,490
2	8,230	8,230	8,480	8,740	8,740	9,260	8,230	7,730	6,780	7,010	6,780	7,490
3	8,480	8,230	8,480	8,740	8,740	9,000	8,480	7,730	6,550	7,250	6,780	7,490
4	8,740	8,230	8,230	8,740	8,740	9,000	8,740	7,730	6,550	7,250	7,010	7,490
5	8,480	8,480	8,740	8,740	9,000	8,740	8,480	7,490	6,550	7,250	6,780	7,490
6	8,230	8,480	8,740	8,740	9,000	8,740	7,730	7,250	6,780	7,250	7,010	7,490
7	8,230	8,480	8,230	9,000	8,740	9,000	7,730	7,250	6,780	6,780	7,010	7,490
8	8,480	8,480	8,230	9,500	8,480	9,000	7,490	7,490	6,780	6,780	6,780	7,490
9	8,740	9,000	7,980	9,400	8,480	9,000	7,980	7,490	6,780	6,780	7,010	7,490
10	8,740	9,000	7,980	9,200	9,260	8,740	7,980	7,490	6,780	6,780	7,010	7,730
11	8,740	8,740	7,730	9,000	9,000	8,740	8,230	7,490	6,780	6,780	6,780	7,730
12	8,740	9,000	7,730	8,740	9,260	8,740	8,230	7,490	6,780	6,550	6,780	7,730
13	8,740	9,530	8,230	9,000	9,530	8,740	8,230	7,490	6,780	6,550	7,010	7,730
14	8,740	9,530	8,230	8,740	9,260	8,480	8,230	7,250	6,780	6,550	7,010	7,980
15	8,480	9,530	8,230	8,740	9,260	8,740	8,740	7,490	6,780	6,550	7,010	7,980
16	8,480	9,260	8,480	8,740	9,260	9,000	9,000	7,490	6,780	6,550	7,010	7,980
17	8,480	9,000	9,530	8,740	9,000	9,800	8,740	7,490	6,780	6,780	7,010	7,730
18	8,480	8,740	10,900	8,480	9,000	9,000	8,230	7,490	6,780	6,550	7,010	7,730
19	8,480	8,740	11,800	8,480	9,260	8,740	7,730	7,250	6,780	6,550	7,010	7,730
20	8,480	8,740	10,900	8,740	9,000	9,260	7,250	7,010	6,780	6,550	7,010	7,980
21	8,740	8,740	10,100	9,260	9,000	8,740	7,730	7,010	7,010	6,780	7,010	7,980
22	8,740	8,740	10,100	9,000	9,260	8,480	7,730	7,010	7,010	6,550	7,250	7,730
23	8,740	8,740	9,800	9,000	9,000	8,230	7,250	7,010	6,780	6,550	7,250	7,980
24	8,480	8,480	9,530	8,740	8,480	8,230	7,490	6,780	7,010	6,550	7,250	7,980
25	8,230	8,740	9,530	9,000	8,480	8,230	7,250	6,550	7,010	6,550	7,250	7,980
26	8,230	8,740	9,800	9,000	8,480	8,230	7,250	6,780	7,010	6,780	7,250	8,230
27	8,740	8,740	9,800	9,000	8,740	8,230	7,250	6,780	7,010	6,780	7,250	8,230
28	9,260	8,740	9,600	9,000	8,480	8,480	7,010	6,320	7,250	6,550	7,250	8,230
29	9,260	8,480	9,400	9,000	-------	8,740	7,010	6,550	7,250	6,550	7,250	8,230
30	9,000	8,480	9,200	9,000	-------	8,480	7,010	6,550	7,250	6,550	7,250	8,230
31	8,740	-------	9,000	9,000	-------	8,230	-------	6,550	-------	6,780	7,490	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,260	8,230	8,600	529,000
November	9,530	8,230	8,750	521,000
December	11,800	7,730	9,070	558,000
January	9,500	8,480	8,900	547,000
February	9,530	8,480	8,930	496,000
March	9,800	8,230	8,740	537,000
April	9,000	7,010	7,890	469,000
May	7,730	6,320	7,180	441,000
June	7,250	6,550	6,840	407,000
July	7,250	6,550	6,740	414,000
August	7,490	6,780	7,040	433,000
September	8,230	7,490	7,810	465,000
The year	11,800	6,320	8,040	5,820,000

SNAKE RIVER NEAR MURPHY, IDAHO

LOCATION.—Water-stage recorder in NW¼ sec. 18, T. 2 S., R. 1 E., three-quarters of a mile below Swan Falls power plant and 9 miles northeast of Murphy.

DRAINAGE AREA.—41,900 square miles.

RECORDS AVAILABLE.—August to October 1912; August 1913 to September 1933.

DISCHARGE.—Maximum during year, 14,000 second-feet Dec. 24 (gage height, 4.47 feet); minimum not recorded.

1912–33: Maximum, 47,300 second-feet June 22, 1918 (gage height, 13.95 feet); minimum, about 5,000 second-feet Aug. 6, 1917 (gage height, about −2.25 feet). Stage probably fell equally low at times of minimum load at power plant upstream during extremely low-water periods.

REMARKS.—Records excellent except those estimated, Mar. 26, June 21–26, 28, 30, July 1, 4, 9, 12–31, Aug. 1–4, 6–9, 13, which are good. Large diurnal fluctuations of short duration are caused by operation of gates and power plant at dam. Several pumping diversions between this station and the one at King Hill.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,150	8,700	8,840	9,140	9,140	8,990	8,420	7,770	8,150	6,900	6,900	7,310
2	8,150	8,700	8,700	9,140	9,140	9,140	8,280	8,020	8,280	7,000	6,900	7,530
3	8,150	8,560	8,700	9,140	9,140	9,440	8,420	8,280	8,150	7,000	7,100	7,420
4	8,280	8,420	8,700	9,140	8,990	9,440	8,700	8,560	8,020	6,600	7,300	7,420
5	8,700	8,420	8,560	9,140	9,140	9,290	9,290	8,420	8,020	7,420	7,310	7,770
6	8,560	8,560	8,700	8,990	8,840	9,140	8,840	8,020	8,020	7,200	6,900	7,650
7	8,420	8,700	8,840	9,290	9,140	9,140	8,280	7,770	7,770	7,200	7,100	7,650
8	8,280	8,700	8,560	9,290	8,990	9,290	8,150	7,890	7,770	7,100	6,900	7,420
9	8,420	8,700	8,280	9,760	8,840	9,290	7,770	8,020	7,770	6,500	7,000	7,530
10	8,840	9,140	8,150	9,440	8,560	9,290	8,280	8,150	7,770	7,100	7,100	7,310
11	8,990	9,290	8,150	9,290	9,140	9,140	8,150	7,890	7,770	6,800	7,100	7,530
12	8,840	8,560	8,020	9,290	9,140	8,840	8,560	8,150	8,020	6,800	7,200	7,420
13	8,840	8,990	8,020	8,990	9,290	8,990	8,150	8,020	7,650	6,800	7,100	7,530
14	8,840	9,440	8,150	8,990	9,760	9,140	8,280	8,280	7,770	6,800	7,100	7,770
15	8,840	9,600	8,420	9,140	9,600	8,990	8,280	7,770	7,770	6,900	7,100	8,150
16	8,560	9,760	8,420	8,990	9,600	8,840	9,140	8,280	7,770	6,500	7,200	8,020
17	8,700	9,440	8,560	8,990	9,440	9,440	8,560	8,420	7,910	6,900	6,900	7,770
18	8,420	9,290	9,290	8,700	9,140	10,400	9,140	8,150	7,200	6,800	7,100	8,020
19	8,700	9,290	11,200	8,700	9,140	9,440	8,560	8,420	7,650	6,500	7,100	7,650
20	8,840	8,990	12,000	8,700	9,600	8,990	7,890	8,020	7,100	7,000	6,800	7,890
21	8,700	8,840	11,200	8,990	9,440	9,290	7,650	7,890	7,200	7,000	7,100	7,890
22	8,560	9,140	10,300	9,440	9,290	9,140	7,650	7,650	7,200	6,700	7,200	7,890
23	8,840	8,990	9,920	9,290	9,440	8,840	7,770	7,890	7,200	6,800	7,200	7,890
24	8,560	8,700	10,100	8,990	9,140	8,020	7,530	8,020	7,200	6,900	7,310	9,140
25	8,990	8,700	9,760	9,140	8,990	8,560	7,770	7,770	7,100	6,700	7,200	8,420
26	8,280	8,840	9,760	8,990	8,840	8,400	7,890	7,650	7,100	7,200	7,000	8,150
27	8,280	8,990	10,100	9,440	8,840	8,150	7,890	7,650	7,000	7,100	7,000	8,280
28	8,840	8,560	9,920	8,990	8,990	8,280	7,890	7,770	6,900	7,000	7,420	8,420
29	9,440	8,840	9,600	9,290	-------	8,840	7,890	7,890	7,200	7,000	7,420	8,700
30	9,440	8,840	9,440	9,140	-------	9,140	7,890	7,890	7,000	7,000	7,420	8,700
31	9,140	-------	9,140	9,290	-------	8,560	-------	8,150	-------	7,200	7,310	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,440	8,150	8,660	532,000
November	9,760	8,420	8,920	531,000
December	12,000	8,020	9,210	566,000
January	9,760	8,700	9,140	562,000
February	9,760	8,560	9,170	509,000
March	10,400	8,020	9,030	555,000
April	9,290	7,530	8,230	490,000
May	8,560	7,650	8,020	493,000
June	8,280	6,900	7,560	450,000
July	7,420	6,500	6,920	425,000
August	7,420	6,800	7,120	438,000
September	9,140	7,310	7,870	468,000
The year	12,000	6,500	8,320	6,020,000

SNAKE RIVER AT WEISER, IDAHO

LOCATION.—Inclined concrete gage in sec. 31, T. 11 N., R. 5 W., one-third of a mile above wagon bridge at Weiser. Zero of gage is 2,087.22 feet above mean sea level.

RECORDS AVAILABLE.—October 1910 to September 1933. Fragmentary gage-height record obtained by U. S. Weather Bureau since 1895.

DISCHARGE.—Maximum during year, 39,500 second-feet June 13 (maximum gage height, 15.00 feet Feb. 17, during ice jam); minimum, 7,300 second-feet July 28 (gage height, 2.04 feet).

1910–33: Maximum, 83,100 second-feet May 23, 1921 (gage height, 13.60 feet); minimum, 5,100 second-feet Aug. 5, 1924 (gage height, 1.35 feet).

Maximum stage known, 15.7 feet on old Weather Bureau gage (discharge, about 100,000 second-feet) Mar. 3, 1910.

The flood of June 1894 was considerably higher than the flood of March 1910.

REMARKS.—Records good except those estimated, Dec. 13–29 and Feb. 13 to Mar. 9, which are fair. Flow regulated by storage reservoirs above station and by operation of Swan Falls power plant. Some irrigation diversions below Murphy. Gage-height record furnished by U.S. Weather Bureau.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,600	12,300	12,300	11,900	11,500	12,000	18,600	26,000	22,700	12,300	7,810	8,690
2	9,780	11,900	12,300	11,900	11,500		17,600	22,700	23,800	11,500	8,510	8,870
3	9,780	11,500	11,500	11,900	11,100		18,600	21,700	26,000	11,500	8,160	8,870
4	9,600	11,500	12,300	11,900	11,100	16,000	21,100	20,600	27,200	11,100	8,160	9,050
5	9,420	11,500	11,900	11,900	11,500		19,100	20,600	31,900	10,700	8,160	8,870
6	9,970	11,500	11,500	12,300	11,500		18,600	20,600	32,500	9,970	8,510	8,870
7	10,400	11,500	11,900	11,900	11,100	13,000	18,600	19,600	30,700	10,400	8,160	9,230
8	10,200	11,500	11,500	12,700	11,500		15,800	19,600	29,500	9,970	8,510	9,230
9	10,200	11,900	13,100	12,300	10,700		14,000	18,600	29,500	9,230	8,690	9,230
10	10,400	12,300	10,200	12,700	11,500	14,400	13,100	17,600	34,400	8,870	8,340	9,230
11	11,500	12,300	10,200	12,300	11,500	13,600	12,300	16,700	38,900	8,510	8,340	9,420
12	11,500	12,700	10,500	12,300	11,500	13,600	13,100	15,800	38,200	8,510	8,340	8,870
13	11,500	12,300		12,300		14,000	13,100	14,800	39,500	8,160	8,160	9,420
14	11,500	11,900		12,300		14,000	13,600	14,800	38,200	8,160	8,340	9,050
15	10,700	12,300	11,400	11,900	12,000	14,000	14,000	15,800	37,600	8,160	8,510	9,230
16	11,500	13,100		11,500		13,600	15,300	16,700	36,900	7,810	8,160	9,600
17	11,500	13,100		10,700		15,300	15,300	15,800	36,900	7,810	8,160	9,970
18	11,500	13,100		11,100		16,200	16,200	18,600	33,700	7,810	8,160	10,200
19	11,100	13,100	14,000	11,100		16,200	15,300	18,600	30,700	7,810	7,980	9,970
20	11,500	13,100		10,700		15,800	15,800	17,600	27,200	7,810	8,340	10,200
21	12,300	12,700		11,100	11,800	14,000	15,800	17,600	22,700	7,470	8,510	9,970
22	12,300	12,300		11,100		14,000	15,800	17,600	20,600	7,810	8,160	9,970
23	11,900	12,300		11,500		14,000	16,200	16,700	19,100	7,810	8,510	9,600
24	11,500	12,300		11,900		13,100	17,600	16,700	18,100	7,810	8,510	9,970
25	11,500	12,300	13,000	11,100		13,100	19,100	16,700	16,700	7,810	8,510	10,400
26	11,900	12,300		11,100		12,700	21,100	17,600	15,300	7,810	8,510	10,400
27	11,500	12,300		11,900	11,600	15,300	22,200	18,600	14,400	7,810	8,510	10,200
28	11,500	12,300		11,500		15,800	23,800	18,600	14,000	7,640	8,690	10,400
29	11,500	12,300		12,300	--------	17,600	24,400	19,600	13,600	8,160	8,870	10,500
30	12,300	12,700	12,300	11,500	--------	18,600	27,200	19,600	12,700	8,160	8,690	10,400
31	12,300	--------	12,300	11,500	--------	16,700	--------	21,700	--------	8,160	8,870	--------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	12,300	9,420	11,100	682,000
November	13,100	11,500	12,300	732,000
December	--------	--------	12,300	756,000
January	12,700	10,700	11,700	719,000
February	--------	--------	11,600	644,000
March	18,600	--------	14,500	892,000
April	27,200	12,300	17,400	1,040,000
May	26,000	14,800	18,500	1,140,000
June	39,500	12,700	27,100	1,610,000
July	12,300	7,470	8,790	540,000
August	8,870	7,810	8,380	515,000
September	10,500	8,690	9,600	571,000
The year	39,500	7,470	13,600	9,840,000

SNAKE RIVER AT OXBOW, OREG.

LOCATION.—Water-stage recorder in NW¼ sec. 16, T. 7 S., R. 48 E., at Oxbow, five-eighths of a mile above intake of diversion tunnel for Oxbow power plant.

RECORDS AVAILABLE.—May 1923 to September 1933.

DISCHARGE.—Maximum during year, 41,700 second-feet June 14 (gage height, 15.11 feet); minimum, 7,230 second-feet Dec. 11 (gage height, 7.18 feet).

1923–33: Maximum, 70,600 second-feet Feb. 6, 1925; maximum gage height, 19.33 feet May 13, 1928; minimum, 4,890 second-feet Aug. 6, 1924 (gage height, 6.30 feet).

REMARKS.—Records excellent. Flow regulated by irrigation and power operations above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,880	12,600	12,200	13,300	11,800	12,200	18,500	29,600	26,200	14,000	8,210	9,010
2	9,880	12,200	12,200	12,600	11,800	13,300	19,400	27,600	27,600	13,300	8,210	9,010
3	9,880	12,200	11,800	12,600	11,500	15,600	20,200	25,700	28,600	13,300	8,210	9,010
4	9,880	11,800	11,800	12,600	11,200	18,500	22,500	24,800	30,600	12,600	8,470	9,010
5	9,880	11,800	11,800	12,200	11,200	16,000	22,900	23,800	32,700	12,200	8,470	9,290
6	9,880	11,800	11,800	12,200	11,200	13,700	21,600	23,400	34,300	11,500	8,470	9,010
7	10,500	11,500	11,500	12,200	10,800	13,300	21,100	22,500	33,800	11,500	8,740	9,290
8	10,800	11,800	11,200	12,600	10,800	13,300	20,200	21,600	32,700	11,200	8,470	9,290
9	10,500	12,200	10,200	12,600	9,580	14,000	17,700	21,600	32,700	11,200	8,470	9,290
10	10,500	12,600	9,880	12,600	8,740	15,200	16,000	20,200	36,000	9,880	8,470	9,290
11	10,500	12,200	8,740	12,600	9,580	14,000	14,800	19,400	39,900	9,290	8,470	9,290
12	11,200	12,600	10,200	12,600	9,580	14,000	14,800	18,500	40,500	9,580	8,470	9,290
13	11,500	12,900	9,290	12,200	9,290	14,800	14,800	17,700	41,100	9,010	8,470	9,580
14	11,200	12,200	8,470	12,200	10,800	15,200	15,600	17,700	41,100	8,740	8,470	9,290
15	11,200	12,600	9,010	11,800	11,200	14,800	15,600	17,700	40,500	8,740	8,210	9,580
16	11,500	13,300	9,010	11,500	11,800	14,800	17,200	18,900	40,500	8,470	8,470	9,880
17	11,800	13,700	10,200	11,200	12,600	16,000	18,100	20,200	38,800	8,470	8,210	10,200
18	11,500	13,700	11,800	11,200	12,900	17,700	18,500	21,600	37,100	8,210	8,470	10,500
19	11,500	13,700	13,300	11,200	14,000	17,200	17,700	21,100	34,300	8,210	8,470	10,200
20	11,500	13,300	14,000	10,800	13,700	17,200	18,100	20,200	30,600	8,210	8,210	10,500
21	11,800	13,300	16,800	11,200	13,700	16,000	18,100	19,800	27,200	7,960	8,470	10,200
22	12,200	12,900	18,500	11,200	14,400	15,200	18,500	19,800	23,400	7,960	8,470	10,200
23	11,800	12,600	18,100	11,500	13,300	14,800	18,900	19,800	21,600	8,210	8,470	10,200
24	12,200	12,600	15,600	11,800	12,600	14,400	19,800	19,400	20,200	8,210	8,740	10,500
25	12,200	12,600	15,200	11,800	12,600	14,000	22,000	19,800	18,900	8,470	8,470	10,500
26	11,800	12,200	16,400	11,800	12,600	13,700	23,800	20,200	17,700	7,960	8,470	10,500
27	12,200	12,200	15,600	11,800	12,200	14,800	25,300	21,600	16,800	7,960	8,740	11,200
28	11,500	12,200	14,800	11,500	11,800	16,800	27,200	22,500	16,400	8,210	8,740	10,800
29	11,500	12,600	14,400	12,200	-------	18,100	28,100	22,500	15,600	8,210	8,740	10,800
30	11,800	12,200	13,700	11,800	-------	19,400	29,600	22,900	15,200	8,210	9,010	10,800
31	12,600	-------	13,300	11,500	-------	18,900	-------	24,800	-------	7,960	8,740	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	12,600	9,880	11,200	689,000
November	13,700	11,500	12,500	744,000
December	18,500	8,470	12,600	775,000
January	13,300	10,800	12,000	738,000
February	14,400	8,740	11,700	650,000
March	19,400	12,200	15,400	947,000
April	29,600	14,800	19,900	1,180,000
May	29,600	17,700	21,500	1,320,000
June	41,100	15,200	29,800	1,770,000
July	14,000	7,960	9,580	589,000
August	9,010	8,210	8,490	522,000
September	11,200	9,010	9,850	586,000
The year	41,100	7,960	14,500	10,500,000

SNAKE RIVER AT RIPARIA, WASH.

LOCATION.—Chain gage in sec. 31, T. 13 N., R. 38 E., at Oregon-Washington Railroad & Navigation Co.'s bridge at Riparia.

DRAINAGE AREA.—102,000 square miles.

RECORDS AVAILABLE.—October 1915 to September 1922; August 1928 to September 1933.

DISCHARGE.—Maximum during year, 245,000 second-feet June 11 (gage height, 17.36 feet); minimum not determined, occurred during period Feb. 9–19, when stage-discharge relation was affected by ice.

1915–22, 1928–33: Maximum, 270,000 second-feet May 20, 1921 (gage height, 19.0 feet); minimum, 10,600 second-feet Aug. 14, 18, 20, 24–28, 30, 31, Sept. 1, 2, 5, 1931. Average, 12 years (1915–22, 1928–33), 48,800 second-feet.

Maximum stage known, 24.7 feet June 5, 1894 (discharge, about 409,000 second-feet).

REMARKS.—Records good except those estimated, Nov. 25 to Dec. 3, Dec. 14–20, Feb. 9–19, which are fair. Small diversions by pumping between this station and the one at Oxbow. Some diurnal fluctuation as result of pondage for power on Clearwater River at Lewiston.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17,200	21,000		22,900	19,800	21,000	49,600	114,000	165,000	76,700	19,800	16,700
2	16,700	21,000	28,000	21,600	19,800	21,600	46,400	106,000	178,000	66,000	19,800	16,700
3	16,700	20,400		22,200	19,800	23,600	49,600	96,000	184,000	64,800	19,200	16,700
4	16,700	21,600	31,000	22,200	19,200	26,400	55,200	92,900	198,000	63,600	19,200	16,700
5	16,700	21,600	28,600	22,200	19,200	28,600	63,600	86,900	209,000	60,000	19,200	16,700
6	16,700	21,000	27,800	21,600	19,200	29,400	62,400	82,400	207,000	55,200	19,200	16,700
7	16,700	21,600	26,400	21,600	18,700	26,400	61,200	80,900	194,000	51,800	19,800	16,700
8	16,700	24,300	24,300	25,000	18,200	26,400	58,800	78,100	182,000	49,600	19,800	16,200
9	16,700	24,300	20,400	25,700		26,400	51,800	72,500	180,000	46,400	19,200	16,200
10	17,700	22,900	18,200	34,400		26,400	47,400	67,300	217,000	43,400	19,200	16,200
11	18,200	23,600	15,400	31,000	14,500	28,600	42,500	66,000	245,000	41,600	18,700	16,200
12	18,200	22,900	15,400	27,800		30,200	38,900	62,400	219,000	40,700	18,700	16,200
13	18,200	23,600	15,400	27,100		31,800	38,000	62,400	217,000	38,000	18,200	16,200
14	18,700	22,900		27,100		38,000	38,000	62,400	227,000	36,200	18,200	16,200
15	18,700	26,400	17,000	25,000		38,900	38,000	75,300	233,000	34,400	17,700	16,200
16	19,200	26,400		24,300	16,500	38,900	44,400	79,500	229,000	32,600	17,700	15,800
17	20,400	26,400		22,900		40,700	48,500	83,900	221,000	31,000	17,700	17,700
18	20,400	33,500		21,000		40,700	49,600	85,400	196,000	29,400	17,700	18,200
19	21,600	37,100	20,500	19,200		40,700	49,600	89,900	171,000	27,800	17,200	18,200
20	20,400	36,200		19,200	21,600	41,600	50,700	89,900	151,000	27,100	17,200	18,200
21	19,800	32,600	24,300	20,400	24,300	46,400	52,900	83,900	136,000	25,700	16,700	18,200
22	19,200	30,200	27,100	20,400	25,700	43,400	60,000	83,900	123,000	25,700	17,200	18,200
23	19,800	29,400	27,800	18,700	24,300	38,900	67,300	89,900	117,000	24,300	17,200	18,700
24	19,800	27,800	28,600	19,800	24,300	36,200	79,500	92,900	107,000	23,600	17,200	18,700
25	19,800		25,000	22,200	24,300	34,400	92,900	96,000	97,600	23,600	17,200	18,700
26	20,400		25,000	21,000	24,300	34,400	107,000	109,000	92,900	22,900	16,700	19,200
27	19,800	27,000	26,400	20,400	21,600	34,400	114,000	123,000	89,900	22,200	16,700	20,400
28	21,000		25,700	19,800	21,000	38,000	128,000	130,000	85,400	21,600	16,700	20,400
29	21,600		25,000	20,400		45,400	128,000	125,000	80,900	21,600	16,700	19,800
30	21,000		23,600	19,800		47,400	123,000	125,000	78,100	20,400	16,700	19,800
31	21,000		22,900	19,800		49,600		141,000		20,400	16,700	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	21,600	16,700	18,900	1,160,000
November	37,100	20,400	26,000	1,550,000
December	31,000	15,400	23,200	1,430,000
January	34,400	18,700	22,800	1,400,000
February	25,700		19,200	1,070,000
March	49,600	21,000	34,700	2,130,000
April	128,000	38,000	64,600	3,840,000
May	141,000	62,400	91,400	5,620,000
June	245,000	78,100	168,000	10,000,000
July	76,700	20,400	37,700	2,320,000
August	19,800	16,700	18,000	1,110,000
September	20,400	15,800	17,600	1,050,000
The year	245,000		45,100	32,700,000

SALT RIVER BASIN

SALT RIVER NEAR SMOOT, WYO.

LOCATION.—Chain gage in sec. 7, T. 30 N., R. 118 W., 1¼ miles south of Smoot.
DRAINAGE AREA.—59 square miles.
RECORDS AVAILABLE.—June 1932 to September 1933.
DISCHARGE.—Maximum during year, 335 second-feet June 8 (gage height, 2.14 feet); minimum probably occurred during February.
1932–33: Maximum, that of June 3, 1933; minimum probably occurred during February 1933.
REMARKS.—Records good. Discharge estimated Nov. 27–30. No record Dec. 1 to Apr. 22. A few diversions above station for irrigation.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	9.2	11	-------	33	266	54	15	12
2	10	11	-------	34	306	52	15	12
3	10	11	-------	36	335	48	14	12
4	12	11	-------	36	320	48	14	12
5	12	11	-------	36	292	46	14	12
6	12	11	-------	36	266	42	14	12
7	12	11	-------	36	228	39	14	12
8	13	11	-------	36	205	39	14	11
9	13	11	-------	34	194	38	14	11
10	13	11	-------	33	216	36	15	11
11	13	11	-------	31	240	34	15	11
12	12	11	-------	33	240	31	14	11
13	12	11	-------	34	240	30	13	11
14	12	11	-------	36	228	30	13	11
15	12	11	-------	41	228	26	13	11
16	12	11	-------	48	205	25	13	11
17	12	11	-------	76	194	25	12	11
18	11	11	-------	94	194	23	12	11
19	11	11	-------	86	172	23	12	11
20	11	11	-------	94	162	22	16	11
21	11	11	-------	110	134	22	15	11
22	11	11	-------	152	118	22	15	11
23	11	11	34	126	98	20	14	11
24	11	11	36	99	87	18	14	11
25	11	10	34	110	84	16	14	12
26	11	10	33	143	81	16	12	12
27	11	10	33	162	77	15	12	11
28	11	10	34	152	70	15	12	11
29	11	10	36	152	68	15	12	7
30	11	10	34	172	57	15	12	7
31	11	-------	-------	240	-------	14	12	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	13	9.2	11.5	707
November	11	10	10.8	643
April 23–30	36	33	34.3	544
May	240	31	82.0	5,040
June	335	57	187	11,100
July	54	14	29.0	1,780
August	16	12	13.5	830
September	12	7	11.0	655

SALT RIVER NEAR THAYNE, WYO.

LOCATION.—Chain gage in sec. 3, T. 33 N., R. 119 W., at highway bridge 3 miles south of Thayne.
DRAINAGE AREA.—570 square miles.
RECORDS AVAILABLE.—June 1932 to September 1933 (discontinued).
DISCHARGE.—Maximum during year, 732 second-feet June 2 (gage height, 2.74 feet); minimum probably occurred during February.
1932–33: Maximum, 1,020 second-feet June 27, 1932 (gage height, 3.30 feet); minimum probably occurred during February 1933.
REMARKS.—Records good. Discharge estimated Mar. 1–8. No record Dec. 6 to Feb. 28. Numerous diversions for irrigation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	376	364	322		240	418	684	470	392	318
2	376	364	322		240	368	724	473	392	326
3	376	364	328	225	249	421	716	473	398	315
4	367	352	322		276	398	720	470	395	312
5	364	364	322		273	392	688	463	386	312
6	370	352	-------		268	392	657	463	392	318
7	376	346	-------	230	278	395	615	459	383	321
8	376	352	-------		278	386	566	463	389	318
9	401	350	-------	235	273	362	515	463	383	315
10	376	350	-------	235	259	350	548	459	371	321
11	379	352	-------	235	261	359	555	443	383	312
12	379	352	-------	235	273	356	585	440	374	312
13	382	352	-------	235	259	350	661	434	356	310
14	376	352	-------	235	256	332	680	443	368	310
15	376	352	-------	230	259	347	704	430	359	310
16	376	352	-------	240	261	341	704	430	359	310
17	376	340	-------	235	301	392	692	421	347	310
18	376	335	-------	235	359	398	657	421	344	304
19	355	330	-------	235	380	430	630	414	344	301
20	364	328	-------	240	350	424	570	403	356	304
21	364	328	-------	240	365	434	519	390	356	299
22	358	328	-------	235	368	480	487	390	353	296
23	358	322	-------	240	456	497	466	392	356	299
24	379	322	-------	230	504	487	476	390	350	299
25	382	334	-------	230	515	487	459	383	347	294
26	382	328	-------	237	459	519	459	383	344	307
27	376	334	-------	240	430	548	463	405	356	301
28	376	328	-------	244	427	555	476	405	350	296
29	376	328	-------	242	424	566	504	405	353	288
30	376	331	-------	240	402	592	487	390	341	288
31	376	-------	-------	240	-------	642	-------	392	329	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	401	355	374	23,000
November	364	322	343	20,400
December 1–5	328	322	323	3,200
March	244	-------	234	14,400
April	515	240	331	19,700
May	642	332	433	26,600
June	724	459	589	35,000
July	476	383	429	26,400
August	398	329	365	22,400
September	326	288	308	18,300

COTTONWOOD CREEK NEAR SMOOT, WYO.

LOCATION.—Staff gage in W½ sec. 4, T. 30 N., R. 118 W., 1½ miles southeast of Smoot.
DRAINAGE AREA.—26 square miles.
RECORDS AVAILABLE.—May to September 1933.
DISCHARGE.—Maximum during period, 424 second-feet June 17–18 (gage height, 2.76 feet); minimum, 22 second-feet Sept. 29–30 (gage height, 1.28 feet).
REMARKS.—Records good. Discharge estimated May 1–8. Flow regulated by storage in Cottonwood Lakes. One small diversion above station.

Discharge, in second-feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	26	136	186	50	29	16	27	397	76	33	23
2	26	176	179	46	27	17	29	421	84	32	23
3	26	202	169	43	27	18	31	424	82	32	23
4	26	209	162	42	27	19	33	387	79	36	23
5	26	215	160	40	27	20	34	346	74	33	23
6	26	232	153	40	27	21	39	305	69	32	23
7	26	218	153	40	27	22	46	286	62	32	23
8	26	212	153	40	27	23	45	267	59	30	23
9	26	212	147	40	27	24	44	246	57	30	23
10	26	240	144	40	26	25	43	237	55	30	23
11	26	273	118	40	26	26	50	243	52	30	23
12	26	319	98	40	24	27	56	232	51	30	23
13	26	356	92	38	24	28	61	215	51	30	23
14	26	373	87	37	23	29	82	209	51	30	22
15	26	394	80	35	23	30	96	194	51	30	22
						31	113		51	29	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	113	26	39.3	2,420
June	424	136	273	16,200
July	186	51	99.5	6,120
August	50	29	35.8	2,200
September	29	22	24.5	1,460
The period				28,400

STRAWBERRY CREEK NEAR BEDFORD, WYO.

LOCATION.—Staff gage in sec. 27, T. 34 N., R. 118 W., 1½ miles east of Bedford.
DRAINAGE AREA.—21 square miles.
RECORDS AVAILABLE.—June 1932 to September 1933.
DISCHARGE.—Maximum during year, 308 second-feet June 15 (gage height, 2.54 feet); minimum probably occurred during February.
1923–33: Maximum, 675 second-feet June 25, 1932 (gage height, 3.00 feet); minimum probably occurred during February 1933.
REMARKS.—Records fair. No record Nov. 18 to Mar. 18. One small diversion above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	51		29	51	133	149	65	57
2	53	51		29	51	200	142	65	57
3	53	51		29	48	152	136	64	56
4	53	51		29	46	190	126	64	56
5	53	51		29	44	215	120	64	56
6	53	51		29	44	215	114	64	55
7	53	51		29	42	179	108	64	55
8	53	51		29	41	162	102	64	55
9	51	51		29	38	176	98	64	54
10	57	51		29	38	208	94	64	54
11	55	50		29	36	215	87	64	54
12	53	48		29	36	270	86	64	53
13	53	48		29	36	276	86	64	52
14	53	48		29	36	296	84	62	52
15	53	46		29	36	308	83	62	52
16	53	43		29	38	280	83	60	51
17	53	40		29	38	280	82	60	51
18	53			29	38	270	81	60	51
19	53		29	29	40	260	81	60	51
20	53		29	29	42	233	78	59	50
21	53		29	29	55	222	77	59	50
22	53		29	29	59	215	76	59	50
23	51		29	29	64	208	73	58	50
24	51		29	30	64	200	73	58	50
25	51		29	38	64	197	72	58	48
26	51		29	40	64	190	71	58	48
27	51		29	40	64	179	71	58	48
28	51		29	46	81	169	70	57	48
29	51		29	51	81	155	68	57	48
30	51		29	51	86	152	66	57	47
31	53		29		111		66	57	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	57	51	52.7	3,240
November 1–17	51	40	49	1,650
March 19–31	29	29	29	748
April	51	29	32.1	1,910
May	111	36	52	3,200
June	308	133	214	12,700
July	149	66	90.4	5,560
August	65	57	61.1	3,760
September	57	47	52	3,090

HENRYS FORK BASIN

HENRYS LAKE NEAR LAKE, IDAHO

LOCATION.—Staff gage in SW¼ sec. 26, T. 15 N., R. 43 E., at dam 4 miles south of Lake post office.

RECORDS AVAILABLE.—July 1923 to September 1933.

REMARKS.—Henrys Lake Reservoir impounds water for supplemental irrigation of lands served by several canals diverting from Henrys Fork. It has a capacity of 80,000 acre-feet between elevations 6,620 and 6,635 feet, sea level datum. Contents below 4,300 acre-feet not available for diversion. Gates in dam closed Oct. 1 to July 7. Gage-height record and capacity table furnished by North Fork Reservoir Co.

Contents, in acre-feet, 1932–33

Day	Oct.	May	June	July	Aug.	Sept.	Day	Oct.	May	June	July	Aug.	Sept.
1				36,976	19,092	8,517	16				32,951	10,717	8,254
2					18,166	8,517	17				32,274	10,345	8,166
3			31,192	37,359	17,227	8,517	18				31,597	9,941	8,078
4					16,416	8,517	19				30,913	9,534	7,990
5					15,812	8,517	20		29,480		30,165	9,124	7,903
6		27,874			15,266	8,517	21				29,278	8,712	7,816
7				37,468	14,713	8,517	22				28,354	8,596	7,729
8				37,267	14,303	8,517	23				27,428	8,517	7,641
9				36,841	13,964	8,517	24				26,500	8,517	7,554
10				36,347	13,460	8,517	25				25,574	8,517	7,466
11				35,770	12,889	8,517	26				24,644	8,517	7,378
12			32,593	35,157	12,310	8,517	27				23,712	8,517	7,290
13			32,976	34,544	11,856	8,517	28				22,789	8,517	7,220
14				34,042	11,471	8,429	29	11,936			21,877	8,517	7,203
15	10,745			33,600	11,093	8,342	30				20,953	8,517	7,240
							31				20,029	8,517	

NOTE.—Readings discontinued during winter and for other periods for which no record is given.

HENRYS FORK NEAR LAKE, IDAHO

LOCATION.—Water-stage recorder in SW¼ sec. 26, T. 15 N., R. 43 E., a quarter of a mile below Henrys Lake Dam and 4 miles south of Lake post office.

RECORDS AVAILABLE.—May 1920 to September 1933. Prior to September 1922 at a point 3 miles downstream and below mouth of Dry Creek, whose waters have been diverted into Henrys Lake since 1923.

DISCHARGE.—Maximum during year, 481 second-feet July 21, 24, 26, 27 (gage height, 3.73 feet); minimum, about 4 second-feet leakage during October.

1920–33: Maximum, 907 second-feet June 13, 1926 (gage height, 5.40 feet); minimum, 1 second-foot on various dates when reservoir gates were closed.

REMARKS.—Records good. Regulation by operation of Henrys Lake gates, which were closed Oct. 1 to July 7.

Discharge, in second-feet, 1933

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1			479	17	16		344	192	65
2			472	16	17		357	190	65
3			479	16	18		355	206	65
4		10	415	15	19		359	208	64
5			310	15	20		391	208	63
6			281	15	21		461	209	62
7		38	279	15	22		479	59	64
8		105	212	15	23		479	20	65
9		237	175	15	24		481	18	65
10		270	258	15	25		479	18	65
11		310	292	15	26		481	18	65
12		328	296	15	27		481	18	64
13	8	326	232	65	28		476	18	25
14		269	197	66	29		470	17	6
15		238	194	66	30		474	17	6
					31		474	17	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
July	481	10	297	18,300
August	479	17	194	11,900
September	66	6	39.7	2,360
The period				32,600

HENRYS FORK NEAR ISLAND PARK, IDAHO

LOCATIONS.—Staff gage in sec. 29, T. 13 N., R. 43 E., at Sneeds Bridge, 1 mile above mouth of Buffalo River and 2 miles west of Ponds Lodge and Island Park post office.

RECORDS AVAILABLE.—January to September 1933.

DISCHARGE.—Maximum during period of record, 1,220 second-feet May 17 (gage height, 1.08 feet); minimum, 367 second-feet several days during March and April (gage height, 0.22 foot).

REMARKS.—Records good. Flow regulated by storage in Henrys Lake. Gage read twice weekly Jan. 7 to Apr. 14, Sept. 3–15, and discharge interpolated on intervening days. Gage read daily during remainder of period.

Discharge, in second-feet, 1933

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				367	797	940	473	862	417
2				377	776	963	457	884	417
3				387	819	986	457	895	417
4			[a]381	396	797	986	457	852	417
5				392	929	940	440	852	417
6				389	841	917	440	746	418
7	[b]368		381	385	797	895	490	684	420
8			381	381	735	852	473	684	422
9			381	377	694	808	542	588	424
10			381	372	675	808	675	570	424
11			381	367	636	808	675	665	424
12			381	367	646	808	715	665	424
13			381	367	725	776	735	665	424
14			381	367	787	756	735	607	490
15			381	367	830	756	694	588	490
16			381	367	963	735	655	570	490
17			381	381	1,220	694	735	570	481
18			381	396	1,030	655	776	552	481
19			381	381	917	616	776	552	465
20			381	367	808	579	756	607	465
21			381	381	787	561	776	588	465
22			381	410	841	524	819	597	465
23			381	440	929	506	873	440	465
24			381	473	862	490	873	424	465
25			381	506	819	473	873	424	515
26			376	597	841	473	873	473	481
27			372	735	884	473	882	440	465
28			367	929	841	473	882	424	465
29			367	1,180	841	473	882	424	457
30			367	1,020	862	473	882	424	417
31			367		906		882	417	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
January			[a]368	22,600
February			[a]375	20,800
March		367	379	23,300
April	1,180	367	474	28,200
May	1,220	636	833	51,200
June	986	473	707	42,100
July	873	440	695	42,700
August	895	417	604	37,100
September	515	417	450	26,800
The period				295,000

[a] Estimated on account of ice.
[b] Result of discharge measurement.

HENRYS FORK AT WARM RIVER, IDAHO

LOCATION.—Water-stage recorder in sec. 12, T. 9 N., R. 43 E., 1,000 feet above mouth of Warm River and half a mile from Warm River railroad station.

RECORDS AVAILABLE.—September 1910 to March 1915; April 1918 to September 1933.

DISCHARGE.—Maximum during year, 1,790 second-feet Apr. 29 (gage height, 5.49 feet); minimum, 425 second-feet Dec. 9 (gage height, 3.50 feet).

1910–15; 1918–33: Maximum, 3,540 second-feet May 18, 1927 (gage height, 7.55 feet); minimum, 421 second-feet Dec. 16, 1931 (gage height, 3.45 feet). Average, 19 years (1910–14, 1918–33), 1,040 second-feet.

REMARKS.—Records good. Discharge estimated Dec. 7–8, Dec. 10 to Jan. 10, and Feb. 8–22 because of ice. Flow regulated by operation of gates at Henrys Lake about 60 miles upstream. Some water diverted above station for irrigation of wild-hay meadows.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	729	729	712	759	718	776	701	1,440	1,420	855	1,210	753
2	724	735	718	741	718	776	701	1,380	1,410	837	1,220	753
3	724	747	718	735	718	776	712	1,410	1,410	831	1,230	753
4	724	729	684	729	718	776	718	1,410	1,400	824	1,200	753
5	724	753	634		718	764	712	1,510	1,370	818	1,200	753
6	724	782	602		710	770	724	1,460	1,310	818	1,140	747
7	741	741	550	720	451	764	741	1,370	1,270	818	1,040	741
8	759	735	500			764	718	1,310	1,230	824	1,030	747
9	753	764	425			741	701	1,220	1,220	855	1,010	759
10	741	729	753			741	689	1,180	1,190	861	938	747
11	741	706	759	718		741	706	1,130	1,170	899	938	741
12	747	718	765	695		729	701	1,140	1,150	983	996	741
13	747	741	759	706		729	695	1,180	1,140	1,030	1,010	741
14	741	729	753	712		729	695	1,250	1,130	1,050	990	753
15	741	706	753	729	700	729	706	1,300	1,110	1,070	931	824
16	741	759	753	718		729	724	1,420	1,080	1,080	918	818
17	759	741	753	706		729	735	1,640	1,040	1,070	905	794
18	759	735	765	706		729	764	1,650	1,020	1,040	905	782
19	747	729	741	718		729	764	1,500	983	1,060	931	782
20	741	729	788	718		729	747	1,430	957	1,120	938	776
21	735	735	735	706		729	747	1,410	931	1,120	912	776
22	735	729	706	706		718	788	1,490	905	1,120	924	770
23	735	701	765	718	695	718	843	1,560	886	1,130	880	782
24	735	718	741	724	718	701	899	1,460	868	1,140	776	806
25	735	753	735	724	729	701	964	1,410	861	1,180	770	868
26	735	718	735	718	747	701	1,100	1,430	855	1,200	831	812
27	735	718	735	718	764	700	1,290	1,430	843	1,220	788	794
28	741	718	750	721	776	700	1,520	1,400	837	1,230	776	794
29	741	718	770	724	------	700	1,790	1,350	855	1,210	764	776
30	729	712	735	718	------	700	1,690	1,360	868	1,200	753	741
31	729	------	724	718	------	700	------	1,400	------	1,200	753	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	759	724	738	45,400
November	782	701	732	43,600
December	788	425	710	43,700
January	759	695	720	44,300
February	776	451	703	39,000
March	776	700	733	45,100
April	1,790	689	866	51,500
May	1,650	1,130	1,390	85,500
June	1,420	837	1,090	64,900
July	1,230	818	1,020	62,700
August	1,230	753	955	58,700
September	868	741	773	46,000
The year	1,790	425	871	630,000

HENRYS FORK NEAR ASHTON, IDAHO

LOCATION.—Water-stage recorder in sec. 28, T. 9 N., R. 42 E., one-fourth mile below power plant and 3 miles west of Ashton.

RECORDS AVAILABLE.—August 1902 to June 1909; April 1920 to September 1933.

DISCHARGE.—Maximum during year, 2,760 second-feet May 18 (gage height, 6.88 feet); minimum, 227 second-feet Dec. 9 (gage height, 5.04 feet).

1902–9, 1920–33: Maximum, 6,220 second-feet May 7, 1925; minimum, that of Dec. 9, 1932.

REMARKS.—Records good. Flow regulated at times by operation of gates at power dam above station. No irrigation diversions above station except for wild-hay meadows on headwaters.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,030	1,040	1,070	782	975	1,100	988	2,140	2,260	1,150	1,510	1,050
2	1,070	1,040	1,030	1,050	1,060	1,140	988	1,960	2,260	1,150	1,550	1,[illegible]
3	1,040	1,040	989	1,280	987	1,090	988	2,020	2,240	1,130	1,510	[illegible]
4	1,040	1,040	842	1,020	1,050	1,090	1,000	2,040	2,180	1,120	1,510	1,070
5	1,040	1,040	1,200	810	818	689	988	2,160	2,100	1,110	1,500	1,080
6	1,040	1,150	978	974	1,240	1,260	1,000	2,200	2,040	1,110	1,430	1,050
7	1,080	1,040	815	1,100	798	1,140	1,030	2,100	1,960	1,110	1,340	1,040
8	1,110	1,040	599	932	574	1,080	1,010	1,870	1,890	1,180	1,340	1,040
9	1,120	1,070	477	1,140	893	1,080	1,010	1,700	1,870	1,180	1,290	1,070
10	1,080	1,110	942	1,040	940	1,080	936	1,650	1,810	1,230	1,200	1,050
11	1,070	963	913	1,040	1,140	861	962	1,630	1,780	1,350	1,220	1,040
12	1,050	935	1,000	934	985	1,110	975	1,630	1,720	1,350	1,290	1,030
13	1,050	1,170	972	971	1,120	1,120	975	1,700	1,690	1,370	1,310	1,040
14	1,070	1,030	984	1,060	988	1,110	1,010	1,890	1,670	1,380	1,310	1,030
15	1,110	1,040	981	769	1,050	1,070	1,040	1,980	1,580	1,370	1,220	1,150
16	1,080	1,040	971	1,220	1,040	1,030	1,110	2,200	1,560	1,370	1,220	1,130
17	1,000	1,060	921	822	1,090	1,090	1,180	2,650	1,690	1,320	1,220	1,120
18	1,150	1,060	961	980	1,090	1,080	1,250	2,760	1,630	1,420	1,220	1,070
19	1,030	1,030	1,060	1,050	830	1,040	1,220	2,450	1,560	1,400	1,280	1,090
20	1,120	1,030	1,020	1,050	1,340	1,030	1,150	2,350	1,500	1,420	1,310	1,070
21	1,040	1,060	1,020	1,100	1,120	1,030	1,120	2,350	1,430	1,400	1,250	1,080
22	1,040	1,080	1,010	853	843	1,030	1,150	2,430	1,420	1,420	1,260	1,070
23	1,040	1,070	989	1,310	1,320	975	1,320	2,610	1,370	1,500	1,230	1,070
24	1,030	948	1,030	1,080	1,070	988	1,400	2,430	1,340	1,530	1,090	1,080
25	1,040	1,050	805	1,070	1,030	975	1,510	2,320	1,190	1,530	1,070	1,220
26	1,040	1,040	1,070	982	776	975	1,560	2,370	1,160	1,530	1,150	1,150
27	1,030	1,030	1,170	1,050	1,290	988	1,850	2,370	1,150	1,530	1,110	1,130
28	1,040	888	1,000	900	1,060	975	1,740	2,160	1,160	1,530	1,090	1,070
29	1,040	1,040	1,000	1,080	-------	1,010	2,740	2,140	1,190	1,500	1,090	1,050
30	1,040	1,150	1,090	1,070	-------	988	2,560	2,140	1,160	1,480	1,070	1,040
31	1,030	-------	1,040	1,070	-------	988	-------	2,240	-------	1,500	1,080	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,150	1,030	1,060	65,200
November	1,170	888	1,040	61,900
December	1,200	477	966	59,400
January	1,310	769	1,020	62,700
February	1,340	574	1,020	56,700
March	1,260	689	1,040	64,000
April	2,740	936	1,260	75,000
May	2,760	1,630	2,150	132,000
June	2,260	1,150	1,650	98,200
July	1,530	1,110	1,340	82,400
August	1,550	1,070	1,270	78,100
September	1,220	1,030	1,080	64,300
The year	2,760	477	1,240	900,000

DIVERSIONS FROM HENRYS FORK BETWEEN ASHTON AND ST. ANTHONY GAGING STATIONS, IDAHO

Between Ashton and St. Anthony stations six canals divert water from Henrys Fork for irrigation. Records for a portion of each irrigation season from 1919 to 1933 are available.

Records of discharge of the various canals are from daily staff-gage readings and combined to show total flow. Records good.

Discharge, in second-feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	682	887	537	786	459	16	981	1,210	977	684	373
2	699	872	463	799	459	17	999	1,280	994	681	345
3	785	1,160	810	796	459	18	933	1,250	997	678	313
4	798	1,210	808	779	472	19	935	1,210	864	676	281
5	804	1,220	815	772	486	20	974	1,180	854	676	283
6	812	1,280	797	772	498	21	1,000	1,180	703	647	320
7	799	1,310	756	692	509	22	1,050	1,190	712	606	339
8	793	1,360	781	695	514	23	1,080	1,200	912	563	350
9	811	1,350	796	680	399	24	1,110	1,180	947	524	362
10	826	1,350	830	664	421	25	1,160	1,180	864	539	375
11	880	1,330	874	692	414	26	1,180	1,160	885	440	305
12	887	1,340	845	705	393	27	1,160	1,090	876	476	300
13	922	1,330	838	689	371	28	1,130	1,070	888	481	300
14	954	1,340	863	675	368	29	1,130	1,020	887	471	296
15	947	1,280	956	680	372	30	1,130	1,010	881	465	296
						31	1,160		887	465	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	1,180	682	952	58,500
June	1,360	872	1,200	71,400
July	997	463	835	51,300
August	799	440	643	39,500
September	514	281	381	22,700
The period				243,000

HENRYS FORK AT ST. ANTHONY, IDAHO

LOCATION.—Water-stage recorder in sec. 1, T. 7 N., R. 40 E., half a mile upstream from bridge on main street of St. Anthony.

RECORDS AVAILABLE.—March 1919 to September 1933.

DISCHARGE.—Maximum during year (estimated), 4,750 second-feet June 15; minimum, 559 second-feet July 7 (gage height, 2.90 feet).

1919–33: Maximum, 9,030 second-feet May 8, 1925 (gage height, 6.70 feet); minimum, 406 second-feet July 22, 1931 (gage height, 2.77 feet).

REMARKS.—Records good. Discharge estimated May 1–2, June 15–20, 22, by comparison with Ashton and Chester stations. No record Oct. 1 to Apr. 30. Diversions for irrigation above snd below station. Flow regulated at times by operations of gates at Utah Power & Light Co.'s dam, 17 miles upstream and at Henrys Lake.

Discharge, in second-feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	2,600	3,860	1,260	709	599	16	3,000	4,310	607	624	1,090
2	2,600	3,820	1,090	745	632	17	3,670	4,420	575	615	1,060
3	2,600	3,550	745	790	615	18	3,860	4,230	727	624	909
4	2,540	3,340	624	781	607	19	3,730	3,850	745	666	899
5	2,570	3,340	607	763	607	20	3,610	3,220	709	674	984
6	2,570	3,370	583	727	583	21	3,700	2,970	754	674	984
7	2,400	3,370	559	700	575	22	3,980	2,470	781	709	963
8	2,160	3,310	709	700	583	23	3,980	2,180	819	745	963
9	1,910	3,260	800	683	754	24	3,700	2,070	859	640	963
10	1,810	3,730	819	615	819	25	3,640	1,940	727	615	1,280
11	1,720	4,010	859	640	859	26	3,760	1,890	709	692	1,190
12	1,680	4,110	754	700	899	27	3,580	1,560	709	692	1,110
13	1,870	4,330	745	700	920	28	3,110	1,350	709	683	1,030
14	2,270	4,560	709	700	909	29	2,970	1,220	692	658	1,020
15	2,620	4,750	674	658	1,010	30	3,030	1,120	700	640	1,020
						31	3,400		683	632	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	3,980	1,680	2,920	180,000
June	4,750	1,120	3,180	189,000
July	1,260	559	743	45,700
August	790	615	684	42,100
September	1,280	575	891	52,400
The period				509,000

DIVERSIONS FROM HENRYS FORK BETWEEN ST. ANTHONY AND REXBURG GAGING STATIONS, IDAHO

Between St. Anthony and Rexburg gaging stations four canals divert water from Henrys Fork for irrigation. Records during a portion of each irrigation season from 1919 to 1933 are available.

Records of discharge of the canals are computed from daily staff gage readings and combined to show total flow. Records good.

Discharge, in second-feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	698	1,140	721	631	436	16	947	1,030	580	598	413
2	705	1,130	725	672	434	17	942	1,020	565	579	412
3	718	1,120	675	704	426	18	922	1,030	643	606	353
4	709	1,120	562	712	439	19	923	927	705	629	351
5	720	1,130	563	697	462	20	923	885	714	636	336
6	803	1,130	593	674	441	21	952	865	755	607	321
7	879	1,130	598	682	425	22	960	852	788	566	322
8	846	1,140	613	686	429	23	967	864	776	530	322
9	836	1,130	736	646	437	24	948	890	802	508	320
10	821	1,140	786	569	439	25	976	900	793	511	319
11	814	1,090	863	585	442	26	1,000	864	742	514	316
12	812	1,090	816	599	440	27	1,020	867	721	496	313
13	833	1,120	763	596	420	28	1,060	682	711	478	313
14	873	1,130	763	619	445	29	1,080	673	698	457	313
15	920	1,070	692	611	430	30	1,120	673	658	441	313
						31	1,130		642	441	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	1,130	698	899	55,300
June	1,140	673	994	59,100
July	863	562	702	43,200
August	712	441	590	36,300
September	462	313	386	23,000
The period				217,000

HENRYS FORK NEAR REXBURG, IDAHO

LOCATION.—Water-stage recorder in sec. 30, T. 6 N., R. 39 E., just below highway bridge 7 miles west of Rexburg and below all tributaries.

RECORDS AVAILABLE.—April 1909 to September 1933.

DISCHARGE.—Maximum during year, 4,980 second-feet June 16 (gage height, 7.65 feet); minimum, 371 second-feet Aug. 18 (gage height, 2.11 feet).

1909–33: Maximum, 9,490 second-feet June 29, 1927 (gage height, 9.90 feet); minimum, 247 second-feet May 4, 1931 (gage height, 1.64 feet).

REMARKS.—Records good except those for ice period, Dec. 4 to Mar. 27, which are poor. Discharge interpolated Apr. 5–7, 10–14. Flow regulated by operation of headgates of irrigation canals above station. No diversions from Henrys Fork below station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	885	1,470	1,550		1,660	3,320	3,210	1,310	391	498
2	775	1,440	1,580		1,640	2,470	3,690	1,310	418	467
3	755	1,400	1,590		1,680	2,240	3,650	1,080	458	458
4	750	1,380			1,740	2,320	3,390	852	485	436
5	715	1,400			1,740	2,190	3,140	745	472	422
6	705	1,460			1,740	2,090	3,010	680	462	418
7	730	1,600			1,750	2,020	2,840	630	436	404
8	858	1,580			1,750	1,870	2,820	600	413	400
9	1,040	1,600			1,700	1,650	2,730	615	458	431
10	1,130	1,640			1,660	1,402	2,880	610	494	552
11	1,160	1,650			1,620	1,340	3,270	580	444	620
12	1,210	1,610			1,580	1,250	3,740	557	418	660
13	1,280	1,730			1,540	1,250	4,050	530	436	725
14	1,290	1,770			1,500	1,350	4,400	516	408	775
15	1,290	1,630		*1,620	1,470	1,610	4,740	490	404	819
16	1,270	1,680			1,540	1,890	4,980	476	383	929
17	1,200	1,690	*1,520		1,760	2,390	4,750	462	375	1,010
18	1,190	1,710			2,030	3,280	4,640	440	371	934
19	1,250	1,710			2,170	3,660	4,560	426	387	802
20	1,200	1,730			2,050	3,590	4,200	418	408	841
21	1,250	1,730			1,810	3,530	3,610	418	422	880
22	1,300	1,760			1,890	3,760	2,980	418	436	880
23	1,360	1,760			2,000	4,150	2,440	413	490	852
24	1,370	1,630			2,300	4,190	2,000	458	521	868
25	1,350	1,550			2,320	3,840	1,750	458	462	958
26	1,390	1,610			2,130	3,700	1,650	408	436	1,210
27	1,450	1,610			2,160	3,760	1,380	400	503	1,190
28	1,480	1,580		1,660	2,390	3,470	1,250	391	498	1,180
29	1,460	1,540		1,730	2,920	2,870	1,340	387	521	1,100
30	1,510	1,540		1,730	3,580	2,520	1,260	383	512	970
31	1,510	-------	-------	1,710	-------	2,550	-------	379	498	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,510	705	1,160	71,300
November	1,770	1,380	1,610	95,800
December	-------	-------	1,530	94,100
January	-------	-------	*1,600	98,400
February	-------	-------	*1,600	88,900
March	-------	-------	1,630	100,000
April	3,580	1,470	1,930	115,000
May	4,190	1,250	2,630	162,000
June	4,980	1,250	3,140	187,000
July	1,310	379	575	35,400
August	521	371	446	27,400
September	1,210	400	756	45,000
The year	4,980	371	1,550	1,120,000

*Estimated.

DIVERSIONS FROM FALL RIVER ABOVE GAGING STATION NEAR SQUIRREL, IDAHO

Above the Squirrel gaging station three canals divert water from Fall River for irrigation. Records for a portion of each irrigation season from 1919 to 1933 are available.

Records of discharge of each canal are computed from daily staff-gage readings and combined to show total flow. Records good.

Discharge, in second-feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	0	27	226	78	0	16	0	166	0	0	0
2	0	22	221	0	0	17	0	188	0	0	0
3	0	20	220	0	0	18	0	195	89	0	0
4	0	20	209	0	0	19	0	196	79	47	0
5	0	29	204	0	0	20	0	210	79	0	0
6	0	29	212	0	0	21	0	215	77	0	0
7	0	38	0	0	0	22	0	215	78	0	21
8	0	60	0	0	0	23	0	226	77	0	23
9	0	90	0	0	0	24	0	224	77	0	23
10	0	104	0	0	0	25	0	220	77	0	27
11	0	107	0	0	0	26	0	218	77	0	24
12	0	119	0	0	0	27	0	228	77	0	23
13	0	128	0	0	0	28	0	196	76	0	23
14	0	150	0	0	0	29	0	224	77	0	23
15	0	166	0	0	0	30	0	215	77	0	23
						31	26		77	0	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	26	0	0.84	52
June	228	20	142	8,450
July	226	0	77.0	4,730
August	78	0	4.03	248
September	27	0	7.00	417
The period				13,900

FALL RIVER NEAR SQUIRREL, IDAHO

LOCATION.—Staff gage in sec. 34, T. 9 N., R. 44 E., 4 miles northeast of Squirrel.
RECORDS AVAILABLE.—January 1904 to June 1909; May 1918 to September 1933. August 1902 to December 1903 at Wilson's sawmill 3 miles upstream.
DISCHARGE.—Maximum during year, 4,960 second-feet June 15 (gage height, 5.36 feet); minimum, 296 second-feet Feb. 9 (gage height, 1.78 feet).
1904–9, 1918–33: Maximum, 6,440 second-feet June 27, 1927; minimum, 72 second-feet Feb. 9, 1930. Average, 15 years (1918–33), 745 second-feet.
REMARKS.—Records good except those for periods of ice effect, Dec. 7 to Mar. 14, which are poor. Diversions for irrigation above and below station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	494	449	456				388	910	2,500	1,370	502	470
2	494	449	470				400	870	2,800	1,130	582	470
3	494	449	486				400	850	2,780	920	582	470
4	478	449	478		400		400	850	2,680	783	566	470
5	478	449	470	450			400	910	2,660	693	550	470
6	478	558	470				400	970	2,780	622	542	470
7	494	510			307	380	388	870	2,960	590	534	470
8	558	510			318		388	756	2,980	801	534	463
9	542	510		449	296		388	684	2,920	820	534	486
10	494	494			318		388	702	3,650	810	526	463
11	494	494					388	702	3,970	738	526	463
12	510	494					388	702	4,050	738	518	456
13	510	494					376	792	4,340	720	510	449
14	510	494					388	950	4,610	720	510	442
15	494	494				376	388	1,100	4,960	702	510	463
16	494	494				364	428	1,310	4,310	702	510	486
17	494	526				364	456	1,620	4,230	702	502	470
18	494	534				364	502	1,620	4,320	518	502	400
19	494	518	455			388	486	1,590	4,500	582	502	442
20	449	534		440	380	400	470	1,700	3,890	566	518	442
21	449	518				414	518	2,000	3,440	566	502	435
22	463	502				414	614	2,310	3,160	566	502	435
23	463	486				400	666	2,030	2,970	550	502	414
24	463	502				394	720	1,920	2,940	550	494	470
25	463	486				388	756	2,090	2,790	534	502	630
26	449	470				388	810	2,280	2,060	526	566	470
27	449	470				388	970	2,090	1,810	518	518	456
28	463	470				414	1,050	1,860	1,810	510	502	442
29	463	486			-------	442	1,460	2,030	1,720	510	502	442
30	456	486			-------	414	1,140	2,200	1,360	510	486	435
31	449	-------			-------	400	-------	2,310	-------	502	470	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	558	449	483	29,700
November	558	449	493	29,300
December	486	----------	458	28,200
January	----------	----------	443	27,200
February	----------	296	374	20,800
March	442	----------	388	23,900
April	1,460	376	564	33,600
May	2,310	684	1,410	86,700
June	4,960	1,360	3,200	190,000
July	1,370	502	680	41,800
August	582	470	520	32,000
September	630	400	461	27,400
The year	4,960	296	788	571,000

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 for a portion of each irrigation season from 1919 to 1933 are available.

Records of discharge of each canal are computed from daily staff-gage readings and combined to show total flow. Records good.

Discharge, in second-feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	123	578	733	515	483	16	222	944	536	502	173
2	129	646	697	584	485	17	229	987	522	503	246
3	134	726	656	576	486	18	236	953	517	505	297
4	133	669	649	576	476	19	203	932	509	499	350
5	131	622	640	561	465	20	266	921	531	494	309
6	132	614	510	545	460	21	286	733	593	511	270
7	132	688	516	545	455	22	306	899	570	529	251
8	133	754	433	556	351	23	326	908	545	526	230
9	132	825	443	543	348	24	359	897	538	521	243
10	133	859	429	534	313	25	394	884	535	544	112
11	135	882	417	528	283	26	430	869	528	566	96
12	171	915	521	475	230	27	466	856	520	543	92
13	172	942	553	499	176	28	508	834	514	520	147
14	193	946	554	504	177	29	553	823	507	502	201
15	215	929	554	503	174	30	594	788	499	491	201
						31	560		488	491	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	594	123	262	16,100
June	987	578	827	49,200
July	733	417	541	33,300
August	584	475	526	32,300
September	486	92	286	17,000
The period				148,000

FALL RIVER NEAR CHESTER, IDAHO

LOCATION.—Water-stage recorder in sec. 13, T. 8 N., R. 41 E., half a mile above mouth and 2 miles north of Chester.

RECORDS AVAILABLE.—April 1920 to September 1933.

DISCHARGE.—Maximum during year, 4,210 second-feet June 15 (gage height, 5.15 feet); minimum, 20 second-feet several days in July and August.

1920–23: Maximum, 6,380 second-feet June 27, 1927 (gage height, 6.60 feet); minimum, 9 second-feet Aug. 7, 1923.

REMARKS.—Records good. Discharge estimated May 1 and July 20–25. No record Oct. 1 to Apr. 30. Station below all diversions for irrigation from Fall River.

Discharge, in second-feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	950	2,330	562	21	40	16	1,560	3,850	145	24	351
2	990	2,510	375	25	47	17	1,950	3,930	131	23	274
3	1,070	2,460	264	35	38	18	2,050	3,800	95	23	145
4	990	2,320	187	33	33	19	2,130	3,490	56	27	128
5	1,030	2,390	204	26	35	20	2,090	2,920	40	25	204
6	1,000	2,480	165	24	42	21	2,290	2,610	30	23	208
7	894	2,610	162	25	38	22	2,500	2,250	25	20	212
8	840	2,610	340	26	65	23	2,360	2,020	25	20	215
9	786	2,570	444	29	139	24	2,130	1,840	25	20	223
10	761	3,080	393	29	198	25	2,220	1,820	25	20	471
11	727	3,340	329	27	227	26	2,370	1,600	24	38	444
12	752	3,610	198	28	283	27	2,200	1,320	24	43	399
13	876	3,830	168	30	283	28	1,880	1,120	21	44	368
14	1,110	4,070	165	29	283	29	1,830	923	20	42	283
15	1,330	4,210	162	26	307	30	1,960	622	20	40	260
						31	2,190		21	37	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	2,500	727	1,540	94,700
June	4,210	622	2,620	156,000
July	562	20	156	9,590
August	44	20	28.5	1,750
September	471	33	208	12,400
The period				274,000

TETON RIVER NEAR ST. ANTHONY, IDAHO

LOCATION.—Water-stage recorder in sec. 15, T. 7 N., R. 41 E., half a mile Oregon Short Line Railroad bridge and 4 miles southeast of St. Anthon
RECORDS AVAILABLE.—April 1920 to September 1933; April 1903 to Jun at station three-fourths mile upstream.
DISCHARGE.—Maximum during year, 2,560 second-feet June 15 (gage heig feet); minimum occurred during winter months when record was discon 1903–9, 1920–33: Maximum, 7,820 second-feet June 5, 1909 (gage 6.90 feet); minimum, 88 second-feet March 12, 1906 (gage height, 1 foo
REMARKS.—Records excellent. Some diversions for irrigation in Teton 20 miles above station.

Discharge, in second-feet, 1933

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Au
1	-------	782	2,060	966	591	626	16	-------	542	2,380	702	5
2	-------	681	2,100	924	666	616	17	826	686	2,360	702	5
3	-------	712	2,290	889	712	537	18	1,120	906	2,340	692	5
4	-------	770	2,100	883	712	518	19	1,060	966	2,170	676	6
5	-------	651	1,960	854	686	513	20	854	912	1,930	661	6
6	-------	616	1,880	820	616	504	21	782	1,060	1,690	636	6
7	-------	666	1,850	804	591	494	22	826	1,310	1,560	626	6
8	-------	611	1,770	808	596	494	23	1,000	1,390	1,440	631	5
9	-------	561	1,640	837	631	499	24	1,040	1,280	1,300	636	5
10	-------	523	1,820	798	621	513	25	1,100	1,260	1,220	621	5
11	-------	499	2,070	770	606	499	26	1,200	1,510	1,130	606	5
12	-------	494	2,200	770	576	542	27	1,300	1,560	1,080	606	5
13	-------	494	2,400	804	561	561	28	1,400	1,400	1,050	601	5
14	-------	499	2,530	733	556	561	29	1,300	1,320	1,070	596	6
15	-------	504	2,560	712	561	523	30	820	1,560	1,000	591	6
							31	-------	1,930	-------	576	6

Month	Maximum	Minimum	Mean	R a
April 17–30	1,400	782	1,040	
May	1,930	494	924	
June	2,560	1,000	1,830	
July	966	576	727	
August	712	547	610	
September	626	452	511	
The period				

DIVERSIONS FROM TETON RIVER BETWEEN ST. ANTHONY GAGING STATION AND MOUTH, IDAHO

Between St. Anthony gaging station and the mouth of the stream 15 separate canals divert water from Teton River for irrigation. Records for a portion of each irrigation season from 1919 to 1933 are available.

Records of discharge of each canal are computed from daily staff-gage readings and combined to show total flow. Records good.

Discharge, in second-feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	269	1,100	938	517	589	16	449	1,470	680	514	436
2	302	1,230	923	563	580	17	472	1,450	694	510	436
3	335	1,360	894	619	530	18	508	1,400	689	509	437
4	357	1,380	878	624	482	19	509	1,400	659	585	438
5	359	1,380	856	642	467	20	525	1,390	616	618	415
6	381	1,340	837	607	454	21	549	1,280	574	649	441
7	388	1,350	822	573	451	22	602	1,240	552	628	435
8	399	1,360	809	571	448	23	617	1,260	540	608	430
9	399	1,390	821	574	454	24	619	1,200	538	560	425
10	393	1,410	832	563	458	25	631	1,240	536	511	465
11	392	1,390	809	556	460	26	667	1,180	531	542	508
12	376	1,420	785	554	463	27	751	1,160	542	568	502
13	398	1,410	765	548	486	28	818	1,150	523	569	497
14	417	1,440	762	533	516	29	854	1,250	523	570	502
15	425	1,460	721	515	474	30	967	1,100	533	590	509
						31	1,050	------	528	608	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	1,050	269	522	32,100
June	1,470	1,100	1,320	78,600
July	938	523	704	43,300
August	649	509	571	35,100
September	589	415	473	28,100
The period	------	------	------	217,000

BLACKFOOT RIVER BASIN

BLACKFOOT RIVER NEAR BLACKFOOT, IDAHO

LOCATION.—Water-stage recorder in sec. 27, T. 3 S., R. 34 E., 2 miles above mouth and 8 miles southwest of Blackfoot.

RECORDS AVAILABLE.—July 1913 to September 1933.

DISCHARGE.—Maximum during year, 624 second-feet May 20–21 (gage height, 8.26 feet); no flow on several days.

1913–33: Maximum, 868 second-feet May 21, 1921; no flow several days.

REMARKS.—Records good except those estimated because of ice, Dec. 7 to Mar. 31, which are poor. Flow regulated by storage at Blackfoot Dam, by diversions of numerous canals, and by waste from several Snake River canals into Sand Creek, which enters Blackfoot River through the Idaho Canal above the station. No diversions from Blackfoot River below station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	226	275	45	94	24	58	346	82	116	0	4
2	12	217	287	46	90	25	59	318	78	100	0	4
3	10	214	293	45	87	26	60	308	54	80	0	4
4	10	215	297	45	99	26	59	319	35	65	0	4
5	10	228	289	45	90	26	59	312	20	42	0	4
6	53	230	248	44	80	26	54	318	2	20	0	4
7	113	231	210	40	39	28	53	359	50	10	6	4
8	159	269	170	36	38	30	51	348	95	10	5	4
9	221	300	130	32	36	31	52	302	91	22	5	4
10	175	287	90	42	35	32	51	287	33	50	5	4
11	180	300		52	35	35	48	273	0	34	5	5
12	120	280		63	40	38	46	271	0	5	5	10
13	67	298		73	65	41	46	269	0	5	5	12
14	71	287		60	67	44	46	249	0	5	5	8
15	44	304		48	68	46	45	219	0	4	5	6
16	40	312		36	70	49	46	262	4	4	5	5
17	41	282		46	72	50	92	376	6	10	5	5
18	60	273		55	70	51	105	492	3	6	5	5
19	110	278		64	68	52	119	580	19	5	5	12
20	198	262		74	67	54	120	624	37	3	5	5
21	251	273	50	63	55	57	141	624	6	1	15	2
22	255	257		52	42	59	154	552	0	0	6	2
23	269	253		40	30	62	180	472	6	0	4	5
24	293	257		96	28	65	212	414	6	0	4	30
25	310	271		96	26	65	312	253	4	0	4	82
26	346	285		95	24	65	369	310	16	0	4	113
27	308	316		95	23	65	378	323	12	1	0	87
28	275	335		96	24	63	310	224	7	3	0	132
29	284	304		98	-------	60	297	149	11	1	0	80
30	264	293		100	-------	58	278	73	78	1	4	54
31	245	-------	44	98	-------	56	-------	54	-------	0	4	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	346	10	155	9,530
November	335	214	271	16,100
December	297	----------	108	6,640
January	100	32	61.9	3,810
February	99	23	55.8	3,100
March	65	24	45.5	2,800
April	378	45	130	7,740
May	624	54	332	20,400
June	95	0	25.2	1,500
July	116	0	19.5	1,200
August	15	0	3.74	230
September	132	2	23.3	1,390
The year	624	0	103	74,400

MUD LAKE BASIN

MUD LAKE NEAR TERRETON, IDAHO

LOCATION.—Water-stage recorder in SW¼ sec. 1, T. 6 N., R. 34 E., 2 miles north of Owsley Canal Co. pump house, 2½ miles northeast of Terreton, and 14 miles southwest of Hamer. Staff gage at First Owsley Canal Co. pumping plant used prior to Oct. 31, 1931, and occasionally thereafter. Zero of each gage is 4,775.33 feet above mean sea level.

RECORDS AVAILABLE.—April 1921 to September 1933.

EXTREMES.—Maximum contents during year, 30,500 acre-feet May 14 (gage height, 6.43 feet); minimum, 3,680 acre-feet Oct. 1 (gage height, 0.15 foot).

1921–33: Maximum contents, 61,660 acre-feet May 5, 1923 (gage height, 9.20 feet); minimum, 1,110 acre-feet Sept. 7–9, 1931 (gage height, —1.5 feet).

REMARKS.—Records good. Water diverted from tributaries and from the lake by pumping and gravity during irrigation season. Gage-height record furnished by court-appointed water commissioner of district 66 and Owsley Canal Co.

Daily contents, in acre-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,680	4,270	6,640	11,200	16,000	19,200	23,000	27,800	27,700	12,700	5,460	[b]4,310
2	3,700	[a]4,290	6,800	11,400	16,100	19,300	23,300	28,200	27,300	12,200	5,390	[b]4,340
3	[a]3,720	4,310	7,020	11,400	16,200	19,400	23,500	28,400	26,700	11,600	5,320	[b]4,370
4	[a]3,740	4,350	7,160	11,600	16,300	19,500	23,800	29,000	26,200	11,000	5,250	[b]4,400
5	[a]3,760	[a]4,380	7,440	11,700	16,300	19,600	24,000	29,000	25,900	10,600	[a]5,240	[b]4,430
6	[a]3,780	[a]4,400	7,530	11,900	16,300	19,600	24,300	29,500	25,400	10,300	[a]5,220	[b]4,460
7	[a]3,800	4,430	[a]7,760	[a]12,000	16,400	19,700	24,400	29,800	24,700	9,910	[a]5,200	[b]4,480
8	[a]3,820	4,520	7,980	[a]12,100	16,400	19,800	24,600	29,900	23,900	9,510	5,190	[b]4,490
9	3,840	4,560	[a]8,120	[a]12,300	16,900	19,900	24,700	30,100	23,400	9,370	5,190	[b]4,500
10	3,840	4,640	8,270	[a]12,400	17,100	20,000	24,900	30,400	23,100	9,030	5,140	[b]4,500
11	3,840	4,640	[a]8,350	12,500	17,300	20,200	25,000	30,400	22,700	8,750	5,080	[b]4,510
12	3,880	4,680	8,430	12,700	17,300	20,300	25,100	30,400	22,200	8,430	5,010	[b]4,510
13	8,880	4,680	8,490	12,800	[a]17,400	20,300	25,200	30,400	21,700	8,270	4,970	[b]4,510
14	3,880	4,880	8,720	12,900	[a]17,600	20,500	25,300	30,500	21,200	8,070	4,900	[b]4,520
15	[a]3,900	4,990	8,820	[a]13,000	[a]17,700	20,600	25,500	30,400	20,800	7,830	4,860	[b]4,580
16	3,910	5,080	8,990	13,200	17,800	20,700	25,700	30,400	20,100	7,650	4,810	[b]4,630
17	[a]3,930	5,210	9,010	13,400	[a]18,000	20,900	25,900	30,400	19,400	7,470	4,770	[b]4,640
18	[a]3,950	5,320	9,160	13,800	[a]18,100	21,200	26,100	30,400	18,800	7,290	[a]4,740	[b]4,640
19	[a]3,970	5,410	9,300	14,200	18,300	21,400	26,400	30,400	18,400	6,830	4,710	[b]4,660
20	3,990	5,510	9,550	14,300	18,500	21,500	26,500	30,400	17,800	6,720	[a]4,680	[b]4,660
21	4,010	5,580	9,730	14,400	18,500	21,600	26,500	30,200	17,200	6,510	4,660	[b]4,670
22	[a]4,040	5,720	9,800	14,500	18,600	21,700	26,600	30,100	16,500	6,410	4,580	[b]4,680
23	4,070	5,780	9,940	14,500	18,700	21,900	26,600	30,000	16,100	6,250	4,520	[b]4,730
24	4,110	5,820	10,100	14,900	18,800	21,900	26,600	29,900	15,700	6,150	4,540	[b]4,780
25	4,130	5,950	10,200	15,000	18,900	22,000	26,700	29,800	15,300	6,050	[a]4,510	[b]4,800
26	[a]4,140	6,050	10,400	15,000	19,000	22,200	26,800	29,600	14,900	5,930	4,480	[b]4,800
27	[a]4,160	6,180	10,700	15,100	19,100	22,500	27,000	29,400	14,400	5,850	4,410	[b]4,820
28	[a]4,180	6,280	10,800	15,500	19,100	22,600	27,200	29,000	13,900	5,650	4,430	[b]4,830
29	4,190	6,360	10,800	15,500	-------	22,800	27,200	28,800	13,600	5,480	[a]4,380	[b]4,830
30	4,230	6,430	11,000	15,600	-------	23,000	27,500	28,400	13,100	5,440	[a]4,340	[b]4,830
31	4,270	-------	11,100	15,800	-------	22,800	-------	28,100	-------	5,410	4,290	-------

[a] Interpolated.
[b] Estimated.

CAMAS CREEK AT CAMAS, IDAHO

LOCATION.—Water-stage recorder in E½SE¼ sec. 21, T. 8 N., R. 36 E., half a mile above mouth of Beaver Creek and 350 feet above Oregon Short Line Railroad bridge at Camas.

RECORDS AVAILABLE.—April 1925 to September 1933.

DISCHARGE.—Maximum during year, 215 second-feet Apr. 30 (gage height, 1.76 feet); no flow Dec. 17 to Apr. 14, July 21 to Sept. 30.

1925–33: Maximum, 335 second-feet May 16, 1932 (gage height, 2.24 feet); no flow June 1–7, 1926, and numerous periods during 1930–33.

REMARKS.—Records good except those estimated, Oct. 5–11, Nov. 13–18, 23–30, Dec. 1–16, Apr. 15, 24, 25, and July 21, which are fair. Diversions for irrigation and stock water above station. Water commissioner for Mud Lake furnished eight discharge measurements and numerous gage-height observations.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Apr.	May	June	July
1	.6	3.5		0	167	20	16
2	2.1	3.0		0	138	35	14
3	2.0	5.0	e 10	0	122	43	11
4	2.0	12		0	117	49	7.5
5		4.2		0	96	50	5.5
6		8.7		0	85	56	4.2
7		14	e 8	0	84	43	3.2
8	e 4.0	14		0	73	38	3.8
9		5.5		0	66	35	4.5
10		19		0	65	24	5.2
11		16	e 5	0	56	22	4.8
12	5.9	16		0	43	16	3.5
13	5.9		e 5	0	32	7.9	2.8
14	6.7			0	21	6.7	2.1
15	7.1		e 2	e 1.0	13	4.0	1.6
16	6.7	e 10		2.4	6.7	3.0	1.1
17	5.9		0	3.5	4.0	5.0	1.2
18	5.0		0	8.7	4.5	3.8	1.6
19	5.2	10	0	10	17	5.5	.9
20	7.5	16	0	15	15	5.5	.5
21	4.5	15	0	13	6.3	5.5	e .3
22	2.8	12	0	12	3.2	6.7	0
23	3.2		0	39	4.0	16	0
24	6.3		0	e 60	41	16	0
25	6.7		0	e 80	50	15	0
26	4.2	e 10	0	103	30	11	0
27	3.0		0	125	26	8.7	0
28	6.7		0	149	32	6.3	0
29	8.7		0	191	31	7.9	0
30	9.5		0	193	22	13	0
31	5.0		0		18		0

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	9.5	0.6	4.88	300
November	19	3.0	10.5	625
December		0	3.4	209
April	193	0	33.5	1,990
May	167	3.2	48.1	2,960
June	56	3.0	19.3	1,150
July	16	0	3.07	189
The year	193	0	10.2	7,420

e Estimated.

NOTE.—No flow during months omitted.

BEAVER CREEK AT DUBOIS, IDAHO

LOCATION.—Water-stage recorder 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 1933.
DISCHARGE.—Maximum during year, 116 second-feet Apr. 26 (gage height, 1.74 feet); no flow on numerous days.
1921–33: Maximum, 858 second-feet Apr. 7, 1930; maximum gage height, 6.5 feet Mar. 16, 1926; no flow for long periods.
REMARKS.—Records good except those estimated, which are fair. Diversions for irrigation above station. During summer practically entire flow is diverted below gage for irrigation. Gage-height observations and two discharge measurements furnished by water commissioner for Mud Lake.

Discharge, in second-feet, 1932–33

Day	Apr.	May	Day	Apr.	May	Day	Apr.	May
1	0	46	11	0	*5.0	21	3.1	*1.2
2	0	29	12	0	*2.0	22	*1.2	*0
3	0	34	13	0	.3	23	*20	13
4	0	19	14	0	*0	24	93	5.7
5	0	14	15	0	*0	25	82	*1.6
6	0	14	16	0	*5	26	84	0
7	0	5.9	17	0	*12	27	70	0
8	0	7.5	18	0	*12	28	61	0
9	0	12	19	2.3	7.0	29	58	0
10	0	*10	20	*.3	3.0	30	60	0
						31		0

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April	93	0	17.8	1,060
May	46	0	8.36	514
The year	93	0	2.18	1,570

* Estimated.

NOTE.—No flow during months omitted.

BEAVER CREEK AT CAMAS, IDAHO

LOCATION.—Staff gage 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 above confluence with Camas Creek.
RECORDS AVAILABLE.—April 1921 to September 1933.
DISCHARGE.—1921–33: Maximum, 163 second-feet Apr. 7, 1930. Flow past station is generally limited to a short period during the spring of each year.
REMARKS.—Flow is affected by irrigation diversions above Dubois (about 14 miles above gage) and by heavy channel losses below Dubois. No flow reached the station during the year ending Sept. 30, 1933.

LITTLE LOST RIVER BASIN

LITTLE LOST RIVER NEAR HOWE, IDAHO

LOCATION.—Staff gage in sec. 3, T. 6 N., R. 28 E., a quarter of a mile above diversion dam of Blaine County Investment Co., 6 miles northwest of Berenice, and 7 miles northwest of Howe.

RECORDS AVAILABLE.—April 1921 to September 1933.

DISCHARGE.—Maximum during year, 114 second-feet June 19 (gage height, 1.02 feet); minimum recorded, 25 second-feet Apr. 10 (gage height, 0.24 foot).

1921–33: Maximum, 176 second-feet June 14, 1923 (gage height, 1.29 feet, present datum); minimum, 13 second-feet Apr. 15, 20, 1923.

REMARKS.—Records good. No records during winter. Discharge interpolated Oct. 20, 21, Apr. 9. Numerous irrigation diversions above and below station. Water is stored in small reservoir of Blaine County Investment Co. on Dry Creek, about 40 miles upstream, and during irrigation season is released and carried through Corral and Wet Creeks to Little Lost River and diverted into the company's main canal a quarter of a mile below station. Gage-height record furnished by water master for Little Lost River.

Discharge, in second-feet, 1932–33

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1	48	-------	57	93	98	34	36
2	47	-------	57	98	95	41	36
3	47	-------	60	98	93	45	36
4	47	-------	64	100	89	39	34
5	49	-------	76	103	85	38	34
6	48	-------	81	103	85	35	31
7	49	-------	82	99	82	38	33
8	51	31	85	99	85	41	34
9	54	28	82	99	86	41	35
10	53	25	80	102	81	40	34
11	53	35	80	98	78	39	35
12	53	31	75	100	77	37	36
13	52	28	60	100	73	36	36
14	51	27	54	106	73	34	34
15	51	29	52	105	70	36	36
16	49	28	54	107	70	36	39
17	51	31	62	109	71	33	38
18	52	34	60	112	44	34	37
19	54	34	60	114	54	35	33
20	55	34	54	112	75	34	38
21	55	38	54	109	73	35	37
22	56	44	58	107	71	39	38
23	51	44	67	106	62	39	40
24	39	46	65	105	51	36	42
25	36	51	66	98	44	34	43
26	56	51	68	98	43	36	43
27	52	51	80	99	40	37	40
28	50	51	88	98	39	37	37
29	50	54	78	106	39	34	38
30	44	57	78	102	37	36	36
31	52	-------	86	-------	34	36	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	56	36	50.2	3,090
April 8-30	57	25	38.3	1,750
May	88	52	68.5	4,210
June	114	93	103	6,130
July	98	34	67.6	4,160
August	45	33	36.9	2,270
September	43	31	36.6	2,180

BLAINE COUNTY INVESTMENT CO.'S CANAL NEAR HOWE, IDAHO

LOCATION.—Staff gage in NW¼NW¼ sec. 11, T. 6 N., R. 28 E., 665 feet below head gates and 7 miles northwest of Howe.

RECORDS AVAILABLE.—April 1924 to September 1933.

DISCHARGE.—Maximum during year, 39 second-feet July 5, 6 (gage height, 2.45 feet); practically no flow during winter except leakage through head gates.

1924–33: Maximum, 87 second-feet May 24, 25, 1928; practically no flow during nonirrigation season.

REMARKS.—Records good. No records during winter. Discharge interpolated Oct. 20, 21, Apr. 9. Cippoletti weir installed below gage May 4. Canal diverts water from Little Lost River in sec. 2, T. 6 N., R. 28 E., for irrigation on lands in project of the Blaine County Investment Co. Gage-height record and seven discharge measurements furnished by water master for Little Lost River.

Discharge, in second-feet, 1932–33

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1	9.0	------	4.7	8.8	37	7.3	2.5
2	8.6	------	4.7	8.8	37	7.3	2.3
3	8.6	------	4.7	8.8	37	8.0	2.0
4	8.6	------	14	8.8	38	8.0	2.0
5	8.6	------	26	8.8	39	6.0	2.0
6	8.6	------	30	8.8	39	4.9	2.0
7	8.6	------	30	8.8	37	4.9	2.0
8	8.6	21	30	8.8	38	4.9	2.0
9	8.6	16	30	8.8	38	6.6	10
10	8.6	10	30	13	38	6.6	10
11	8.6	14	27	13	37	6.3	10
12	8.6	7.9	20	13	38	4.1	10
13	8.6	12	14	16	38	4.1	10
14	8.6	13	6.3	19	32	4.1	10
15	8.6	13	4.1	19	32	4.1	2.3
16	8.6	12	8.0	19	31	3.8	2.8
17	8.6	13	8.0	21	21	3.8	2.8
18	8.6	14	8.0	25	12	4.1	2.8
19	8.6	12	8.0	31	21	4.1	2.8
20	8.6	6.8	4.1	33	28	4.1	2.8
21	8.6	2.5	4.3	32	28	4.1	2.8
22	8.6	5.6	4.3	32	30	4.1	2.8
23	8.6	5.9	4.6	34	20	6.3	4.1
24	3.5	5.0	4.6	33	13	3.0	4.9
25	3.5	5.0	4.6	31	9.9	3.0	4.9
26	8.6	5.0	4.6	32	7.7	3.0	4.9
27	8.6	5.3	6.0	32	7.3	3.0	4.9
28	9.3	4.7	6.0	32	7.3	3.0	4.9
29	9.3	4.7	7.3	33	7.3	2.5	4.9
30	9.3	4.7	8.8	33	7.3	2.5	4.9
31	9.3	------	8.8	------	7.3	2.5	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	9.3	3.5	8.37	515
April 8-30	21	2.5	9.27	423
May	30	4.1	12.1	744
June	34	8.8	20.8	1,240
July	39	7.3	26.2	1,610
August	8.0	2.5	4.65	286
September	10	2	4.57	272

BIG LOST RIVER BASIN

BIG LOST RIVER AT HOWELL RANCH, NEAR CHILLY, IDAHO

LOCATION.—Water-stage recorder in sec. 30, T. 8 N., R. 21 E., at Howell ranch, 9 miles southwest of Chilly and 21 miles northwest of Mackay.

RECORDS AVAILABLE.—April 1904 to August 1906; July 1907 to November 1914; May 1920 to September 1933.

DISCHARGE.—Maximum during year, 1,910 second-feet June 16 (gage height, 4.08 feet); minimum, 48 second-feet Apr. 14 (gage height, 0.76 foot). A lesser discharge may have occurred during the winter.

1904–14, 1920–33: Maximum, 3,500 second-feet June 12, 1921 (gage height, 5.94 feet); minimum, 35 second-feet Apr. 2, 1909 (gage height, 1.9 feet, former datum).

REMARKS.—Records good. No records during winter. Result of measurement shown for Apr. 4; discharge estimated Nov. 22–30, Apr. 1–3, 5–13. No regulation. Several small diversions above, and Hammerly Ditch (capacity about 20 second-feet) diverts a quarter of a mile below station. Water commissioner for Big Lost River furnished gage-height record and six discharge measurements.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	107	88		197	1,560	407	122	74
2	107	96	50	177	1,560	388	129	70
3	107	84		160	1,660	383	118	66
4	107	80	54	160	1,420	383	116	64
5	105	88		160	1,160	379	107	63
6	103	100	55	151	1,160	374	105	62
7	120	77		142	1,240	352	103	62
8	144	73		135	1,120	313	105	63
9	124	94		129	1,460	309	114	64
10	120	73		129	1,510	292	114	64
11	118	73	50	127	1,560	274	107	64
12	118	84		124	1,610	262	103	64
13	115	84		120	1,660	255	91	63
14	115	90	49	124	1,610	249	93	62
15	111	80	58	144	1,610	249	90	64
16	109	92	64	151	1,610	235	86	64
17	109	94	70	160	1,560	218	86	62
18	105	88	64	160	1,200	202	86	60
19	105	82	67	163	1,040	192	101	59
20	100	88	60	163	900	189	95	59
21	109	79	64	182	846	179	90	58
22	105		69	226	820	172	91	58
23	103		93	223	754	160	95	60
24	103		103	243	723	158	93	62
25	98		131	309	687	149	90	64
26	109	75	131	470	627	147	93	66
27	105		151	675	591	147	95	63
28	103		235	687	585	142	80	60
29	100		288	780	509	138	75	59
30	92		232	1,080	442	131	72	57
31	82			1,380		127	74	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	144	82	108	6,640
November	100		82.1	4,890
April	288		86.8	5,160
May	1,380	120	298	18,300
June	1,660	442	1,160	69,000
July	407	127	244	15,000
August	129	72	97.4	5,990
September	74	57	62.7	3,730

NOTE.—R. W. Thompson, water commissioner for Big Lost River, estimated a mean flow Dec. 1–31 of 60 second-feet; Jan. 1 to Mar. 31, 50 second-feet.

BIG LOST RIVER (EAST CHANNEL) ABOVE MACKAY RESERVOIR, NEAR MACKAY, IDAHO

LOCATION.—Water-stage recorder in sec. 32, T. 8 N., R. 23 E., 3 miles above Mackay Dam, above flow line of reservoir, and 7½ miles above Mackay.

RECORDS AVAILABLE.—May 1919 to September 1933.

DISCHARGE.—Maximum during year, 750 second-feet June 16 (gage height, 3.31 feet); channel reported dry Nov. 22 to May 30, July 28 to Sept. 30.

1919–33: Maximum, 1,000 second-feet June 25, 1932 (gage height, 3.48 feet); no flow for long periods during 1920 and 1923–33.

REMARKS.—Records fair. Diversions for irrigation above station. This record represents a part of natural flow of Big Lost River and, taken in conjunction with records for west channel of Big Lost River (p. 59) and east and west channels of Warm Spring Creek (pp. 63 and 64), shows entire flow of Big Lost River at this point (p. 60) and practically entire surface flow into Mackay Reservoir. Gage-height record and five discharge measurements furnished by water commissioner for Big Lost River.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	May	June	July	Day	Oct.	Nov.	May	June	July
1	3	2	0	202	132	16	3	1	0	706	12
2	2	3	0	319	116	17	3	1	0	706	9
3	2	2	0	414	90	18	3	1	0	591	6
4	2	2	0	458	81	19	3	1	0	489	4
5	2	2	0	428	78	20	3	1	0	400	3
6	3	2	0	400	73	21	3	1	0	341	3
7	4	2	0	414	66	22	3	0	0	322	2
8	4	2	0	414	58	23	3	0	0	290	2
9	4	2	0	428	47	24	3	0	0	243	2
10	4	2	0	574	38	25	3	0	0	223	2
11	4	1	0	591	35	26	3	0	0	219	1
12	4	1	0	609	25	27	3	0	0	197	1
13	3	1	0	665	21	28	3	0	0	185	0
14	3	1	0	686	19	29	3	0	0	178	0
15	3	1	0	706	16	30	3	0	0	156	0
						31	3		17		0

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	4	2	3.1	191
November	3	0	1.1	65
May	17	0	0.5	31
June	706	156	418	24,900
July	132	0	30.4	1,870
The year	706	0	37.4	27,100

NOTE.—No flow during months omitted.

BIG LOST RIVER (WEST CHANNEL) ABOVE MACKAY RESERVOIR, NEAR MACKAY, IDAHO

LOCATION.—Water-stage recorder in sec. 5, T. 7 N., R. 23 E., 3 miles above Mackay Dam, above flow line of reservoir, and 7½ miles above Mackay.

RECORDS AVAILABLE—May 1919 to September 1933.

DISCHARGE.—Maximum during year, 275 second-feet June 16 (gage height, 2.37 feet); minimum, 16 second-feet May 12–16; minimum gage height, 1.08 feet Apr. 25 and 26.

1919–33: Maximum (estimated), 1,200 second-feet June 5–16, 1921 (gage height, 4.45 feet); minimum, 12 second-feet Feb. 4 and 18, 1932 (gage height, 0.98 foot).

REMARKS—Records good. Diversions for irrigation above station. This record represents a portion of the natural flow of Big Lost River and, taken in conjunction with records for east channel of Big Lost River (p. 58) and east and west channels of Warm Spring Creek (pp. 63 and 64), shows entire surface flow of Big Lost River at this point (p. 60) and practically the entire flow into Mackay Reservoir. Gage-height record and results of seven discharge measurements furnished by water commissioner for Big Lost River.

Daily discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	35	28	17	22	20	19	19	34	62	26	27
2	38	37	28	17	22	19	19	19	74	57	26	27
3	38	37	28	18	22	19	19	19	107	52	26	28
4	38	35	27	18	22	19	18	19	133	47	27	28
5	38	35	26	19	22	19	18	18	129	47	27	28
6	38	35	26	19	20	19	18	18	121	47	28	28
7	38	35	24	19	20	19	18	17	131	46	30	27
8	38	35	24	19	23	19	18	17	142	44	31	27
9	38	35	23	19	20	19	18	17	159	40	31	28
10	38	35	23	20	21	20	18	17	214	37	31	28
11	38	35	23	20	22	20	19	17	226	35	32	28
12	37	35	22	20	22	20	18	16	229	34	30	28
13	37	35	22	20	22	20	18	16	249	32	30	30
14	37	35	21	20	22	19	18	16	260	31	30	31
15	37	35	20	20	22	20	18	16	260	31	28	32
16	37	35	19	20	22	20	18	16	260	31	27	34
17	37	35	19	20	20	22	18	17	254	30	28	34
18	37	35	18	20	20	22	18	17	209	30	27	32
19	37	35	18	20	20	22	19	17	165	30	26	32
20	37	34	18	20	20	22	19	17	140	28	26	32
21	37	32	18	20	20	20	19	17	119	28	26	32
22	34	31	17	20	20	20	19	18	115	27	27	32
23	34	31	17	20	20	20	18	18	107	27	28	32
24	35	30	17	22	20	20	18	18	98	27	27	34
25	35	30	17	22	20	20	17	18	92	27	26	34
26	35	30	17	22	20	20	17	18	88	27	27	34
27	35	30	17	22	20	20	18	18	81	27	27	34
28	35	30	17	22	20	19	18	18	76	26	27	32
29	35	30	17	22	------	19	19	18	74	24	27	32
30	35	28	17	22	------	19	19	18	67	24	28	32
31	35	------	17	22	------	19	------	17	------	24	27	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	38	34	36.6	2,250
November	37	28	33.5	1,990
December	28	17	20.8	1,280
January	22	17	20.0	1,230
February	23	20	20.9	1,160
March	22	19	19.8	1,220
April	19	17	18.3	1,090
May	19	16	17.5	1,080
June	260	34	147	8,750
July	62	24	34.8	2,140
August	32	26	27.9	1,720
September	34	27	30.6	1,820
The year	260	16	35.5	25,700

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, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	153	160	151	132	136	128	121	89	353	312	113	121
2	154	163	151	132	136	127	122	90	526	287	116	120
3	157	161	150	133	136	126	121	90	665	251	117	121
4	159	157	149	133	136	127	119	90	746	241	121	121
5	158	157	149	134	136	127	119	88	710	243	122	121
6	159	157	148	134	134	127	120	89	677	233	122	122
7	161	159	146	134	131	127	119	88	701	220	124	121
8	161	159	141	134	133	127	119	88	721	208	126	123
9	161	160	140	134	129	125	119	88	765	190	126	126
10	163	160	143	135	130	126	119	89	986	173	125	126
11	163	159	141	136	133	125	119	89	1,020	169	125	126
12	162	160	140	136	135	125	117	87	1,050	159	122	127
13	161	160	139	136	133	125	116	87	1,130	148	120	129
14	160	160	140	136	132	124	116	87	1,160	146	120	131
15	157	161	136	136	133	125	116	87	1,180	142	117	132
16	158	162	135	136	133	125	115	88	1,180	138	115	135
17	157	162	135	135	130	128	116	90	1,180	134	117	134
18	157	162	134	135	131	127	112	92	1,000	129	116	132
19	158	162	134	134	131	127	112	91	831	127	117	131
20	159	161	134	134	130	127	110	89	700	122	116	131
21	159	160	134	134	130	125	109	91	605	121	116	130
22	156	158	133	134	129	125	107	94	581	118	118	129
23	155	156	133	134	129	123	104	94	539	116	119	129
24	157	155	133	136	128	123	99	94	480	118	120	131
25	157	153	133	136	130	123	90	95	450	118	119	132
26	160	153	133	136	130	123	89	96	439	118	120	133
27	160	154	133	136	130	125	89	95	407	117	120	133
28	160	154	133	136	130	125	88	96	389	115	120	131
29	160	154	133	136	-------	124	89	96	379	113	120	130
30	161	152	132	136	-------	124	89	101	345	111	121	130
31	161	-------	132	136	-------	121	-------	127	-------	111	120	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	163	153	159	9,780
November	163	152	158	9,400
December	151	132	139	8,550
January	136	132	135	8,300
February	136	128	132	7,330
March	128	121	125	7,690
April	122	88	110	6,550
May	127	87	92.1	5,660
June	1,180	345	730	43,400
July	312	111	163	10,000
August	126	113	120	7,380
September	135	120	128	7,620
The year	1,180	87	182	132,000

MACKAY RESERVOIR NEAR MACKAY, IDAHO

LOCATION.—Staff gage on head-gate tower of dam in sec. 12, T. 7 N., R. 23 E., 4 miles northwest of Mackay. Zero of gage is 6,000 feet above mean sea level.

RECORDS AVAILABLE.—January 1919 to September 1933.

EXTREMES.—Maximum contents during year, 23,870 acre-feet Apr. 23 (gage height, 49.18 feet); no available storage Aug. 27 to Sept. 12, Sept. 15–30 (gage height, 7.0 feet and less).

1919–33: Maximum contents, 40,500 acre-feet June 26, 1922 (gage height, 63.62 feet); no available storage during periods in 1919, 1920, 1924, 1926, 1929, 1931, 1932, 1933; minimum gage height, 6.6 feet Aug. 24 to Sept. 2, 1919.

REMARKS.—Capacity of reservoir is 38,400 acre-feet between gage heights 7.0 feet and 62.0 feet. During 1933 water was used for irrigation of about 6,160 acres of land near Arco, under the Carey Act project of the Utah Construction Co. Owing to the porous condition of foundation, there is considerable seepage around the dam, the greater part of which reappears between reservoir and station on Big Lost River below Mackay Reservoir, near Mackay. Gage-height record furnished by Utah Construction Co. through water commissioner for Big Lost River.

Contents, in acre-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,700	3,068	10,090	15,000	18,860	21,050	22,840	23,560	22,070	5,133	820	0
2	2,693	3,385	10,330	15,130	18,950	21,100	22,890	23,560	21,720	4,742	733	0
3	2,682	3,652	10,580	15,270	19,030	21,140	22,940	23,520	21,210	4,370	668	0
4	2,671	3,993	10,780	15,380	19,090	21,190	22,980	23,490	20,700	4,044	610	0
5	2,654	4,207	10,980	15,510	19,130	21,210	23,030	23,440	19,800	3,750	554	0
6	2,646	4,445	11,160	15,660	19,210	21,270	23,080	23,410	18,890	3,497	507	0
7	2,657	4,697	11,340	15,790	19,320	21,360	23,130	23,410	17,990	3,272	463	0
8	2,664	4,913	11,460	15,940	19,430	21,460	23,180	23,420	17,450	3,060	463	0
9	2,654	5,178	11,540	16,090	19,540	21,510	23,230	23,440	17,200	2,869	463	0
10	2,671	5,466	11,640	16,280	19,650	21,560	23,270	23,490	17,000	2,711	430	0
11	2,693	5,689	11,720	16,450	19,730	21,600	23,320	23,410	16,690	2,594	394	0
12	2,707	5,910	11,930	16,590	19,820	21,650	23,370	23,410	15,950	2,514	399	0
13	2,718	6,190	12,160	16,740	19,940	21,740	23,420	23,410	15,210	2,412	363	5
14	2,718	6,455	12,380	16,900	20,040	21,830	23,470	23,420	14,660	2,313	316	3
15	2,707	6,681	12,570	17,060	20,130	21,890	23,520	23,390	14,160	2,244	268	0
16	2,689	6,890	12,700	17,230	20,220	21,930	23,570	23,420	13,470	2,166	219	0
17	2,689	7,120	12,810	17,340	20,310	21,980	23,620	23,440	12,700	2,086	167	0
18	2,700	7,327	12,920	17,450	20,430	22,060	23,670	23,420	11,880	1,996	139	0
19	2,689	7,542	13,030	17,570	20,540	22,120	23,720	23,410	11,520	1,894	122	0
20	2,682	7,768	13,160	17,670	20,590	22,210	23,770	23,360	11,150	1,787	105	0
21	2,682	7,997	13,310	17,780	20,640	22,260	23,820	23,390	-------	1,677	88	0
22	2,682	8,230	13,460	17,910	20,660	22,310	23,840	23,390	-------	1,584	72	0
23	2,671	8,468	13,600	18,010	20,680	22,360	23,870	23,360	-------	1,511	55	0
24	2,664	8,709	13,730	18,090	20,770	22,410	23,860	23,310	-------	1,440	45	0
25	2,675	8,910	13,860	18,180	20,820	22,450	23,810	23,320	7,261	1,362	42	0
26	2,693	9,115	14,070	18,260	20,900	22,500	23,720	23,310	6,817	1,287	14	0
27	2,707	9,376	14,240	18,370	20,960	22,600	23,690	23,290	6,491	1,219	0	0
28	2,718	9,554	14,390	18,470	21,000	22,650	23,690	23,310	6,125	1,144	0	0
29	2,718	9,746	14,540	18,580	-------	22,690	23,560	23,290	5,799	1,073	0	0
30	2,718	9,971	14,690	18,690	-------	22,740	23,490	23,200	5,466	1,000	0	0
31	2,826	-------	14,850	18,770	-------	22,790	-------	23,100	-------	922	0	------

NOTE.—Gage was destroyed when gate tower was dynamited about 8 p.m., June 21; no record until gage was repaired June 25.

BIG LOST RIVER BELOW MACKAY RESERVOIR, NEAR MACKAY, IDAHO

LOCATION.—Water-stage recorder in sec. 18, T. 7 N., R. 24 E., 450 feet below Oleson suspension bridge, 1 mile below heading of Sharp Ditch, 1½ miles below Mackay Dam, and 2½ miles above Mackay.

RECORDS AVAILABLE.—December 1903 to August 1906; May 1912 to March 1915; January 1919 to September 1933. From April 1913 to March 1915 at station 1 mile below present site.

DISCHARGE.—Maximum during year, 1,610 second-feet June 18 (gage height, 4.52 feet); minimum, 49 second-feet Nov. 2–5 (gage height, 1.47 feet).

1903–6, 1912–15, 1919–33: Maximum, 2,990 second-feet June 10, 1921 (gage height, 5.79 feet); minimum, 25 second-feet Nov. 5–8, 1926 (gage height, 1.23 feet).

REMARKS.—Records good. Discharge interpolated Oct. 10–14, Feb. 10, May 15, 16, 21–23. Numerous diversions above Mackay Reservoir, but Sharp Ditch is only diversion between gage and reservoir. Flow regulated by storage in Mackay Reservoir. Gage-height record and eight discharge measurements furnished by water commissioner for Big Lost River.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	177	55	77	87	104	116	122	119	564	519	186	137
2	177	49	77	87	104	116	122	119	693	496	177	137
3	177	49	77	87	104	119	125	119	928	480	173	137
4	177	49	77	87	104	119	122	119	1,100	463	173	137
5	177	51	77	90	104	119	122	107	1,250	436	173	137
6	177	51	77	90	104	119	119	107	1,220	409	170	140
7	180	53	79	90	104	119	119	107	1,160	383	164	137
8	180	53	79	90	104	119	119	107	1,020	362	161	134
9	180	55	79	90	107	119	119	107	899	338	158	137
10	181	55	79	93	107	119	119	107	1,040	297	161	130
11	181	55	79	93	107	119	119	107	1,250	259	161	143
12	182	55	79	93	107	119	119	104	1,370	235	155	143
13	182	57	79	93	107	119	116	104	1,490	235	155	143
14	182	60	79	93	107	119	116	104	1,460	224	158	143
15	183	62	79	93	110	119	113	104	1,430	213	161	143
16	183	62	79	93	110	122	107	104	1,520	206	164	137
17	183	65	79	93	110	122	107	104	1,580	203	161	134
18	183	67	79	93	110	122	107	104	1,460	210	158	137
19	186	67	79	93	110	122	107	104	1,070	206	158	137
20	186	67	79	96	110	122	110	101	928	199	152	140
21	186	69	79	96	113	119	110	102	928	196	149	143
22	186	69	82	96	113	122	110	102	1,370	193	149	143
23	186	72	82	96	113	122	116	103	1,070	189	152	143
24	186	74	82	96	116	122	116	104	899	186	146	143
25	186	74	82	96	116	122	113	104	784	189	143	146
26	186	77	85	99	116	122	113	104	653	180	146	146
27	186	77	85	99	116	122	113	99	642	180	149	149
28	189	77	87	99	116	122	113	99	631	180	143	152
29	189	77	87	99	------	122	116	99	603	173	140	149
30	189	77	87	101	------	122	119	99	569	173	137	149
31	155	------	87	101	------	122	------	436	------	177	137	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	189	155	182	11,200
November	77	49	62.7	3,730
December	87	77	80.4	4,940
January	101	87	93.6	5,760
February	116	104	109	6,050
March	122	116	120	7,380
April	125	107	116	6,900
May	436	99	116	7,130
June	1,580	564	1,050	62,500
July	519	173	271	16,700
August	186	137	157	9,650
September	152	134	141	8,390
The year	1,580	49	208	150,000

WARM SPRING CREEK (EAST CHANNEL) NEAR MACKAY, IDAHO

LOCATION.—Staff gage in NE¼ sec. 5, T. 7 N., R. 23 E., 500 feet above junction with west channel of Warm Spring Creek and 7½ miles northwest of Mackay.

RECORDS AVAILABLE.—May 1919 to September 1933.

DISCHARGE.—Maximum during year, 74 second-feet June 17; minimum, 16 second-feet May 5–9, 19–22.

1919–33: Maximum, 225 second-feet June 15, 1922; minimum, 9 second-feet May 8, 9, 13, and 14, 1919, and May 18–21, 1920.

REMARKS.—Records fair. One or more gage readings each week; discharge estimated or interpolated for days of no gage height. Natural flow practically all diverted during irrigation season. Flow during summer represents return flow from irrigation above. Record represents a portion of natural flow of Big Lost River and, taken in conjunction with records for west channel of Warm Spring Creek (p. 64) and east and west channels of Big Lost River (p. 58 and p. 59), shows practically entire flow of Big Lost River (p. 60) which enters Mackay Reservoir. Gage-height record and six discharge measurements furnished by water commissioner for Big Lost River.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	36	36	32	32	28	28	17	31	34	23	27
2	32	36	36	32	32	28	28	17	36	32	24	27
3	33	36	36	32	32	28	27	17	41	29	25	27
4	33	36	36	32	32	28	27	17	43	30	27	27
5	34	36	36	32	32	28	27	16	44	32	28	27
6	34	36	35	32	32	29	28	16	46	31	28	28
7	35	36	35	32	32	29	28	16	47	29	28	28
8	35	36	34	32	31	29	28	16	53	28	27	29
9	35	37	34	32	31	28	28	16	58	26	27	29
10	35	37	34	32	31	28	28	17	64	25	27	29
11	35	37	34	33	31	28	27	17	66	26	26	29
12	35	37	34	33	31	28	27	17	68	27	26	30
13	35	37	33	33	31	28	26	17	70	25	26	30
14	34	37	33	33	31	28	26	17	72	26	26	31
15	34	37	32	33	31	28	26	17	73	26	26	31
16	34	38	32	33	31	28	25	17	73	26	25	31
17	34	38	32	33	31	28	25	17	74	26	26	31
18	34	38	32	32	31	28	24	17	67	25	26	31
19	35	38	32	32	31	28	24	16	60	25	27	30
20	35	38	32	32	30	28	23	16	52	24	27	30
21	35	39	32	32	30	28	23	16	45	24	27	29
22	35	39	32	32	29	28	22	16	44	23	27	29
23	35	38	32	32	29	28	20	17	43	23	27	29
24	35	38	32	32	28	28	19	17	43	23	27	29
25	35	37	32	32	28	28	17	17	41	23	27	29
26	36	37	32	32	28	28	17	18	40	23	27	29
27	36	37	32	32	28	28	17	18	39	23	27	29
28	36	37	32	32	28	28	17	18	38	23	27	29
29	36	37	32	32	------	28	17	18	37	23	27	29
30	36	36	32	32	------	28	17	19	36	23	27	29
31	36	------	32	32	------	28	------	19	------	23	27	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	36	32	34.6	2,130
November	39	36	37.1	2,210
December	36	32	33.2	2,040
January	33	32	32.2	1,980
February	32	28	30.5	1,690
March	29	28	28.1	1,730
April	28	17	23.9	1,420
May	19	16	17.0	1,050
June	74	31	51.5	3,060
July	34	23	26.0	1,600
August	28	23	26.5	1,630
September	31	27	29.1	1,730
The year	74	16	30.8	22,300

WARM SPRING CREEK (WEST CHANNEL) NEAR MACKAY, IDAHO

LOCATION.—Water-stage recorder in NE¼ sec. 5, T. 7 N., R. 23 E., 500 feet above junction with east channel of Warm Spring Creek and 7½ miles above Mackay.
RECORDS AVAILABLE.—May 1919 to September 1933.
DISCHARGE.—Maximum during year, 150 second-feet June 16 (gage height, 1.35 feet); minimum, 53 second-feet Apr. 28 to May 1 (gage height, 0.64 foot).
1919–33: Maximum, 411 second-feet June 12, 1921 (gage height, 3.38 feet); minimum, 50 second-feet Apr. 28, 1930.
REMARKS.—Records good. Practically entire flow diverted during irrigation season. Flow during summer represents return flow from irrigation above station. This record represents a part of the natural flow of Big Lost River and, taken in conjunction with the records for east channel of Warm Spring Creek (p. 63) and east and west channels of Big Lost River (p. 58 and p. 59), shows practically entire surface flow of Big Lost River which enters Mackay Reservoir. Gage-height record and six discharge measurements furnished by water commissioner for Big Lost River.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	87	87	83	82	80	74	53	86	84	64	67
2	82	87	87	83	82	80	75	54	97	82	66	66
3	84	86	86	83	82	79	75	54	103	80	66	66
4	86	84	86	83	82	80	74	54	112	83	67	66
5	84	84	87	83	82	80	74	54	109	86	67	66
6	84	84	87	83	82	79	74	55	110	82	66	66
7	84	86	87	83	79	79	73	55	109	79	66	66
8	84	86	83	83	79	79	73	55	112	78	68	67
9	84	86	83	83	78	78	73	55	120	77	68	69
10	86	86	86	83	78	78	73	55	134	73	67	69
11	86	86	84	83	80	77	73	55	138	73	67	69
12	86	87	84	83	82	77	72	54	140	73	66	69
13	86	87	84	83	80	77	72	54	144	70	64	69
14	86	87	86	83	79	77	72	54	146	70	64	69
15	83	88	84	83	80	77	72	54	146	69	63	69
16	84	88	84	83	80	77	72	55	146	69	63	70
17	83	88	84	82	79	78	73	56	145	69	63	69
18	83	88	84	83	80	77	70	58	133	68	63	69
19	83	88	84	82	80	77	69	58	117	68	64	69
20	84	88	84	82	80	77	68	56	108	67	63	69
21	84	88	84	82	80	77	67	58	100	66	63	69
22	84	88	84	82	80	77	66	60	100	66	64	68
23	83	87	84	82	80	75	66	59	99	64	64	68
24	84	87	84	82	80	75	62	59	96	66	66	68
25	84	86	84	82	82	75	56	60	94	66	66	69
26	86	86	84	82	82	75	55	60	92	67	66	70
27	86	87	84	82	82	77	54	59	90	66	66	70
28	86	87	84	82	82	78	53	60	90	66	66	70
29	86	87	84	82	------	77	53	60	90	66	66	69
30	87	88	83	82	------	77	53	64	86	64	66	69
31	87	------	83	82	------	74	------	74	------	64	66	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	87	80	84.5	5,200
November	88	84	86.7	5,160
December	87	83	84.6	5,200
January	83	82	82.5	5,070
February	82	78	80.5	4,470
March	80	74	77.4	4,760
April	75	53	67.9	4,040
May	74	53	57.1	3,510
June	146	86	113	6,720
July	86	64	71.6	4,400
August	68	63	65.3	4,020
September	70	66	68.3	4,060
The year	146	53	78.2	56,600

SHARP DITCH NEAR MACKAY, IDAHO

LOCATION.—Staff gage in sec. 12, T. 7 N., R. 23 E., 250 feet below head of ditch, half a mile below Mackay Reservoir, and 3½ miles northwest of Mackay.

RECORDS AVAILABLE.—June 1912 to October 1914; March 1919 to September 1933.

DISCHARGE.—Maximum during year, 28 second-feet June 22; no flow Nov. 17 to Feb. 28.

1912–14, 1919–33: Maximum, 42 second-feet June 23, 1921; usually no flow during winter and other times when water is shut off.

REMARKS.—Records fair. Discharge estimated Mar. 1 to Apr. 12, Apr. 26. Sharp Ditch diverts from east side of Big Lost River in SE¼ sec. 12, T. 7 N., R. 23 E., 1 mile above station on Big Lost River below Mackay Reservoir, near Mackay, Idaho, and half a mile below Mackay Reservoir. Water used for irrigation on land northwest of Mackay and above Streeter Ditch. Gage-height record and four discharge measurements furnished by water commissioner for Big Lost River.

Discharge, in second-feet, 1932–33

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

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	14	5	9.5	584
November	3	0	1.4	83
March	------	------	1.5	92
April	20	------	7.8	464
May	18	13	15.5	953
June	28	16	23.7	1,410
July	22	15	17.8	1,090
August	16	12	13.9	855
September	15	14	14.1	839
The year	28	0	9.8	6,370

NOTE.—No flow during months omitted.

PORTNEUF RIVER BASIN

PORTNEUF RIVER AT TOPAZ, IDAHO

LOCATION.—Staff gage 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 above 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 1933.

DISCHARGE.—Maximum during year, 358 second-feet May 28 (gage height, 2.34 feet); minimum, 93 second-feet Sept. 22 (gage height, 0.88 foot).

1913–15, 1919–33: Maximum, 902 second-feet Apr. 3, 1917 (gage height, 6.1 feet, referred to original gage); minimum, 87 second-feet Sept. 8, 1931 (gage height, 0.86 foot).

REMARKS.—Records good. Discharge interpolated July 4. Flow regulated somewhat by storage in Portneuf-Marsh Valley Canal Co.'s reservoir, near Chesterfield. Numerous ranch diversions above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	122	140	138	132	124	178	230	285	206	176	134
2	111	145	142	138	130	124	190	214	294	200	178	111
3	113	147	142	138	132	124	206	204	294	188	172	104
4	111	147	142	136	136	126	226	200	285	175	170	104
5	113	145	140	136	136	121	249	212	267	162	170	104
6	109	143	130	134	136	124	240	216	249	162	172	104
7	111	143	130	134	134	124	230	194	249	186	174	104
8	113	143	132	134	130	128	230	194	230	204	178	142
9	113	145	138	132	124	132	214	190	226	204	170	140
10	115	145	136	134	121	132	196	184	222	200	164	130
11	115	143	132	136	117	132	188	182	222	204	160	130
12	113	142	130	130	124	140	186	174	222	192	164	130
13	115	142	134	132	130	140	184	168	220	194	166	130
14	113	142	132	132	130	134	184	170	220	184	166	130
15	113	142	130	136	126	132	180	170	212	180	168	104
16	117	145	130	136	130	130	186	194	212	180	164	100
17	117	143	128	138	128	124	212	240	216	186	157	100
18	117	142	128	136	126	132	216	285	224	182	166	100
19	128	140	130	136	122	126	218	285	240	174	170	100
20	128	142	132	134	122	130	200	285	240	178	170	100
21	128	145	132	134	124	132	190	310	230	174	151	97
22	132	143	132	134	124	136	190	342	224	166	147	93
23	132	140	130	134	124	136	182	358	218	170	147	99
24	132	145	132	132	124	136	186	334	222	170	147	102
25	132	138	132	132	124	136	188	318	224	170	147	102
26	138	140	136	134	124	132	190	318	230	168	145	106
27	136	140	134	132	128	140	194	326	226	170	149	104
28	138	140	136	132	124	147	210	302	218	168	149	106
29	134	140	136	132	------	157	230	285	228	170	153	117
30	138	140	136	134	------	159	240	294	240	170	149	122
31	126	------	138	132	------	166	------	285	------	170	149	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	138	109	121	7,440
November	147	122	142	8,450
December	142	128	134	8,240
January	138	130	134	8,240
February	136	117	127	7,050
March	166	121	134	8,240
April	249	178	204	12,100
May	358	168	247	15,200
June	294	212	236	14,000
July	206	162	181	11,100
August	178	145	162	9,960
September	142	93	112	6,660
The year	358	93	161	117,000

PORTNEUF RIVER AT POCATELLO, IDAHO

LOCATION.—Water-stage recorder 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 1933; May 1897 to October 1899 at a site 1 mile upstream.

DISCHARGE.—Maximum during year, 515 second-feet Apr. 30 (gage height, 4.90 feet); minimum, 41 second-feet July 18 (gage height, 2.23 feet).

1897–99, 1911–33: Maximum, in excess of 2,000 second-feet during period May 13 to June 14, 1917; minimum, 14 second-feet July 4–11, 13, 17, 18, 1898.

REMARKS.—Records good except those for Oct. 23 to Mar. 6, which are fair. Discharge interpolated Dec. 8, Sept. 25–27. Numerous diversions for irrigation above station. Flow regulated by storage reservoir near Chesterfield.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	260	240				406	493	342	73	57	80
2	102	260	239				406	438	322	69	75	80
3	100	270	237				406	416	300	65	75	80
4	93	270	235			[a] 250	438	395	280	68	73	77
5	97	260	233		[a] 240		438	364	246	7[illegible]	74	75
6	100	260	229				427	374	223	65	71	74
7	100	260	223			250	416	364	212	62	68	75
8	102	270	201			250	406	332	199	80	70	71
9	108	260	179			250	384	311	180	82	70	71
10	108	260	216			270	364	300	170	77	68	77
11	105	260				290	353	290	161	76	79	76
12	102	250				311	332	270	155	74	77	79
13	102	250				342	332	242	147	64	76	79
14	102	250				342	311	235	114	57	77	79
15	102	250	[a] 210	[a] 240		332	311	242	101	55	73	77
16	108	250				332	342	260	93	54	70	81
17	105	270				342	364	300	82	53	69	86
18	104	270				342	384	364	85	52	70	86
19	107	260				342	395	406	85	47	73	86
20	107	260			[a] 250	342	395	427	76	49	76	86
21	110	250				353	374	427	65	53	73	88
22	110	248				342	353	471	65	54	70	86
23		242	[a] 220			342	364	504	64	49	70	86
24		239				322	384	471	64	56	69	88
25	[a] 180	237				322	406	449	64	52	69	92
26		239				332	416	427	69	58	71	95
27	260	239				342	416	427	71	56	74	99
28	260	239	[a] 230			364	427	416	70	54	75	102
29	260	237				395	460	384	76	53	77	95
30	260	237				406	504	364	71	50	79	94
31	260					406		353		53	81	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	260	93	139	8,550
November	270	237	254	15,100
December	240	179	220	13,500
January			240	14,800
February			246	13,700
March	406		315	19,400
April	504	311	390	23,200
May	504	235	371	22,800
June	342	64	142	8,450
July	82	47	60 7	3,730
August	81	57	72.5	4,460
September	102	71	83 3	4,960
The year	504	47	211	153,000

[a] Estimated.

TRIBUTARIES BETWEEN PORTNEUF RIVER AND SALMON FALLS CREEK

NORTH SIDE MINIDOKA CANAL NEAR MINIDOKA, IDAHO

LOCATION.—Water-stage recorder in sec. 1, T. 9 S., R. 25 E., 600 feet below head gates at Minidoka Dam and 6 miles south of Minidoka.

RECORDS AVAILABLE.—May 1909 to September 1933.

DISCHARGE.—Maximum daily discharge during year, 1,620 second-feet Apr. 29, May 4, 5; maximum gage height, 9.75 feet Apr. 29, May 5; no flow Dec. 9 to Apr. 5.

1909–33: Maximum, 1,670 second-feet July 11, 1932; no flow for several periods each year.

REMARKS.—Records excellent. Flow controlled by operation of head gates at Minidoka Dam.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Apr.	May	June	July	Aug.	Sept.
1	690	447	368	0	1,520	1,600	1,490	1,580	1,300
2	689	445	367	0	1,570	1,600	1,530	1,570	1,270
3	685	449	368	0	1,590	1,590	1,590	1,580	1,270
4	706	453	370	0	1,620	1,600	1,590	1,580	1,270
5	738	454	367	0	1,620	1,590	1,590	1,570	1,320
6	734	453	368	196	1,540	1,590	1,590	1,540	1,360
7	689	447	257	376	1,520	1,590	1,590	1,500	1,330
8	567	447	67	376	1,470	1,600	1,590	1,500	1,260
9	465	442	0	383	1,360	1,600	1,590	1,490	1,170
10	469	442	0	389	1,320	1,600	1,590	1,480	1,140
11	558	442	0	391	1,230	1,590	1,590	1,480	1,140
12	616	440	0	389	1,170	1,590	1,590	1,480	1,130
13	618	435	0	389	1,040	1,590	1,590	1,480	1,060
14	618	428	0	460	967	1,590	1,590	1,440	1,030
15	616	432	0	550	1,060	1,590	1,590	1,440	981
16	614	432	0	586	999	1,590	1,590	1,500	947
17	590	430	0	586	866	1,590	1,590	1,560	936
18	499	426	0	590	932	1,590	1,590	1,600	923
19	469	420	0	594	965	1,590	1,590	1,540	890
20	472	409	0	622	963	1,580	1,590	1,450	864
21	478	401	0	712	1,020	1,580	1,590	1,460	841
22	474	394	0	782	1,050	1,590	1,570	1,510	769
23	469	387	0	853	1,100	1,590	1,570	1,560	718
24	467	379	0	1,010	1,280	1,590	1,590	1,560	683
25	465	373	0	1,110	1,460	1,590	1,590	1,560	550
26	462	371	0	1,180	1,550	1,590	1,590	1,510	496
27	463	368	0	1,390	1,540	1,590	1,590	1,460	496
28	458	367	0	1,570	1,550	1,580	1,570	1,420	492
29	456	367	0	1,620	1,600	1,540	1,590	1,390	489
30	451	367	0	1,500	1,600	1,490	1,590	1,360	487
31	449	-------	0	-------	1,600	-------	1,590	1,330	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	738	449	555	34,100
November	454	367	418	24,900
December	370	0	81.7	5,020
April	1,620	0	620	36,900
May	1,620	866	1,310	80,600
June	1,600	1,490	1,590	94,600
July	1,590	1,490	1,580	97,200
August	1,600	1,330	1,500	92,200
September	1,360	487	954	56,800
The year	1,620	0	721	522,000

NOTE.—No flow during months omitted

SOUTH SIDE MINIDOKA CANAL NEAR MINIDOKA, IDAHO

LOCATION.—Water-stage recorder in sec. 12, T. 9 S., R. 25 E., 300 yards below head gates at Minidoka Dam and 6 miles south of Minidoka.

RECORDS AVAILABLE.—April 1909 to September 1933.

DISCHARGE.—Maximum daily discharge during year, 1,240 second-feet July 12–14 and 20–21; maximum gage height, 5.71 feet Aug. 2; no flow during winter months.

1909–33: Maximum, 1,240 second-feet May 19, 20, June 25, 1932, July 12–14, 20, 21, 1933; no flow during winter months.

REMARKS.—Records excellent. Flow regulated by operation of gates at Minidoka Dam.

Discharge, in second-feet, 1932–33

Day	Oct	Apr.	May	June	July	Aug.	Sept.
1	503	0	1,010	1,230	1,120	1,220	1,140
2	503	0	929	1,220	1,140	1,230	1,150
3	498	0	845	1,220	1,140	1,220	1,130
4	496	193	817	1,220	1,160	1,200	1,120
5	496	331	781	1,220	1,190	1,180	1,130
6	494	439	784	1,190	1,200	1,160	1,130
7	462	553	817	1,160	1,200	1,150	1,160
8	397	602	761	1,180	1,200	1,150	1,170
9	338	524	733	1,190	1,200	1,140	1,170
10	308	478	694	1,190	1,200	1,140	1,150
11	308	482	649	1,190	1,220	1,150	1,180
12	310	482	684	1,210	1,240	1,150	1,190
13	311	508	615	1,210	1,240	1,150	1,190
14	360	612	533	1,200	1,240	1,160	1,160
15	434	662	560	1,220	1,220	1,160	1,080
16	465	659	605	1,220	1,220	1,160	971
17	462	659	618	1,220	1,210	1,170	911
18	173	594	618	1,220	1,210	1,200	803
19	0	524	615	1,220	1,220	1,200	676
20	0	482	576	1,210	1,240	1,180	644
21	0	485	550	1,210	1,240	1,180	684
22	0	487	594	1,190	1,230	1,180	697
23	0	553	618	1,180	1,180	1,180	692
24	0	689	646	1,180	1,170	1,170	620
25	0	817	803	1,180	1,200	1,160	536
26	0	941	962	1,170	1,210	1,150	476
27	0	989	1,130	1,150	1,230	1,150	460
28	0	1,040	1,130	1,130	1,230	1,140	387
29	0	1,030	1,140	1,130	1,210	1,130	367
30	0	1,010	1,210	1,120	1,200	1,130	369
31	0	-------	1,230	-------	1,210	1,130	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	503	0	236	14,500
April	1,040	0	561	33,400
May	1,230	533	782	48,100
June	1,230	1,120	1,190	70,800
July	1,240	1,120	1,200	73,800
August	1,230	1,130	1,170	71,900
September	1,190	367	885	52,700
The year	1,240	0	505	365,000

NOTE.—No flow during months omitted.

GOOSE CREEK ABOVE TRAPPER CREEK, NEAR OAKLEY, IDAHO

LOCATION.—Water-stage recorder in sec. 13, T. 15 S., R. 21 E., 5 miles above Trapper Creek and 10 miles south of Oakley.

RECORDS AVAILABLE.—April 1911 to September 1916; March 1919 to September 1933.

DISCHARGE.—Maximum during year, 159 second-feet May 29 (gage height, 3.23 feet); minimum, 3.8 second-feet Aug. 17, 18 (gage height, 1.44 feet).

1911–16, 1919–33: Maximum, 670 second-feet May 18, 1921; maximum gage height (ice affected), 5.6 feet Feb. 21, 1927; minimum, about 0.2 second-foot July 24, 1931.

REMARKS.—Records good except those for Nov. 6–11, which are fair, and those for Dec. 6 to Mar. 15, which are poor. Discharge estimated Nov. 6–11, Dec. 6 to Mar. 15; interpolated Oct. 8–13, 25–27, Nov. 1–3, 16, 17. Small diversions for irrigation above station. Practically entire flow passing station is stored in Oakley Reservoir. Gage-height record furnished by Oakley Canal Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	19	22				44	98	142	18	8.9	5.4
2	12	20	22				44	103	138	18	9.3	5.4
3	12	20	22			20	45	97	132	12	8.2	5.0
4	12	21	21				47	89	124	12	7.4	5.0
5	12	24	17				49	88	121	14	6.8	4.8
6	12						51	85	116	14	6.4	4.6
7	13						51	77	106	16	6.4	4.0
8	13				16	35	51	72	94	15	6.8	4.2
9	14	20					51	70	81	16	7.1	4.4
10	14						50	66	84	13	6.4	4.6
11	14						50	64	82	11	5.7	4.8
12	14	17					49	63	74	11	5.0	4.8
13	15	17	14			50	44	67	71	11	4.8	4.8
14	15	22					40	70	66	10	4.6	5.0
15	15	21					40	70	63	9.3	4.4	5.4
16	15	22		18		55	39	76	56	9.3	4.4	5.7
17	15	24				57	41	89	44	11	4.2	6.0
18	17	25				54	48	94	46	19	4.2	5.0
19	17	27				54	49	98	44	16	5.0	5.4
20	17	27				59	49	88	38	18	5.7	5.4
21	16	26				58	48	93	40	16	5.4	5.4
22	18	25			20	59	42	110	36	15	5.0	5.7
23	18	22				54	41	129	27	14	4.8	6.8
24	18	21				50	41	122	20	12	4.8	7.8
25	18	22				50	43	127	17	11	4.8	9.7
26	18	25	16			49	54	126	15	10	4.8	10
27	18	24				49	67	131	13	10	5.7	10
28	18	24				45	77	141	14	9.7	6.8	10
29	18	22				45	80	156	14	8.9	7.1	10
30	18	23				44	89	154	16	8.2	6.4	10
31	18					44		142		7.8	6.0	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	18	12	15.4	947
November	27	17	22.0	1,310
December	22		15.8	972
January			18.0	1,110
February			17.9	994
March	59		43.6	2,680
April	89	39	50.5	3,000
May	156	63	98.5	6,060
June	142	13	64.5	3,840
July	19	7.8	12.8	787
August	9.3	4.2	5.91	363
September	10	4.0	6.17	367
The year	156	4.0	31.0	22,400

OAKLEY RESERVOIR NEAR OAKLEY, IDAHO

LOCATION.—Staff gage immediately above right abutment of dam or Goose Creek, in sec. 19, T. 14 S., R. 22 E., 4 miles southwest of Oakley.

RECORDS AVAILABLE.—October 1912 to September 1933.

EXTREMES.—Maximum contents, 14,800 acre-feet June 3, 5–7; maximum gage height, 61.5 feet June 5; no storage after 6 p.m. Sept. 28.

1913–33: Maximum contents, 74,600 acre-feet June 15, 1921 (gage height, 136.2 feet); reservoir drained at close of season 1915, 1919, 1920, 1926, and 1933.

REMARKS.—Zero of gage corresponds to elevation bottom of diversion tunnel and zero capacity. Gage height 136.0 feet corresponds to elevation crest of spillway and 74,350 acre-feet capacity. Water is used for irrigation of lands along Goose Creek in Oakley Canal Co. project. Gage-height record and table of storage capacity furnished by Oakley Canal Co.

Contents, in acre-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	912	2,460	4,180	5,450	7,110	8,490	11,500	13,100	14,600	9,720	------	------
2	------	------	------	------	------	------	------	13,500	------	9,590	------	------
3	------	------	------	------	------	------	------	------	14,800	9,410	------	------
4	------	------	------	------	------	------	11,800	------	------	9,330	4,080	1,300
5	------	------	------	------	------	8,860	------	------	14,800	9,210	3,990	1,220
6	------	------	------	------	------	------	------	13,400	14,800	8,950	3,750	------
7	------	------	------	------	------	------	------	------	14,800	8,740	3,450	672
8	------	------	------	------	------	------	11,700	------	14,700	8,510	3,060	702
9	------	------	4,670	------	------	------	------	------	14,600	8,290	2,740	------
10	------	------	------	------	------	------	------	14,000	------	8,290	------	------
11	------	------	------	------	------	------	------	------	14,100	8,290	------	------
12	------	------	------	------	------	9,370	------	14,000	14,000	8,320	------	794
13	------	------	------	------	------	------	------	13,900	13,800	8,180	2,970	------
14	------	------	------	------	------	------	12,300	13,900	13,500	7,880	------	827
15	1,480	3,200	4,880	6,100	7,740	9,680	------	14,000	13,400	7,460	------	------
16	------	------	------	------	------	------	------	14,000	13,000	7,180	------	------
17	------	------	------	------	------	------	------	------	12,800	6,840	------	280
18	------	------	------	------	------	------	------	14,100	12,500	6,550	1,740	------
19	------	------	------	------	------	10,100	------	------	12,300	6,350	------	------
20	------	------	------	------	------	------	------	------	12,100	6,100	------	411
21	------	------	------	------	------	------	------	------	11,800	5,870	------	------
22	------	------	------	------	------	------	12,600	14,100	11,500	5,590	------	468
23	------	------	------	------	------	------	------	14,100	11,300	5,590	1,760	------
24	------	------	------	------	------	------	------	14,200	11,000	------	1,620	528
25	------	------	------	------	------	------	------	------	10,800	5,700	------	568
26	------	------	------	------	------	10,900	------	------	10,500	5,590	------	492
27	------	------	------	------	------	------	------	14,400	10,400	5,330	1,130	366
28	------	------	------	------	------	11,100	13,000	14,500	10,100	5,030	------	185
29	------	------	------	------	------	------	------	14,600	9,940	4,610	------	0
30	------	------	------	------	------	------	------	------	9,830	4,220	------	0
31	------	------	------	------	------	------	------	14,600	------	3,910	------	------

TRAPPER CREEK NEAR OAKLEY, IDAHO

LOCATION.—Water-stage recorder in sec. 34, T. 14 S., R. 21 E., 4 miles above Oakley Dam and 7 miles southwest of Oakley. Prior to Oct. 1, 1931, gage 1½ miles upstream was used.

RECORDS AVAILABLE.—May 1911 to September 1916; March 1919 to September 1933.

DISCHARGE.—Maximum during year, 35 second-feet June 2 (gage height, 4.66 feet); minimum, 6.7 second-feet Aug. 16, 17 (gage height, 4.01 feet).

1911–16, 1919–33: Maximum recorded, 98 second-feet May 2^, June 8, 1921; a higher flow may have occurred during cloudburst about midnight Aug. 15, 1931; minimum probably occurs during the winter.

REMARKS.—Records good except those estimated, Dec. 6 to Mar. 20, which are fair. Few small diversions above station. Practically entire flow passing gage is stored in Oakley Reservoir. Gage-height record furnished by Oakley Canal Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	8.5	8.8				10	21	33	12	8.0	7.8
2	7.8	8.8	8.8				10	20	34	12	7.5	7.5
3	7.8	8.8	8.8				11	19	33	11	7.8	7.5
4	7.8	8.5	8.8				12	18	32	11	7.5	7.5
5	7.8	8.5	8.8				12	18	31	11	7.5	7.5
6	7.8	8.8				9	12	19	30	11	7.5	7.5
7	7.8	9.0					12	18	29	11	7.8	7.8
8	7.8	8.8					12	18	27	11	7.5	8.0
9	7.8	8.8					11	17	26	10	7.5	7.8
10	8.0	8.8					11	17	25	10	7.5	7.8
11	8.0	8.5					11	17	24	9.8	7.3	8.0
12	8.0	8.5					11	17	23	9.5	7.3	7.8
13	8.0	8.5					10	17	24	9.2	7.3	7.8
14	8.0	8.5					9.8	17	24	9.0	7.3	7.8
15	8.0	8.5	8.0	9	9	10	10	17	23	9.0	7.3	7.8
16	8.2	8.8					11	19	22	9.5	7.3	7.8
17	8.2	9.0					12	21	21	9.2	7.3	7.8
18	8.2	9.0					12	21	20	8.8	7.8	7.5
19	8.2	9.0					12	22	20	8.5	8.0	7.8
20	8.2	9.0					12	22	19	8.5	7.8	7.8
21	8.2	9.0				10	11	25	18	8.2	7.5	7.8
22	8.5	8.8				10	11	27	17	8.2	7.8	8.0
23	8.5	8.8				10	12	26	17	8.2	7.8	8.0
24	8.5	8.8				9.8	14	27	16	7.8	7.3	8.5
25	8.5	8.8				9.8	15	28	16	7.8	7.3	9.0
26	8.5	8.8				9.8	17	30	15	7.8	7.8	8.8
27	8.8	8.8				10	20	33	14	8.0	8.0	8.5
28	8.8	8.8	9.0			10	22	32	14	7.8	7.8	8.5
29	8.8	8.8			-------	10	23	32	14	7.5	7.5	8.2
30	8.8	8.8			-------	10	22	32	13	7.5	7.5	8.2
31	8.5	-------			-------	10	-------	33	-------	7.8	7.8	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	8.8	7.8	8.18	503
November	9.0	8.5	8.76	521
December	----------	----------	8.32	512
January	----------	----------	9.0	553
February	----------	----------	9.0	500
March	----------	----------	9.66	594
April	23	9.8	13.0	774
May	33	17	22.6	1,390
June	34	13	22.5	1,340
July	12	7.5	9.28	571
August	8.0	7.3	7.58	466
September	9.0	7.5	7.94	472
The year	34	7.3	11.3	8,200

P. A. LATERAL NEAR MILNER, IDAHO

LOCATION.—Staff gage in sec. 22, T. 10 S., R. 21 E., 600 feet below pumping station and 2½ miles northeast of Milner.

RECORDS AVAILABLE.—April 1919 to September 1933.

DISCHARGE.—Maximum during year, 61 second-feet on various days; no flow during winter months.

1919–33: Maximum, 64 second-feet May 11–13, 1920, and July 11–12, 19–29, 1932; no flow on numerous occasions.

REMARKS.—Records good. Discharge June 19 to Sept. 24 estimated from pump records. Flow regulated by operation of pumping plant which lifts water from Snake River for irrigation in North Side Twin Falls tract.

Discharge, in second-feet, 1932–33

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	0	32	60	61	61	61	16	0	60	60	61	61	61
2	0	32	60	61	61	61	17	0	60	60	61	61	61
3	0	33	60	61	61	61	18	0	60	60	61	61	61
4	0	38	60	61	61	61	19	0	60	60	61	61	61
5	0	42	60	61	61	61	20	0	60	60	61	61	61
6	0	43	60	61	61	61	21	0	60	60	61	61	61
7	0	43	60	61	61	61	22	0	60	60	61	61	54
8	0	47	60	61	61	61	23	0	60	60	61	61	43
9	0	47	60	61	61	61	24	0	60	60	61	61	43
10	0	51	60	61	61	61	25	21	60	60	61	61	0
11	0	60	60	61	61	61	26	25	60	61	61	61	0
12	0	60	60	61	61	61	27	32	60	61	61	61	0
13	0	60	60	61	61	61	28	32	60	61	61	61	0
14	0	60	60	61	61	61	29	32	60	61	61	61	0
15	0	60	60	61	61	61	30	32	60	61	61	61	0
							31	-------	60	-------	61	61	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April	32	0	5.80	345
May	60	32	52.8	3,310
June	61	60	60.2	3,580
July	61	61	61.0	3,750
August	61	61	61.0	3,750
September	61	0	47.4	2,820
The year	61	0	24.2	17,600

NOTE.—No flow during months omitted.

MILNER LOW LIFT CANAL NEAR MILNER, IDAHO

LOCATION.—Water-stage recorder in sec. 32, T. 10 S., R. 21 E., 600 feet below head of canal and 1½ miles south of Milner.

RECORDS AVAILABLE.—June 1921 to September 1933.

DISCHARGE.—Maximum during year, 173 second-feet June 29; no flow on numerous days.

1921–33: Maximum, that of 1933; no flow on numerous occasions.

REMARKS.—Records excellent. Flow controlled by operation of pumping plant which lifts water from Snake River above Milner Dam for irrigation of 8,000 acres of land in Milner Low Lift Irrigation District.

Discharge, in second-feet, 1932–33

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	0	124	138	168	172	0	16	0	107	166	143	172	132
2	0	132	152	152	166	149	17	23	100	166	138	170	127
3	0	130	153	169	171	147	18	23	98	168	158	168	125
4	0	124	152	171	171	146	19	24	85	162	171	167	127
5	0	124	152	172	171	144	20	24	80	170	170	166	129
6	0	128	151	172	160	149	21	24	79	170	171	165	121
7	0	119	153	172	172	165	22	24	81	107	171	162	129
8	0	126	166	170	171	159	23	24	80	168	171	163	129
9	0	123	172	171	171	154	24	25	80	168	172	163	54
10	0	122	168	171	170	154	25	53	94	168	169	156	0
11	0	110	170	172	172	153	26	74	100	168	170	153	72
12	0	120	172	171	172	150	27	78	111	168	170	157	124
13	0	120	171	171	171	152	28	80	126	172	170	159	123
14	0	109	166	172	172	136	29	111	125	173	170	160	123
15	0	110	165	172	171	132	30	111	124	166	170	160	123
							31	-------	124	-------	171	0	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April	111	0	23.3	1,390
May	132	79	110	6,760
June	173	107	162	9,640
July	172	138	168	10,300
August	172	0	161	9,900
September	165	0	124	7,380
The year	173	0	62.7	45,400

NOTE.—No flow October to March.

GOODING CANAL AT MILNER, IDAHO

LOCATION.—Water-stage recorder in SW¼ sec. 20, T. 10 S., R. 21 E., 1 mile below head gates and 1 mile northwest of Milner until June 23, 1933; thereafter 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 below head gates.

RECORDS AVAILABLE.—May 1930 to September 1933.

DISCHARGE.—Maximum daily discharge during year, 2,010 second-feet July 28–29; no flow on many days.

1930–33: Maximum, 2,170 second-feet July 27, 1932; no flow on many days.

REMARKS.—Records good. Gooding Canal diverts water from Snake River for Milner-Gooding project of the United States Bureau of Reclamation and in part for the North Side Canal Co. project. The latter project also receives water through the North Side Twin Falls Canal and P. A. Lateral. Records after June 23, 1933, are computed by combining the discharges of the Milner-Gooding diversion and North Side Canal Co. diversions below their division point and adding thereto about 20 second-feet for loss from head gates to division point.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	42	715	0	925	1,350	1,670	1,950	1,710
2	58	698	0	917	1,360	1,430	1,950	1,700
3	84	708	0	909	1,370	1,570	1,930	1,660
4	84	725	0	952	1,400	1,570	1,910	1,660
5	74	725	0	995	1,400	1,910	1,900	1,670
6	47	720	0	1,040	1,400	1,930	1,910	1,680
7	46	760	0	1,170	1,400	1,830	1,900	1,680
8	41	762	0	1,170	1,500	1,900	1,890	1,680
9	42	650	0	1,150	1,500	1,900	1,890	1,690
10	17	598	0	1,130	1,500	1,900	1,890	1,680
11	0	596	250	1,140	1,490	1,900	1,880	1,680
12	0	280	594	1,160	1,490	1,900	1,880	1,680
13	0	0	598	1,160	1,480	1,830	1,890	1,680
14	0	0	596	1,160	1,480	1,830	1,850	1,670
15	0	0	596	1,160	1,480	1,900	1,840	1,660
16	0	0	532	1,150	1,480	1,910	1,840	1,680
17	0	0	434	1,150	1,480	1,910	1,830	1,680
18	0	0	240	1,150	1,480	1,920	1,820	1,660
19	0	0	204	1,200	1,540	1,930	1,800	1,660
20	0	0	204	1,210	1,580	1,900	1,800	1,550
21	0	0	204	1,210	1,620	1,900	1,790	1,540
22	0	0	204	1,200	1,620	1,970	1,780	1,530
23	0	0	204	1,210	1,620	2,000	1,750	1,550
24	0	0	204	1,290	1,640	2,000	1,740	1,410
25	0	0	204	1,300	1,660	1,990	1,730	1,390
26	0	0	204	1,310	1,730	2,000	1,740	1,390
27	0	0	240	1,330	1,750	1,990	1,730	1,390
28	254	0	390	1,540	1,750	2,000	1,720	1,370
29	460	0	615	1,520	1,750	2,000	1,710	820
30	650	0	870	1,390	1,750	1,930	1,690	365
31	730	-------	-------	1,340	-------	1,900	1,700	-------

Month	Total in canal			Run-off in acre-feet		
	Maximum	Minimum	Mean	Milner-Gooding project	North Side Canal Co. project	Total
October	730	0	84.8	1,060	4,150	5,210
November	760	0	265	3,700	12,100	15,800
April	870	0	253	2,140	12,900	15,040
May	1,540	909	1,180	43,300	29,400	72,700
June	1,750	1,350	1,540	58,400	33,000	91,400
July	2,010	1,490	1,890	70,100	45,800	115,900
August	1,950	1,690	1,830	58,200	54,200	112,400
September	1,710	365	1,540	44,700	46,800	91,500
The year	2,010	0	718	282,000	238,000	520,000

NOTE.—No flow December to March.

NORTH SIDE TWIN FALLS CANAL AT MILNER, IDAHO

LOCATION.—Water-stage recorder in sec. 20, T. 10 S., R. 21 E., half a mile north of Milner and three-quarters of a mile below the head gates at Milner Dam.

RECORDS AVAILABLE.—May 1909 to September 1933.

DISCHARGE.—Maximum during year, 2,960 second-feet June 20, 25–27 (gage height, 8.43 feet); no flow on various days.

1909–33: Maximum, 3,200 second-feet July 5–7, 29–31, 1921, May 15, 1928, June 2, July 23, 1929; no flow numerous times when gates were closed.

REMARKS.—Records excellent. Discharge estimated because of ice Dec. 10–11, Jan. 17–18, Feb. 6–14. Flow controlled by operation of head gates. Water diverted by this canal, by the P. A. Lateral, and part of the diversion by the Gooding Canal, all at Milner, is used for irrigation of 170,000 acres of land under the North Side Canal Co. system.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	891	0	697	460	478	296	588	2,000	2,530	592	2,850	2,510
2	866	0	701	460	478	294	588	1,900	2,660	0	2,850	2,490
3	873	0	707	460	478	306	607	1,860	2,740	0	2,820	2,480
4	895	0	701	460	478	303	670	1,940	2,780	1,640	2,830	2,450
5	898	0	677	460	463	306	822	2,030	2,790	2,740	2,800	2,450
6	895	0	687	460	463	303	830	2,050	2,780	2,740	2,850	2,430
7	895	0	697	460	463	313	837	2,180	2,760	2,780	2,840	2,410
8	880	0	690	460	463	395	891	2,190	2,790	2,790	2,830	2,410
9	855	500	684	460	463	472	950	2,190	2,800	2,800	2,810	2,390
10	855	898	684	460	463	469	939	2,150	2,810	2,800	2,770	2,370
11	869	880	684	466	463	421	681	2,180	2,820	2,800	2,750	2,340
12	862	848	684	466	463	418	0	2,230	2,830	2,780	2,750	2,290
13	862	822	687	463	463	418	0	2,240	2,810	2,760	2,760	2,250
14	844	784	684	463	463	424	0	2,230	2,840	2,790	2,780	2,210
15	858	766	660	463	445	421	0	2,210	2,850	2,830	2,780	2,180
16	862	724	598	466	445	406	421	2,210	2,860	2,800	2,780	2,200
17	866	694	578	465	358	383	784	2,200	2,900	2,780	2,760	1,960
18	873	714	550	464	257	386	869	2,210	2,910	2,810	2,760	1,560
19	876	714	481	463	185	381	873	2,240	2,950	2,780	2,790	1,610
20	858	707	451	460	282	381	826	2,260	2,960	2,800	2,730	1,530
21	1,020	707	457	463	445	369	819	2,230	2,930	2,830	2,740	1,470
22	1,080	701	454	466	472	392	862	2,150	2,920	2,800	2,760	1,390
23	1,360	718	448	469	404	412	1,040	2,330	2,950	2,840	2,740	1,390
24	1,610	721	460	475	395	497	1,180	2,430	2,940	2,830	2,700	1,370
25	882	707	457	472	356	521	1,320	2,370	2,960	2,810	2,670	1,260
26	0	704	454	469	350	521	1,530	2,360	2,960	2,810	2,670	1,220
27	0	707	454	472	353	550	1,590	2,370	2,960	2,820	2,630	1,200
28	0	707	457	478	331	556	1,750	2,500	2,890	2,830	2,620	1,150
29	0	707	457	478	------	553	1,840	2,490	2,920	2,840	2,590	1,100
30	0	697	460	475	------	569	1,920	2,490	2,880	2,840	2,500	1,100
31	0	------	460	478	------	556	------	2,500	------	2,850	2,520	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,610	0	754	46,400
November	898	0	538	32,000
December	707	448	581	35,700
January	478	460	466	28,700
February	478	185	415	23,000
March	569	294	419	25,800
April	1,920	0	868	51,600
May	2,500	1,860	2,220	136,000
June	2,960	2,530	2,850	170,000
July	2,850	0	2,510	154,000
August	2,850	2,500	2,740	168,000
September	2,510	1,100	1,910	114,000
The year	2,960	0	1,360	985,000

SOUTH SIDE TWIN FALLS CANAL AT MILNER, IDAHO

LOCATION.—Water-stage recorder in sec. 29, T. 10 S., R. 21 E., 700 feet below head gates at Milner.

RECORDS AVAILABLE.—May 1909 to September 1933.

DISCHARGE.—Maximum during year, 3,720 second-feet Aug. 19 (gage height, 10.43 feet); minimum, 115 second-feet Apr. 18 (gage height, 1.96 feet).

1909–33: Maximum, 4,600 second-feet Aug. 12, 1918; no flow Sept. 20, 1920.

REMARKS.—Records excellent except those for periods of ice effect, Dec. 9 to Feb. 19, which are good. Flow controlled by operation of head gates. South Side Twin Falls Canal diverts water from Snake River at Milner Dam for the irrigation of 202,000 acres of land in Twin Falls County.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,850	772	749			661	615	3,300	3,310	3,330	3,630	3,570
2	1,820	815	756			636	658	3,200	3,390	3,370	3,630	3,570
3	1,770	838	762			633	765	3,100	3,400	3,420	3,600	3,580
4	1,780	782	749			615	879	3,240	3,370	3,430	3,600	3,570
5	1,770	695	740			571	938	3,240	3,340	3,380	3,570	3,550
6	1,750	658	746			568	952	3,160	3,370	3,370	3,620	3,450
7	1,750	655	759			568	1,080	3,370	3,350	3,420	3,640	3,440
8	1,750	655	740			548	1,130	3,400	3,350	3,500	3,660	3,500
9	1,730	670				548	1,170	3,330	3,320	3,540	3,650	3,430
10	1,710	679			740	545	1,150	3,210	3,330	3,550	3,600	3,350
11	1,600	667				523	1,160	3,250	3,350	3,540	3,630	3,270
12	1,260	658				487	1,160	3,320	3,350	3,520	3,680	3,100
13	1,030	667				526	1,180	3,300	3,340	3,520	3,680	2,950
14	1,200	667				528	1,180	3,230	3,350	3,570	3,660	2,790
15	1,210	655				520	1,170	3,190	3,430	3,610	3,660	2,760
16	1,180	714	736	736		523	1,170	3,170	3,440	3,550	3,650	2,790
17	1,180	752				540	506	3,140	3,440	3,530	3,610	2,730
18	1,190	759				528	115	3,060	3,440	3,610	3,630	2,620
19	1,170	752				517	504	3,100	3,440	3,570	3,720	2,530
20	1,130	746			740	514	1,530	3,080	3,420	3,580	3,690	2,230
21	1,120	749			724	523	1,770	3,060	3,390	3,610	3,710	2,070
22	1,120	749			730	537	1,280	2,980	3,370	3,590	3,690	2,060
23	346	749			704	534	1,610	3,060	3,400	3,630	3,570	2,080
24	128	752	738		676	534	2,090	3,230	3,410	3,600	3,520	2,090
25	190	749			670	540	2,450	3,160	3,430	3,600	3,620	2,100
26	476	740			661	540	2,600	3,140	3,430	3,600	3,630	2,030
27	910	746			673	531	2,790	3,150	3,470	3,600	3,610	1,900
28	775	746	738		679	531	3,110	3,400	3,390	3,620	3,610	1,730
29	670	746			------	534	3,210	3,400	3,380	3,620	3,630	1,570
30	652	746			------	562	3,120	3,310	3,340	3,630	3,610	1,520
31	679	------			------	597	------	3,270	------	3,630	3,630	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,850	128	1,190	73,200
November	838	655	724	43,100
December	----------	----------	740	45,500
January	----------	----------	736	45,300
February	----------	661	726	40,300
March	661	487	550	33,800
April	3,210	115	1,430	85,100
May	3,400	2,980	3,210	197,000
June	3,470	3,310	3,380	201,000
July	3,630	3,330	3,540	218,000
August	3,720	3,520	3,630	223,000
September	3,580	1,520	2,730	162,000
The year	3,720	115	1,890	1,370,000

ROCK CREEK NEAR TWIN FALLS, IDAHO

LOCATION.—Water-stage recorder on south line of sec. 36, T. 9 S., R. 16 E., at highway bridge 3 miles above mouth and 3½ miles northwest of Twin Falls.

RECORDS AVAILABLE.—March 1922 to September 1933.

DISCHARGE.—Maximum during year, 721 second-feet Feb. 21 (gage height, 3.22 feet); minimum, 97 second-feet Apr. 21 (gage height, 0.52 foot).

1922–33: Maximum, 984 second-feet Sept. 21, 1927 (gage height, 4.5 feet); minimum, 95 second-feet Apr. 16, 1931; Apr. 10, 11, 1932.

REMARKS.—Records good except those for discharges above 350 second-feet, which are fair; and those for Feb. 22, 23, which are poor. Discharge estimated Feb. 7–13, 22, 23, July 3–7; interpolated Oct. 24, Nov. 2, 25, Jan. 1, 24–26, Feb. 3, Sept. 26, 27. Normal summer flow entirely diverted for irrigation several miles upstream. Waste water from South Side Twin Falls Canal, which crosses Rock Creek 10 miles above, causes appreciable changes in stage at times. Gage-height observations furnished by Murtaugh Irrigation District.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	266	206	281	346	330	358	123	158	224	204	249	276
2	261	208	276	335	312	338	121	236	226	206	222	278
3	264	209	273	370	324	293	120	285	220		211	281
4	257	209	276	358	335	278	120	222	222		211	278
5	257	206	269	370	345	285	120	166	231	200	215	278
6	261	206	162	345	370	278	120	211	220		215	278
7	264	198	161	370		278	121	245	213		222	273
8	288	194	175	358		273	124	264	215	202	224	278
9	345	192	259	370		242	124	310	217	206	222	283
10	358	186	266	345	360	211	130	330	209	200	220	283
11	345	186	247	330		196	129	332	206	194	217	295
12	342	188	224	345		169	124	338	202	194	217	298
13	332	192	224	328		144	121	328	202	194	217	295
14	259	222	226	322	435	145	120	340	200	184	215	293
15	249	285	229	332	435	129	115	300	194	180	213	290
16	249	295	229	312	396	138	115	278	194	192	213	295
17	252	293	264	330	435	153	126	266	196	188	217	295
18	257	290	345	335	651	142	121	229	196	188	220	273
19	249	290	396	370	651	146	113	196	198	211	220	283
20	245	288	422	383	651	144	106	198	202	188	222	281
21	261	285	409	370	693	142	136	202	211	192	222	273
22	288	281	409	358	500	138	261	202	213	190	222	276
23	283	281	396	345		130	138	206	217	194	226	281
24	244	281	370	348	345	125	164	213	217	194	231	290
25	206	282	288	352	342	126	126	206	213	190	233	302
26	206	283	345	355	345	125	128	213	209	190	242	299
27	194	283	358	358	358	124	162	229	211	186	252	296
28	200	283	358	358	358	125	138	245	211	186	254	293
29	204	283	370	332	------	124	148	252	204	186	264	290
30	204	283	358	340	------	124	154	236	202	196	266	288
------	204	------	358	340	------	125	------	233	------	200	269	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	358	194	261	16,000
November	295	186	246	14,600
December	422	161	298	18,300
January	383	312	349	21,500
February	693	312	415	23,000
March	358	124	185	11,400
April	261	106	132	7,860
May	340	158	247	15,200
June	231	194	210	12,500
July	211	180	195	12,000
August	269	211	228	14,000
September	302	273	286	17,000
The year	693	106	253	183,000

SALMON FALLS CREEK BASIN

SALMON FALLS CREEK NEAR SAN JACINTO, NEV.

LOCATION.—Water-stage recorder in sec. 23, T. 47 N., R. 64 E., in canyon 200 yards below county highway bridge, 250 yards below mouth of Shoshone Creek, and 5 miles north of San Jacinto.

RECORDS AVAILABLE—September 1909 to September 1916; October 1918 to September 1933.

DISCHARGE—Maximum during year, 477 second-feet June 4 (gage height, 4.87 feet); minimum, 16 second-feet Aug. 24 and 25 (minimum gage height, 2.32 feet Aug. 25).

1909–16, 1919–33: Maximum, 1,280 second-feet May 22, 1912 (gage height, 7.5 feet); minimum, 9.8 second-feet Aug. 4, 1931 (gage height, 2.24 feet).

REMARKS.—Records good except those estimated, Dec. 9–15, Mar. 13–18, Apr. 25 to May 2, which are fair. Numerous diversions for irrigation above station. Salmon Dam of Salmon River Canal Co., Ltd., 15 miles below station, forms a reservoir having a capacity of about 180,000 acre-feet. Gage-height record furnished by Salmon River Canal Co., Ltd., and one measurement by Federal court commissioner, C. E. Tappan.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	52	59	53	58	64	83	350	412	100	22	23
2	45	52	59	54	59	62	85		438	98	21	23
3	46	52	60	54	54	65	89	347	451	89	20	23
4	45	52	60	55	51	66	96	337	477	76	23	22
5	44	51	56	54	49	67	102	327	464	72	23	22
6	44	52	48	55	50	67	108	312	464	69	23	22
7	48	53	38	51	45	69	145	307	438	69	23	22
8	49	52	45	53	50	75	159	286	412	78	23	22
9	49	53		51	48	76	154	278	382	74	23	21
10	49	53		53	48	83	141	259	357	76	22	18
11	48	52		50	50	85	131	248	334	70	21	18
12	48	52	40	53	51	82	131	239	330	67	21	18
13	48	54		54	55		126	241	317	67	20	18
14	48	56		55	55		119	239	314	65	20	18
15	48	58		56	55		118	241	310	61	20	18
16	48	60	40	50	58	80	136	255	330	59	19	18
17	49	61	41	52	58		170	274	271	54	19	17
18	49	61	42	50	58		190	288	250	48	21	17
19	50	61	44	52	58	75	192	290	237	46	27	17
20	50	61	46	54	58	75	178	295	219	33	27	17
21	50	62	47	53	58	75	163	300	192	25	23	17
22	50	61	45	58	58	76	157	330	165	23	18	18
23	50	60	45	56	60	75	165	352	141	23	17	18
24	51	59	47	50	61	74	184	362	119	24	16	18
25	51	58	49	51	61	74		360	108	25	16	18
26	52	59	51	51	61	72		357	106	21	17	21
27	52	59	52	53	61	75	250	364	113	21	18	31
28	52	59	52	58	62	78		377	113	20	20	43
29	52	60	53	56	------	82		387	111	20	20	43
30	52	60	54	59	------	82		387	105	20	20	42
31	52	------	53	58	------	82	------	387	------	20	23	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	52	44	49	3,010
November	62	51	56.5	3,360
December	60	------	47.3	2,910
January	59	50	53.6	3,300
February	62	45	55.4	3,080
March	85	62	75.4	4,640
April	------	83	161	9,580
May	387	239	314	19,300
June	477	105	282	16,800
July	100	20	52	3,200
August	27	16	20.8	1,280
September	43	17	22.1	1,320
The year	477	16	99	71,800

SALMON RIVER CANAL CO. RESERVOIR NEAR ROGERSON, IDAHO

LOCATION.—Staff gage in sec. 17, T. 14 S., R. 15 E., at dam on Salmon Falls Creek, 10 miles west of Rogerson.

RECORDS AVAILABLE.—January 1922 to September 1933. Regulation began May 1910.

EXTREMES.—Maximum contents, 37,250 acre-feet May 29, 30 (gage height, 24.0 feet); minimum, 750 acre-feet Sept. 23–30 (gage height, 0.6 foot).

1922–33: Maximum contents, 123,700 acre-feet May 30, 31, 1922 (gage height, 61.1 feet); minimum contents and gage height, Sept. 23–30, 1933.

REMARKS.—Contents interpolated Jan. 2, 3. Reservoir has a capacity of 182,650 acre-feet between gage height 0 and 80 feet (4,990 and 5,070 feet sea level elevations). Water is used for irrigation of lands in Salmon River Canal Co. project. Gage-height record and table of storage capacity furnished by Salmon River Canal Co.

Contents, in acre-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,728	3,985	5,335	7,068	9,460	11,340	14,920	22,350	36,880	21,100	5,470	2,250
2	4,795	4,052	5,402	7,140	9,532	11,490	14,780	23,200	36,510	21,260	4,920	2,250
3	4,795	4,120	5,470	7,212	9,605	11,560	14,620	23,880	36,140	21,420	4,525	2,250
4	4,862	4,188	5,538	7,285	9,605	11,710	14,700	24,560	35,400	21,500	4,255	2,250
5	4,930	4,188	5,605	7,358	9,605	11,850	14,700	25,070	35,030	21,670	3,850	2,250
6	4,930	4,255	5,672	7,430	9,678	12,000	14,700	25,750	34,660	21,670	3,580	2,250
7	4,930	4,390	5,740	7,502	9,678	12,070	14,850	26,260	34,290	21,670	3,310	2,188
8	4,728	4,458	5,808	7,575	9,750	12,220	15,150	26,770	33,740	21,100	3,040	2,000
9	4,458	4,525	5,875	7,720	9,822	12,350	15,300	27,280	33,180	20,380	2,905	1,875
10	4,120	4,592	5,942	7,792	9,895	12,420	15,600	27,620	32,810	19,180	2,770	1,750
11	3,850	4,660	5,942	7,865	9,968	12,570	15,930	28,130	32,260	18,300	2,770	1,625
12	3,850	4,728	6,010	7,938	10,040	12,640	16,120	28,640	31,700	17,400	2,770	1,562
13	3,715	4,795	6,010	8,010	10,180	12,780	16,280	29,060	31,190	16,200	2,770	1,500
14	3,445	4,458	6,010	8,082	10,260	12,930	16,500	29,490	30,680	15,150	2,770	1,375
15	3,310	4,120	6,078	8,155	10,330	13,080	16,720	29,920	30,170	13,950	2,770	1,250
16	3,175	3,985	6,078	8,228	10,400	13,220	16,880	30,340	29,800	12,930	2,770	1,125
17	3,040	4,120	6,145	8,372	10,480	13,290	17,100	30,760	29,580	11,920	2,635	1,062
18	3,175	4,188	6,145	8,445	10,550	13,360	17,400	31,100	29,320	11,200	2,635	1,000
19	3,310	4,322	6,212	8,518	10,620	13,510	17,620	31,530	29,150	11,200	2,635	938
20	3,310	4,390	6,280	8,590	10,690	13,660	18,000	32,070	28,900	11,200	2,568	875
21	3,310	4,458	6,280	8,662	10,760	13,800	18,300	32,530	28,640	11,200	2,568	875
22	3,378	4,525	6,280	8,735	10,840	13,880	18,620	33,000	28,040	11,200	2,500	812
23	3,378	4,660	6,348	8,808	10,910	13,950	18,860	33,550	27,360	11,200	2,500	750
24	3,445	4,728	6,415	8,808	10,980	14,100	19,100	34,200	26,600	10,690	2,500	750
25	3,512	4,795	6,550	8,880	11,060	14,180	19,420	34,840	25,840	10,040	2,438	750
26	3,580	4,930	6,695	8,880	11,130	14,250	19,820	35,400	24,640	9,460	2,438	750
27	3,648	4,998	6,768	9,025	11,200	14,400	20,220	36,140	23,540	8,735	2,438	750
28	3,715	5,065	6,840	9,098	11,270	14,550	20,860	36,700	22,520	8,010	2,375	750
29	3,782	5,200	6,918	9,170	------	14,620	21,340	37,250	21,500	7,430	2,375	750
30	3,850	5,268	6,995	9,315	------	14,700	21,840	37,250	20,940	6,695	2,312	750
31	3,918	------	6,995	9,388	------	14,780	------	37,060	------	6,010	2,312	------

BIG WOOD RIVER BASIN

BIG WOOD RIVER AT HAILEY, IDAHO

LOCATION.—Staff gage 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 1933.

DISCHARGE—Maximum during year, 2,060 second-feet June 15–17 (gage, height, 4.65 feet); minimum, 2 second-feet Sept. 14–30; minimum gage height, −0.20 foot Sept. 29.

1915–33: Maximum, 3,560 second-feet June 12, 1921 (gage height, 7.66 feet, present datum); practically no flow Sept. 15–23, Nov. 20, 22, 23, 1931.

REMARKS.—Records good above 20 second-feet, fair below. Discharge estimated Feb. 1, 2, 4–19, interpolated Nov. 3. Discharge Feb. 3, result of current-meter measurement. Water diverted around station by Hailey power plant and returned to river through Big Wood Slough (p. 89). Total flow of Big Wood River (p. 90) represents amount of water passing both stations. Diversions for irrigation above station. One daily gage reading Apr. 28 to Sept. 13 and four discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	33	17	10	15	9	16	576	1,520	485	62	23
2	27	35	18	10	15	10	17	503	1,520	508	63	23
3	31	35	18	10	15	10	18	433	1,780	465	62	23
4	31	35	18	14		9	18	411	1,690	465	63	23
5	27	37	15	10		10	21	389	1,520	445	55	23
6	27	37	46	10		9	48	411	1,360	405	51	22
7	27	29	9	9		10	42	433	1,520	405	44	22
8	29	33	11	9		10	41	368	1,360	385	26	23
9	27	37	39	9		10	40	328	1,520	365	29	22
10	27	29	70	10		11	35	203	1,520	346	28	22
11	27	29	68	10	15	11	35	215	1,690	346	28	22
12	25	11	68	12		11	39	328	1,780	326	27	22
13	25	11	33	10		11	34	411	1,870	326	24	16
14	25	11	40	10		11	37	433	1,960	308	21	2
15	25	15	45	9		11	42	503	1,960	308	20	2
16	23	17	42	8		11	55	527	1,960	289	20	2
17	20	18	34	10		12	92	576	1,960	272	20	2
18	18	18	22	10		11	93	576	1,600	255	23	2
19	18	17	22	11		11	97	576	1,350	240	26	2
20	18	17	13	10	14	11	131	576	1,190	224	23	2
21	18	18	18	10	16	12	140	626	1,050	224	22	2
22	17	17	11	10	9	11	140	729	1,040	210	22	2
23	18	17	12	10	9	13	180	729	970	196	22	2
24	15	17	13	10	9	11	203	729	905	149	22	2
25	12	17	12	8	10	13	242	836	845	113	22	2
26	35	18	12	13	10	14	290	948	785	97	22	2
27	35	18	10	14	9	12	328	1,070	600	64	22	2
28	37	18	12	15	10	14	626	1,070	552	60	22	2
29	68	18	11	14	------	15	677	1,070	530	63	23	2
30	37	18	11	9	------	15	576	1,260	575	62	22	2
31	35	------	12	16	------	15	------	1,440	------	62	23	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	68	12	26.9	1,650
November	37	11	22.7	1,350
December	70	9	25.2	1,550
January	16	8	10.6	652
February	----------	9	13.6	755
March	15	9	11.4	701
April	677	16	145	8,630
May	1,440	203	622	38,200
June	1,960	530	1,350	80,300
July	508	60	273	16,800
August	63	20	30.9	1,900
September	23	2	10.7	637
The year	1,960	2	212	153,000

Combined discharge, in second-feet, of Big Wood River and Big Wood Slough at Hailey, Idaho, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	177	171	146	132	a133	127	119	677	1,580	526	171	132
2	161	159	156	128	a124	141	124	610	1,580	546	162	128
3	165	159	152	128	116	141	132	529	1,850	504	163	128
4	169	138	138	150	a115	123	134	505	1,740	503	164	124
5	161	157	144	141	a115	132	164	485	1,550	480	152	120
6	161	175	153	128	a115	131	155	501	1,380	438	145	123
7	180	158	125	127	a115	136	158	530	1,550	437	153	127
8	182	171	99	135	a115	124	137	458	1,390	416	140	126
9	191	175	119	127	a115	124	147	427	1,560	390	151	129
10	175	167	150	119	a115	142	138	384	1,560	375	146	125
11	208	167	127	119	a115	142	138	385	1,740	375	139	121
12	178	175	124	143	a115	137	142	356	1,830	354	132	123
13	178	154	116	128	a115	142	137	413	1,900	356	133	117
14	173	154	130	128	a115	142	140	435	2,000	342	124	122
15	173	158	154	123	a125	120	149	505	2,000	339	125	126
16	171	160	151	117	a125	108	179	529	2,000	318	129	126
17	158	166	148	119	a125	113	203	578	2,000	291	129	124
18	161	171	136	124	a125	91	196	578	1,630	284	141	113
19	166	151	136	125	a125	101	204	578	1,380	268	155	113
20	171	160	127	124	a124	101	228	578	1,220	249	141	113
21	171	161	132	124	a126	106	237	628	1,080	248	140	118
22	170	137	129	124	a129	84	237	742	1,080	234	136	124
23	171	137	130	124	a129	107	289	752	1,010	221	133	128
24	139	133	131	124	127	94	321	754	945	201	127	124
25	141	146	130	122	132	103	339	864	892	186	127	120
26	164	147	134	131	146	108	419	978	825	193	129	126
27	164	156	128	132	135	104	457	1,100	639	171	136	126
28	161	156	148	133	146	110	744	1,100	592	171	129	118
29	184	156	142	123	------	118	801	1,110	566	157	126	118
30	157	156	147	140	------	118	672	1,300	613	165	123	118
31	155	------	134	125	------	122	------	1,500	------	167	132	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	208	139	169	10,400
November	175	133	158	9,400
December	136	99	136	8,360
January	150	117	128	7,870
February	146	115	123	6,830
March	142	84	119	7,320
April	801	119	255	15,200
May	1,500	356	673	41,400
June	2,000	566	1,390	82,700
July	546	157	320	19,700
August	171	123	140	8,610
September	132	113	123	7,320
The year	2,000	84	311	225,000

a Estimated.

BIG WOOD RIVER NEAR BELLEVUE, IDAHO

LOCATION.—Water-stage recorder in sec. 20, T. 1 S., R. 18 E., 1¾ miles above flow line of Magic Reservoir, 3 miles above Camas Creek, and 10 miles southwest of Bellevue.

DRAINAGE AREA.—823 square miles.

RECORDS AVAILABLE.—July 1911 to September 1933.

DISCHARGE.—Maximum during year, 1,510 second-feet June 17 (gage height, 3.29 feet); minimum recorded, 42 second-feet Apr. 10 (gage height, 1.26 feet).

1911–33: Maximum, 3,660 second-feet June 16, 1921 (gage height, 6.07 feet); minimum, 7 second-feet Apr. 14, 1932 (gage height, 1.10 feet).

REMARKS.—Records good except those estimated, Apr. 11–18, which are fair. Discharge interpolated Sept. 30. No records during winter. Numerous diversions for irrigation above station. Gage-height record and four discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1932–33

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1			418	800	200	77	58
2			412	810	165	77	56
3			370	931	131	70	53
4			316	986	106	68	51
5			316	865	106	68	51
6			301	736	106	66	51
7			301	747	106	62	47
8			311	789	113	56	47
9			282	821	110	49	47
10		44	277	942	103	49	45
11			259	975	98	47	47
12			254	1,100	88	49	51
13			237	1,180	86	49	56
14			220	1,240	90	51	51
15		55	245	1,270	98	43	53
16			268	1,280	134	41	51
17			282	1,300	113	45	51
18			291	1,030	98	49	51
19		65	282	832	88	56	51
20	63	60	263	726	75	51	51
21		55	263	593	66	51	49
22		52	306	534	68	53	51
23		52	342	450	66	56	56
24		49	359	390	64	56	62
25		46	388	403	68	58	64
26		108	450	383	68	62	68
27		197	535	353	73	64	64
28		316	583	329	77	60	62
29		470	591	296	75	56	58
30		470	615	255	73	53	57
31			736		77	58	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April 10–30	470	44	115	4,790
May	736	220	357	22,000
June	1,300	255	778	46,300
July	200	64	96.4	5,930
August	77	41	56.5	3,470
September	68	45	53.7	3,200
The period				85,700

MAGIC RESERVOIR NEAR RICHFIELD, IDAHO

LOCATION.—Tape gage in NE¼SE¼ sec. 18, T. 2 S., R. 18 E., 18 miles northwest of Richfield. Observations are referred to an assumed datum about 137 feet lower than sea level.

DRAINAGE AREA.—1,500 square miles.

RECORDS AVAILABLE.—February 1909 to September 1933. Prior to Apr. 4, 1909, gage-height record only is available. Practically no storage prior to July 14, 1909.

EXTREMES.—Maximum contents during year, 191,890 acre-feet June 4 (gage height, 4,935.10 feet); minimum, 90,630 acre-feet Sept. 30 (gage height, 4,901.28 feet).

1909–33: Maximum contents, 192,060 acre-feet May 18, 1927 (gage height, 4,935.14 feet); no storage for several days in 1909, 1919, 1920, 1924, and 1928.

REMARKS.—Water stored in this reservoir for irrigation on about 69,000 acres of land under Carey Act project of Big Wood Canal Co. Available capacity of reservoir is about 191,000 acre-feet between gage heights 4,821.5 and 4,935.0 feet. Gage-height record furnished by water master for Big Wood and Little Wood Rivers.

Contents, in acre-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	122,610	125,100	128,290	130,110	132,920	134,880	136,650	180,090	191,730	18[illegible]860	142,620	111,350
2	122,750	125,240	128,430	130,200	133,030	134,930	136,830	182,620	191,730	18[illegible]030	141,250	110,790
3	122,860	125,320	128,540	130,310	133,120	135,020	136,980	184,830	191,730	179,940	139,800	110,200
4	122,910	125,430	128,600	130,420	133,200	135,110	137,180	186,440	191,890	178,750	138,310	109,480
5	123,020	125,540	128,300	130,510	133,290	135,220	137,420	187,990	191,810	177,740	137,120	108,870
6	123,100	125,630	128,010	130,650	133,370	135,280	137,720	189,160	191,660	176,630	135,660	108,160
7	123,160	125,710	128,120	130,760	133,430	135,340	138,010	189,940	191,110	175,450	134,440	107,270
8	123,240	125,880	123,210	130,900	133,490	135,430	138,250	190,910	190,720	174,240	133,340	106,520
9	123,320	126,020	128,290	130,990	133,570	135,480	138,460	191,300	190,560	173,150	131,920	105,820
10	123,380	125,850	128,400	131,070	133,660	135,540	138,610	191,540	190,600	171,880	130,820	105,020
11	123,460	125,740	128,490	131,160	133,720	135,600	138,990	191,620	190,720	170,730	129,550	104,220
12	123,510	125,380	128,570	131,240	133,770	135,660	139,440	191,540	191,300	169,940	128,320	103,480
13	123,570	124,940	128,630	131,330	133,830	135,720	140,040	191,580	191,580	168,660	127,150	102,790
14	123,620	125,100	128,680	131,440	133,920	135,780	140,560	191,580	191,660	167,420	126,180	102,050
15	123,660	125,270	128,710	131,530	133,980	135,830	141,310	191,580	191,660	166,010	125,080	101,340
16	123,700	125,460	128,770	131,580	134,040	135,890	142,470	191,580	191,660	164,780	124,060	100,560
17	123,730	125,660	128,820	131,670	134,120	135,950	144,070	191,580	191,620	163,400	123,050	99,810
18	123,810	126,020	128,880	131,730	134,180	136,040	146,180	191,620	191,580	162,080	122,070	99,080
19	123,900	126,320	128,940	131,810	134,240	136,100	148,010	191,660	191,420	160,820	121,120	98,120
20	123,980	126,650	128,990	131,900	134,320	136,150	149,730	191,660	190,720	159,460	120,040	97,360
21	124,090	126,930	129,190	131,980	134,410	136,180	151,830	191,620	190,250	157,940	118,970	96,570
22	124,170	127,180	129,300	132,070	134,500	136,180	154,220	191,620	189,780	156,600	118,040	95,800
23	124,250	127,320	129,440	132,120	134,590	136,240	156,440	191,620	189,160	155,370	117,370	95,090
24	124,360	127,370	129,520	132,210	134,620	136,270	158,980	191,580	188,490	154,120	116,520	94,380
25	124,440	127,460	129,580	132,270	134,560	136,300	164,090	191,540	187,520	152,640	115,780	93,730
26	124,530	127,650	129,690	132,350	134,670	136,330	166,890	191,540	186,600	151,470	115,130	93,050
27	124,580	127,760	129,780	132,440	134,730	136,360	170,270	191,580	185,670	149,890	114,420	92,330
28	124,690	127,930	129,860	132,490	134,820	136,390	172,670	191,580	184,940	148,140	113,740	91,600
29	124,800	128,070	129,920	132,580	-------	136,420	174,870	191,620	183,950	146,720	113,170	91,020
30	124,910	128,210	129,970	132,690	-------	136,500	177,480	191,660	183,000	145,460	112,600	90,630
31	124,990	-------	130,060	132,830	-------	136,560	-------	191,660	-------	144,070	112,000	-------

BIG WOOD RIVER BELOW MAGIC DAM, NEAR RICHFIELD, IDAHO

LOCATION.—Water-stage recorder in sec. 18, T. 2 S., R. 18 E., half a mile below Magic Dam and 18 miles northwest of Richfield.

RECORDS AVAILABLE.—April 1911 to September 1933.

DISCHARGE.—Maximum during year, 1,380 second-feet June 15 (gage height, 5.09 feet); minimum, 21 second-feet Nov. 13 (gage height, 1.85 feet).

1911–33: Maximum, 5,070 second-feet May 18, 1911 (gage height, 9.2 feet); no flow reported Feb. 3, 1915.

REMARKS.—Records good. Numerous ranch diversions in upper drainage area. Flow completely regulated by gates at Magic Dam. Gage-height record and four discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	22	22				26	226	1,000	72[illegible]	768	358
2	22	22	22				[b] 26	229	1,000	712	746	358
3	22	23	22		[a] 24	[a] 25	[b] 26	233	1,030	696	724	358
4	22	23	[a] 176				[b] 26	236	1,230	696	696	363
5	22	23	216	[a] 23			[b] 25	233	1,230	696	690	414
6	22	23	[a] 88				[b] 25	251	1,090	696	690	445
7	22	23	23				[b] 25	368	1,090	70[illegible]	673	440
8	22	23	23				25	466	1,030	70[illegible]	662	429
9	22	[a] 150	23				[b] 25	482	1,000	707	651	429
10	22	[a] 336	23				[b] 25	590	974	707	624	429
11	22	[a] 427	23				[b] 26	701	945	53[illegible]	596	424
12	22	[a] 363	23				[b] 26	602	1,030	696	596	419
13	22	[a] 104					[b] 27	580	1,180	70[illegible]	585	424
14	22	[b] 22					[b] 27	568	1,260	707	574	424
15	[b] 22	22					27	585	1,320	718	574	429
16	[b] 22	22					[b] 27	624	1,290	72[illegible]	563	435
17	22	22					[b] 27	646	1,230	72[illegible]	568	435
18	22	22				[a] 26	[b] 27	679	1,200	73[illegible]	568	440
19	22	22			[a] 25		[b] 27	673	1,090	74[illegible]	558	440
20	22	22		[a] 24			[b] 27	684	974	75[illegible]	547	440
21	22	22	[a] 23				27	640	888	757	498	440
22	22	22					[b] 28	662	802	763	456	435
23	22	22					28	679	831	768	440	429
24	22	22					28	696	860	763	435	429
25	22	[b] 22					29	696	888	763	435	429
26	22	22					29	735	860	763	429	414
27	22	22					100	774	802	763	424	398
28	22	22					226	802	774	757	403	383
29	22	22					226	831	774	757	378	312
30	22	22					226	860	740	757	363	113
31	22	------					------	916	------	774	358	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	22	22	22.0	1,350
November	427	22	64.5	3,840
December	216	22	36.2	2,230
January	----------	----------	23.7	1,460
February	----------	----------	2[illegible].8	1,380
March	----------	----------	25.9	1,590
April	226	25	49.0	2,920
May	916	226	579	35,600
June	1,320	740	1,010	60,100
July	774	532	72[illegible]	44,500
August	768	358	557	34,200
September	445	113	40[illegible]	24,000
The year	1,320	22	29[illegible]	213,000

[a] Estimated. [b] Interpolated.

BIG WOOD RIVER ABOVE NORTH GOODING CANAL, NEAR SHOSHONE, IDAHO

LOCATION.—Staff gage in sec. 10, T. 4 S., R. 18 E., 1 mile above North Gooding Canal, 13 miles below Magic Dam, and 14 miles northeast of Shoshone.

RECORDS AVAILABLE.—April 1921 to September 1933.

DISCHARGE.—Maximum daily discharge during year, 128 second-feet May 18 (gage height, 0.98 foot); channel reported dry throughout year except for periods during May and June.

1921–33: Maximum, 3,330 second-feet June 13, 1921 (gage height, 12.79 feet, old datum); no flow for long periods.

REMARKS.—Records fair. Numerous diversions for irrigation above station. Richfield and Lincoln Canals are main diversions between station and Magic Dam. Lincoln Canal, completed in spring of 1925, diverts all the flow, except during high water, to conserve channel losses in the natural stream bed. Flow regulated by diversions above and by operation of head gates at Magic Dam 13 miles above. Gage-height record and one discharge measurement furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1932–33

Day	May	June	Day	May	June	Day	May	June
1	0	-------	11	103	-------	21	42	-------
2	0	-------	12	122	-------	22	0	-------
3	0	-------	13	62	-------	23	0	-------
4	0	-------	14	57	-------	24	a 15	-------
5	0	70	15	49	-------	25	a 6	-------
6	0	a 2	16	91	a 26	26	0	-------
7	0	-------	17	104	a 10	27	0	-------
8	0	-------	18	126	0	28	0	-------
9	0	-------	19	73	-------	29	0	-------
10	0	-------	20	50	-------	30	0	-------
						31	0	-------

a Estimated.

NOTE.—No data concerning flow during June except as given above. No flow during months omitted. Discharge during June: Mean, 29.0 second-feet; run-off, 1,780 acre-feet.

BIG WOOD RIVER BELOW NORTH GOODING CANAL, NEAR SHOSHONE, IDAHO

LOCATION.—Staff gage in sec. 15, T. 4 S., R. 18 E., 300 yards below North Gooding Canal, 11 miles northeast of Shoshone, and 14 miles below Magic Dam.

RECORDS AVAILABLE.—January 1911 to September 1933.

DISCHARGE.—Maximum, 90 second-feet May 18 (gage height, 2.25 feet); reported dry throughout year except May 11–20.

1911–33: Maximum, 3,180 second-feet May 18, 1921 (gage height, 15.0 feet, former datum); no flow for long periods.

REMARKS.—Records fair. Water master for Big Wood and Little Wood Rivers reported no flow during 1933 prior to May 11 and after May 20. He furnished gage-height record and results of one discharge measurement. Numerous diversions above station. North Gooding and Richfield Canals divert water between station and Magic Dam. Since completion of the Lincoln Canal in 1925, which diverts 7 miles upstream, most of the river flow has been diverted above station.

Discharge, in second-feet, 1932–33

May 11	70	May 15	23	May 19	36
May 12	86	May 16	36	May 20	a 8
May 13	47	May 17	65		
May 14	28	May 18	90		

a Estimated.

NOTE.—No flow, according to water master, during months omitted. Mean discharge for May, 15.8 second-feet; total run-off, 972 acre-feet.

BIG WOOD RIVER AT GOODING, IDAHO

LOCATION.—Water-stage recorder in NE¼NE¼ sec. 31, T. 5 S., R. 15 E., 30 feet below highway bridge and half a mile north of Gooding.

RECORDS AVAILABLE.—April 1921 to September 1933. From June 1896 to October 1899 records were collected at station at approximately same site but known as "Malade River at Toponis, Idaho."

DISCHARGE.—Maximum during year, 258 second-feet May 2 (gage height, 2.68 feet); probably no flow for long periods.

1921–33: Maximum, 2,340 second-feet May 7, 1922 (gage height, 5.80 feet); no flow for long periods each year.

REMARKS.—Records good except those estimated, Apr. 17, 18, 20, 21, 23, 24, which are fair. No record during winter. Numerous diversions for irrigation above and below station. Flow regulated by operation of gates at Magic Dam. Gage-height record and twelve discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1933

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	29	213	84	68	29	32	16	0	164	79	62	28	32
2	29	248	68	68	30	33	17	2	146	82	66	29	30
3	40	200	54	70	30	33	18	10	149	73	57	30	30
4	84	164	51	71	30	30	19	19	112	68	53	33	29
5	32	152	62	73	28	30	20	5	90	86	50	34	29
6	20	141	82	68	28	30	21	3	112	61	46	35	28
7	20	181	62	56	32	30	22	2	122	62	40	40	26
8	4	188	88	54	31	30	23	3	112	71	42	36	27
9	0	188	82	53	31	32	24	1	79	71	44	32	26
10	0	207	71	50	30	32	25	0	75	70	42	30	29
11	0	188	68	46	30	32	26	0	86	71	41	32	31
12	0	178	54	54	29	28	27	0	53	82	35	33	32
13	0	169	61	51	30	28	28	0	53	73	34	33	32
14	0	149	82	53	33	27	29	0	100	61	37	30	30
15	0	158	79	57	31	30	30	117	114	73	34	29	29
							31		88		34	28	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April	117	0	14.0	833
May	248	53	141	8,670
June	88	51	71.0	4,220
July	73	30	51.7	3,180
August	40	28	31.1	1,910
September	33	26	29.9	1,780
The period				20,600

BIG WOOD RIVER NEAR GOODING, IDAHO

LOCATION.—Water-stage recorder in sec. 21, T. 6 S., R. 14 E., at Cleek ranch, 3½ miles above bridge on upper road between Bliss and Hagerman, 5 miles above diversion dam for King Hill project, and 6 miles southwest of Gooding.

RECORDS AVAILABLE.—March 1916 to September 1933.

DISCHARGE.—Maximum during year, 508 second-feet Apr. 4 (gage height, 3.85 feet); minimum, 6 second-feet Aug. 16 (gage height, 0.78 foot).

1916–33: Maximum, 3,680 second-feet Mar. 17, 1922 (gage height, 9.00 feet); no flow for long periods each year.

REMARKS.—Records good. No records Oct. 1 to Mar. 30. Diversions for irrigation above station. Flow regulated by storage reservoirs upstream. Gage-height record and four discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1933

Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1		196	226	29	24	23	22
2		173	311	21	24	23	21
3		211	311	13	77	21	18
4		334	253	10	72	21	15
5		199	231	12	74	18	13
6		140	208	35	53	17	17
7		130	233	14	23	20	16
8		124	253	29	22	23	18
9		143	255	44	20	22	23
10		148	290	39	19	19	24
11		112	265	44	21	19	22
12		91	242	26	26	16	20
13		87	235	20	24	19	19
14		105	197	36	20	20	18
15		128	194	46	22	14	18
16		154	211	40	20	10	20
17		190	236	41	23	10	21
18		190	215	30	18	16	20
19		140	144	30	16	18	17
20		141	102	31	15	23	23
21		126	98	53	19	21	26
22		101	114	30	16	28	20
23		72	126	31	18	26	18
24		65	88	30	23	17	19
25		43	59	27	25	14	27
26		40	44	25	24	13	27
27		40	30	23	19	18	26
28		24	16	26	18	24	26
29		18	41	23	17	19	23
30		105	101	24	18	17	19
31	217		51		24	18	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April	334	18	126	7,500
May	311	16	174	10,700
June	53	10	29.4	1,750
July	77	15	26.9	1,650
August	28	10	18.9	1,160
September	27	13	20.5	1,220
The period				24,000

BIG WOOD SLOUGH AT HAILEY, IDAHO

LOCATION.—Vertical staff gage in sec. 9, T. 2 N., R. 18 E., at highway bridge one-eighth of a mile northeast of steel highway bridge across Big Wood River and one-eighth of a mile southwest of Hailey.

RECORDS AVAILABLE.—June 1915 to September 1933.

DISCHARGE.—Maximum during year, 181 second-feet Oct. 11, May 10; maximum gage height, 3.10 feet Feb. 10; minimum, 2 second-feet May 13–22, minimum gage height, 0.80 foot May 14, 20–22.

1915–33: Maximum, 419 second-feet June 6, 1921 (gage height, 3.00 feet); practically no flow May 8, 1931.

REMARKS.—Records good except those estimated, Feb. 4–23 and May 22, which are fair. Flow affected by load on power plant half a mile upstream. Big Wood Slough, a natural channel of Big Wood River, is utilized as a tailrace for the Hailey power plant, half a mile upstream. This record represents a portion of natural flow of Big Wood River and, taken in conjunction with record of Big Wood River at Hailey, Idaho (p. 81), shows total flow of river at this point (p. 82). Four discharge measurements and one daily staff-gage reading Apr. 28 to May 12, May 23 to Sept. 30 furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	138	129	122	118	118	103	101	60	41	109	109
2	134	124	138	118	109	131	107	107	63	38	99	105
3	134	124	134	118	101	131	114	96	67	39	101	105
4	138	103	120	136		114	116	94	51	38	101	101
5	134	120	129	131		122	143	96	32	35	97	97
6	134	138	107	118		122	107	90	22	33	94	101
7	153	129	116	118		126	116	97	27	32	109	105
8	153	138	88	126		114	96	90	27	31	114	103
9	164	138	80	118	100	114	107	99	39	25	122	107
10	148	138	80	109		131	103	181	42	29	118	103
11	181	138	59	109		131	103	170	47	29	111	99
12	153	164	56	131		126	103	28	52	28	105	101
13	153	143	83	118		131	103	2	28	30	109	101
14	148	143	90	118		131	103	2	38	34	103	120
15	148	143	109	114		109	107	2	36	31	105	124
16	148	143	109	109		97	124	2	38	29	109	124
17	138	148	114	109		101	111	2	36	19	109	122
18	143	153	114	114	110	80	103	2	26	29	118	111
19	148	134	114	114		90	107	2	25	28	129	111
20	153	143	114	114		90	97	2	31	25	118	111
21	153	143	114	114		94	97	2	34	24	118	116
22	153	120	118	114	120	73	97	13	40	24	114	122
23	153	120	118	114	120	94	109	23	37	25	111	126
24	124	116	118	114	118	83	118	25	40	52	105	122
25	129	129	118	114	122	90	97	28	47	73	105	118
26	129	129	122	118	136	94	129	30	40	96	107	124
27	129	138	118	118	126	92	129	29	39	107	114	124
28	124	138	136	118	136	96	118	34	40	111	107	116
29	116	138	131	109	-------	103	124	38	36	94	103	116
30	120	138	136	131	-------	103	96	35	38	103	101	116
31	120	-------	122	109	-------	107	-------	57	-------	105	109	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	181	116	142	8,730
November	164	103	135	8,030
December	138	56	111	6,820
January	136	109	117	7,190
February	136	----------	110	6,110
March	131	73	108	6,640
April	143	96	110	6,550
May	181	2	50.9	3,130
June	67	22	39.3	2,340
July	111	19	46.4	2,850
August	129	94	109	6,700
September	126	97	112	6,660
The year	181	2	99.1	71,800

CAMAS CREEK NEAR BLAINE, IDAHO

LOCATION.—Water-stage recorder 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, 1½ miles below railroad bridge, 2¼ miles above backwater of Magic Reservoir, and 4 miles southeast of Blaine.

DRAINAGE AREA.—618 square miles.

RECORDS AVAILABLE.—May 1912 to September 1933. Discharge measurements only are available for 1922.

DISCHARGE.—Maximum during year, 2,510 second-feet Apr. 24 (gage height, 8.44 feet); minimum recorded, 1.8 second-feet Aug. 16 (gage height, 0.91 foot).

1911–33: Maximum, 5,240 second-feet Apr. 12, 1916; maximum gage height, 12.35 feet Apr. 5, 1925; minimum, 1.6 second-feet July 10, 11, 13, Aug. 25–29, 31, 1931 (gage height, 0.90 foot).

REMARKS.—Records good. No records during winter. Many small diversions above station. No regulation. Water passing station is used for storage in Magic Reservoir. Gage-height record and three measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1932–33

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-------	1,120	232	16	2.2	2.4	16	325	317	121	4.2	2.0	3.0
2	-------	1,040	235	14	2.1	2.4	17	540	363	112	4.2	2.0	2.8
3	-------	798	232	13	2.2	2.4	18	780	393	103	4.0	2.0	2.8
4	-------	705	222	13	2.2	2.4	19	765	410	93	3.6	2.1	2.8
5	-------	615	218	11	2.2	2.4	20	960	393	81	3.4	2.2	2.8
6	-------	510	205	11	2.2	2.6	21	1,150	354	71	3.4	2.1	2.8
7	-------	466	188	11	2.2	2.6	22	1,170	336	58	3.2	2.1	3.0
8	-------	438	175	10	2.2	2.6	23	1,060	319	46	3.0	2.2	2.8
9	-------	424	171	9.6	2.2	2.6	24	2,230	311	32	3.0	2.3	3.2
10	-------	424	166	7.8	2.1	2.6	25	1,960	300	22	2.7	2.3	3.4
11	-------	379	159	7.2	2.1	2.6	26	1,550	292	24	2.7	2.6	3.8
12	168	344	156	5.3	2.1	2.6	27	1,260	284	23	2.4	2.6	3.6
13	159	341	145	5.3	2.0	2.7	28	1,120	274	21	2.3	3.0	3.4
14	208	338	136	5.1	2.0	2.8	29	1,060	264	18	2.2	2.8	3.2
15	245	317	128	4.4	2.0	2.8	30	1,120	253	16	2.2	2.7	3.2
							31	-------	240	-------	2.2	2.4	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April 12-30	2,230	159	938	35,300
May	1,120	240	431	26,500
June	235	16	120	7,140
July	16	2.2	6.21	382
August	3.0	2.0	2.24	138
September	3.8	2.4	2.84	169
The period				69,600

LINCOLN CANAL NEAR RICHFIELD, IDAHO

LOCATION.—Water-stage recorder in sec. 9, T. 3 S., R. 18 E., at head of canal, 100 yards east of Shoshone-Hailey highway, 5½ miles below Magic Dam, and 12 miles northwest of Richfield.

RECORDS AVAILABLE.—April 1925 to September 1933.

DISCHARGE.—Maximum during year, 353 second-feet June 19 (gage height, 2.61 feet); no flow for long periods prior to Apr. 27.

1925–33: Maximum, 706 second-feet May 28, 1927 (gage height, 4.00 feet); no flow for long periods each year.

REMARKS.—Records good. No record Oct. 1 to Mar. 31. Canal diverts water from right bank of Big Wood River in sec. 9, T. 3 S., R. 18 E., and approximately parallels river for 10 miles to head of North Gooding Canal, in sec. 15, T. 4 S., R. 18 E., where water is returned to Big Wood River or diverted into North Gooding Canal. Canal is used to conserve large channel losses in natural bed of river. No diversions from canal above gage. Gage-height record and twelve discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1933

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	0	187	254	161	172	111	16	0	156	320	162	126	113
2	0	164	254	156	157	115	17	0	157	316	159	120	115
3	0	130	258	153	148	117	18	0	157	316	156	124	110
4	0	136	300	150	134	118	19	0	156	330	154	124	106
5	0	136	314	145	127	120	20	0	156	252	164	126	106
6	0	146	312	140	126	117	21	0	156	169	176	127	106
7	0	146	269	148	124	113	22	0	157	164	174	124	107
8	0	151	283	150	121	111	23	0	157	164	179	122	96
9	0	153	273	148	126	114	24	0	157	167	174	121	96
10	0	154	269	146	133	115	25	0	157	182	174	127	94
11	0	157	262	126	134	117	26	0	169	192	176	122	85
12	0	154	266	88	138	117	27	3	203	174	176	114	75
13	0	154	314	154	138	118	28	170	215	161	172	110	69
14	0	154	318	159	130	114	29	182	215	174	172	111	69
15	0	154	320	159	122	110	30	186	217	167	162	108	35
							31		230		165	110	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April	186	0	18	1,070
May	230	130	164	10,100
June	330	161	250	14,900
July	179	88	157	9,650
August	172	108	127	7,810
September	120	35	104	6,190
The period				49,700

LINCOLN CANAL NEAR SHOSHONE, IDAHO

LOCATION.—Water-stage recorder in sec. 15, T. 4 S., R. 18 E., a quarter of a mile above mouth of canal, 7 miles west by north from Richfield, 11 miles north-northeast of Shoshone, and 12½ miles below Magic Dam.

RECORDS AVAILABLE.—May 1925 to September 1933.

DISCHARGE.—Maximum during year, 311 second-feet June 5 (gage height, 1.63 feet); no flow during several periods.

1925–33: Maximum, 667 second-feet May 29, 1927 (gage height, 2.48 feet); no flow for long periods each year.

REMARKS.—Records good. No record Oct. 1 to Mar. 31. Canal diverts water from right bank of Big Wood River in sec. 9, T. 3 S., R. 18 E., and 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 returned to Big Wood River or diverted directly into North Gooding Canal. Canal is used to conserve large channel losses in natural bed of river. Five ditches have rights to divert 12.5 second-feet for irrigation above this station. Gage-height record and seven discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1933

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	0	162	204	131	145	87	16	0	131	283	136	104	91
2	0	160	204	131	136	91	17	0	131	276	136	98	95
3	0	112	210	131	134	91	18	0	129	273	134	102	91
4	0	116	250	125	121	93	19	0	129	273	127	104	87
5	0	118	293	123	116	93	20	0	125	256	143	102	87
6	0	118	250	116	114	91	21	0	125	147	147	102	86
7	0	127	276	125	114	91	22	0	125	136	145	100	87
8	0	129	256	129	110	89	23	0	125	134	150	97	79
9	0	131	219	127	108	93	24	0	125	136	147	95	77
10	0	131	234	125	114	93	25	0	123	150	145	100	75
11	0	134	228	125	116	93	26	0	129	160	145	98	72
12	0	134	244	59	118	95	27	0	157	147	145	95	61
13	0	131	273	125	121	95	28	88	177	131	143	89	50
14	0	131	280	134	110	91	29	157	177	145	140	87	52
15	0	131	280	134	102	89	30	160	177	138	138	86	38
							31	-------	185	-------	138	87	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April	160	0	13.5	803
May	185	112	137	8,420
June	293	131	216	12,900
July	150	59	132	8,120
August	145	86	107	6,580
September	95	38	83.4	4,960
The period				41,800

THORN CREEK SPILLWAY NEAR GOODING, IDAHO

LOCATION.—Water-stage recorder in sec. 6, T. 5 S., R. 16 E., 600 feet below diversion from North Gooding Canal, 900 feet above Thorn Creek, and 7½ miles northeast of Gooding.

RECORDS AVAILABLE.—April 1928 to September 1933.

DISCHARGE.—Maximum during year, 250 second-feet May 1 (gage height, 2.26 feet); probably no flow prior to Apr. 29.

1928–33: Maximum, that of May 1, 1933; no flow during nonirrigation season.

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. Gage-height record and results of seven discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1933

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	0	216	132	157	110	68	16	0	90	181	141	82	68
2	0	183	128	161	112	68	17	0	79	179	135	83	70
3	0	145	112	161	110	68	18	0	79	170	120	85	70
4	0	100	112	159	105	66	19	0	67	164	117	73	70
5	0	92	147	159	102	68	20	0	68	181	119	71	68
6	0	90	161	153	103	68	21	0	94	145	117	72	66
7	0	112	151	143	105	68	22	0	102	164	115	76	64
8	0	110	177	141	105	71	23	0	85	159	117	71	67
9	0	122	157	139	102	72	24	0	100	157	120	68	68
10		124	166	137	105	72	25	0	103	159	124	68	71
11		110	157	137	103	70	26	0	106	159	124	68	72
12	0	100	147	139	102	67	27	0	79	161	120	68	73
13	0	85	168	135	103	68	28	0	92	153	117	68	73
14	0	90	181	141	105	68	29	87	147	155	117	66	71
15	0	92	179	141	90	68	30	143	141	157	120	67	73
							31		122		115	68	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April	143	0	7.7	458
May	216	67	107.0	6,580
June	181	112	157	9,340
July	161	115	134	8,240
August	112	66	87.6	5,390
September	73	64	69.1	4,110
The period				34,100

NOTE.—There was probably no flow October to March.

LITTLE WOOD RIVER NEAR CAREY, IDAHO

LOCATION.—Water-stage recorder in E½ sec. 30, T. 1 N., R. 21 E., a third of a mile above West Canal and 6 miles northwest of Carey.

DRAINAGE AREA.—312 square miles.

RECORDS AVAILABLE.—April 1904 to May 1905; September 1926 to September 1933. February 1920 to September 1926 at station 6 miles upstream (records comparable except during spring run-off).

DISCHARGE.—Maximum during year, 550 second-feet June 3 (gage height, 3.07 feet); minimum, 17 second-feet Aug. 16 (gage height, 0.77 foot).

1904–5, 1926–33: Maximum, 1,180 second-feet Apr. 27, 1927 (gage height, 4.73 feet); maximum gage height, 5.1 feet May 22, 1904; minimum, 6 second-feet Sept. 4, 1931 (gage height, 0.54 foot).

REMARKS.—Records good except those for estimated periods, Nov. 5 to Mar. 26, Mar. 28 to Apr. 17, which are poor. Discharge Mar. 27 result of actual discharge measurement. A few small irrigation diversions above station. No regulation. Gage-height record furnished by water master for upper Little Wood River and Little Wood River Canal Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	54						300	494	127	29	22
2	40	55						310	490	121	29	21
3	40	55	45				60	282	516	113	28	20
4	41	52						254	453	110	27	19
5	43				30			248	376	102	26	18
6	44							222	342	95	24	18
7	46							220	359	86	24	19
8	51					40		220	332	81	24	20
9	52							205	359	74	24	21
10	52		30				80	193	383	70	22	20
11	54							182	379	67	22	20
12	54	50						180	376	68	21	20
13	54							171	376	65	20	18
14	52							169	372	70	19	18
15	52							175	379	73	18	19
16	52			35			150	186	372	71	18	21
17	54							210	359	67	17	21
18	55				35		243	202	300	64	19	20
19	55						248	191	259	60	24	21
20	54					35	235	189	227	58	22	21
21	54						237	202	205	53	22	20
22	54						259	240	200	50	23	22
23	54		35				313	251	186	44	22	22
24	52						294	251	184	41	21	24
25	52	45				40	304	274	180	38	21	28
26	54						297	313	164	35	24	28
27	54				40	45	300	383	160	33	25	27
28	54						359	372	156	32	24	26
29	55					50	407	369	143	29	22	25
30	54						386	407	135	29	22	24
31	52							461		28	22	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	55	40	50.8	3,120
November			48.9	2,910
December			35.0	2,150
January			35.0	2,150
February			33.8	1,880
March			40.2	2,470
April	407		176	10,500
May	461	169	253	15,600
June	516	135	307	18,300
July	127	28	66.3	4,080
August	29	17	22.7	1,400
September	28	18	21.4	1,270
The year	516	17	90.8	65,800

LITTLE WOOD RIVER NEAR RICHFIELD, IDAHO

LOCATION.—Water-stage recorder in sec. 30, T. 4 S., R. 20 E., half a mile above Jim Burns Slough and heading of Dietrich Canal and 1 mile east of railroad station at Richfield.

RECORDS AVAILABLE.—January 1911 to September 1933.

DISCHARGE.—Maximum during year, 218 second-feet Apr. 22 (gage height, 2.06 feet); minimum (estimated), 15 second-feet June 7, stage not recorded.

1911–33: Maximum recorded, 722 second-feet May 17, 18, 1911 (gage height, 4.5 feet); minimum, 7.6 second-feet June 24, 25, 1920 (gage height, 0.52 foot).

REMARKS.—Records good except those estimated, Apr. 7–13, June 7, which are fair. No records Oct. 1 to Apr. 5. Small ranch diversions above gage. Gage-height record and nine discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1933

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-------	210	30	31	70	123	16	200	163	18	83	64	84
2	-------	202	27	33	70	123	17	187	161	20	80	64	86
3	-------	207	20	35	71	121	18	190	149	20	80	65	88
4	-------	205	14	39	71	119	19	205	138	19	75	67	86
5	-------	194	15	35	71	107	20	197	125	18	74	72	84
6	180	192	14	30	71	98	21	187	119	31	71	98	84
7		190	15	30	70	88	22	192	113	52	75	109	72
8		192	48	32	70	86	23	187	107	58	76	115	74
9		194	62	32	71	86	24	184	96	60	75	115	75
10	180	187	65	54	71	86	25	190	89	48	74	119	78
11		184	64	76	71	84	26	190	88	32	72	123	80
12		184	62	84	72	80	27	187	83	27	74	125	78
13		180	48	88	71	83	28	187	78	28	72	127	78
14	175	175	20	86	71	86	29	192	65	30	71	127	80
15	200	168	18	86	65	86	30	202	55	31	67	125	86
							31	-------	41	-------	67	125	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April 6–30	205	175	188	9,320
May	210	41	146	8,980
June	65	14	33 8	2,010
July	88	30	63 1	3,880
August	127	64	87.0	5,350
September	123	72	89 0	5,300
The period				34,800

LITTLE WOOD RIVER AT SHOSHONE, IDAHO

LOCATION.—Water-stage recorder in sec. 2, T. 6 S., R. 17 E., just above diversion dam for town water supply and 400 feet above Shoshone-Richfield highway bridge in Shoshone.

RECORDS AVAILABLE.—April 1922 to September 1933.

DISCHARGE.—Maximum during year, 443 second-feet June 10 (gage height, 2.39 feet); minimum, 52 second-feet Sept. 30 (gage height, 0.90 foot).

1922–33: Maximum, 664 second-feet June 18, 1922 (gage height, 2.26 feet); practically no flow July 29, 1931.

REMARKS.—Records good. No records during winter. Numerous irrigation diversions above and below station. A small ditch for the Shoshone water supply diverts from left bank immediately below gage. Gage-height record and four discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Discharge, in second-feet, 1932–33

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1		132	169	366	400	360	299
2		129	214	382	402	362	295
3		140	214	388	399	364	295
4		157	222	388	395	345	277
5		178	230	400	390	340	264
6		200	242	392	383	348	259
7		192	264	392	378	352	264
8		178	264	397	380	358	272
9		166	299	434	374	350	272
10		163	295	424	374	348	277
11		154	286	402	378	342	272
12		145	286	392	382	340	268
13		126	277	400	374	340	268
14		148	264	400	382	335	268
15		145	254	388	376	323	277
16		134	250	394	378	319	286
17		137	242	394	374	323	282
18		142	238	392	372	331	277
19		166	222	394	374	335	290
20		160	222	405	372	331	282
21	89	142	250	395	372	342	272
22		126	259	385	374	350	277
23		126	272	378	378	342	272
24		116	272	376	378	327	277
25		118	299	376	380	315	282
26		121	311	382	374	327	277
27		116	315	395	368	335	277
28		108	352	400	366	331	277
29		94	407	403	366	323	268
30		116	383	403	366	315	85
31			376		358	299	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April	200	94	142	8,450
May	407	169	273	16,800
June	434	366	394	23,400
July	402	358	378	23,200
August	364	299	337	20,700
September	299	85	270	16,100
The period				109,000

FISH CREEK ABOVE DAM NEAR CAREY, IDAHO

LOCATION—Water-stage recorder in sec. 2, T. 1 N., R. 22 E., 1¼ miles above entrance of West Fork of Fish Creek, 1½ miles above dam of Carey Valley Reservoir Co., and 14 miles northeast of Carey.

DRAINAGE AREA.—56 square miles.

RECORDS AVAILABLE—May 1920 to September 1933.

DISCHARGE—Maximum during year, 54 second-feet Apr. 25, 29 (gage height, 0.92 foot); minimum, 0.9 second-foot July 29 (gage height, 0.07 foot).

1920–33: Maximum, 158 second-feet May 6, 1922 (gage height, 1.78 feet at former site); no flow Sept. 9–12, Oct. 17–27, 1926.

REMARKS.—Records good except those estimated, July 30 to Aug. 14, Aug. 16 to Sept. 6, Sept. 8–30, which are poor. Discharge interpolated Nov. 2, 3, Apr. 30, May 1, July 2, 5, 7. Results of current-meter measurements Aug. 15, Sept. 7. No records during winter. No regulation. Several small diversions above gage. Gage-height record furnished by water master for Fish Creek. Control is Cippoletti weir rated by current-meter measurements.

Daily discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	7.2	11	-------	49	22	2.2		
2	7.2	11	-------	47	23	2.8		
3	7.6	11	-------	42	24	3.5		
4	7.6	11	-------	38	25	3.2		1.5
5	8.1	13	-------	39	24	3.0		
6	8.1	-------	-------	38	22	2.9		
7	8.6	-------	-------	38	20	3.8	1.3	1.8
8	9.5	-------	-------	37	19	4.7		
9	9.5	-------	-------	35	20	5.0		
10	9.5	-------	-------	32	18	4.3		
11	9.5	-------	-------	31	17	3.9		
12	9.5	-------	-------	30	14	3.9		
13	9.5	-------	-------	29	13	3.9		
14	9.5	-------	-------	28	12	2.9		
15	9.5	-------	-------	28	12	1.9	1.3	
16	9.5	-------	-------	30	11	1.7		2.0
17	9.5	-------	-------	32	9.0	1.7		
18	9.0	-------	45	32	9.0	1.4		
19	8.6	-------	45	30	9.5	1.4		
20	8.6	-------	44	29	9.0	1.4		
21	9.0	-------	43	31	8.1	1.4		
22	9.5	-------	43	34	5.9	1.4		
23	9.5	-------	46	34	5.0	1.2	1.5	
24	9.5	-------	49	32	4.3	1.2		
25	10	-------	52	32	3.5	1.2		
26	11	-------	48	30	3.2	1.2		
27	11	-------	47	27	3.2	1.2		3.5
28	11	-------	48	25	3.2	1.4		
29	11	-------	52	24	2.9	1.2		
30	11	-------	50	22	2.6	1.3		
31	11	-------	-------	20	-------			-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	11	7.2	9.33	574
November 1–5	13	11	11.4	113
April 18–30	52	43	47.1	1,210
May	49	20	32.4	1,990
June	25	2.6	12.5	744
July	5.0	-------	2.37	146
August	-------	-------	1.40	86
September	-------	-------	2.19	130

NOTE.—During high stages of April and May an undetermined flow is reported to have passed around station.

FISH CREEK NEAR CAREY, IDAHO

LOCATION.—Water-stage recorder in sec. 15, T. 1 N., R. 22 E., 600 feet below Carey Valley Reservoir Co.'s dam, 1½ miles upstream from 1931 location, and 11 miles northeast of Carey. Prior to Nov. 11, 1930, station was located in sec. 22, 1½ miles downstream; records comparable.

RECORDS AVAILABLE.—April 1919 to September 1920; May 1923 to September 1933. Discharge measurements only in 1921 and 1922.

DISCHARGE.—Maximum during year, 109 second-feet July 20, 21 (gage height, 1.44 feet); practically no flow during nonirrigation season.

1919–20, 1923–33: Maximum, 170 second-feet May 19, 1927 (gage height, 1.91 feet); practically no flow during winters since 1920.

REMARKS.—Records good. Discharge estimated or interpolated Apr. 21, Aug. 3, 4, Sept. 3–6, 8, 17–23, 25–29. No records Oct. 23 to Apr. 17. Flow regulated by storage in Fish Creek Reservoir. No diversions between station and dam. Gage-height record furnished by water master for Fish Creek.

Daily discharge, in second-feet, 1932–33

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1	16		5.8	75	30	86	3.6
2	16		5.8	81	12	82	3.6
3	16		5.8	81	17	78	3.7
4	16		5.8	80	17	74	3.7
5	16		5.8	79	18	70	3.8
6	16		5.8	79	37	69	3.8
7	13		5.8	79	44	65	3.9
8	7.9		5.8	71	57	61	3.8
9	5.0		2.9	58	66	44	3.6
10	5.0		.7	50	66	7.5	3.6
11	5.0		.7	48	71	5.8	3.6
12	5.0		.7	54	80	10	3.6
13	5.0		1.4	58	86	13	3.6
14	5.0		4.3	58	88	13	3.9
15	5.0		4.3	57	89	12	4.3
16	5.0		4.3	51	88	12	3.9
17	5.0		4.3	47	88	12	3.9
18	5.0	1.1	2.6	44	87	3.9	3.8
19	5.0	3.4	3.2	44	90	3.6	3.8
20	5.0	13	8.8	44	103	3.6	3.7
21	5.0	20	12	50	106	3.6	3.7
22	5.0	20	20	56	106	3.6	3.6
23		20	20	55	105	3.6	4.3
24		20	20	52	104	3.6	4.6
25		14	28	49	102	3.6	4.6
26		6.2	41	48	99	3.6	4.6
27		5.8	41	48	97	3.6	4.6
28		5.8	41	48	96	3.6	4.6
29		5.8	48	48	95	3.6	4.6
30		5.8	57	41	91	3.6	4.6
31			63		89	3.6	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October 1–22	16	5.0	8.50	371
April 18–30	20	1.1	10.8	278
May	63	.7	15.3	941
June	81	41	57.8	3,440
July	106	12	75.0	4,610
August	86	3.6	24.7	1,520
September	4.6	3.6	3.97	236

SILVER CREEK NEAR PICABO, IDAHO

LOCATION.—Water-stage recorder in sec. 1, T. 2 S., R. 20 E., 1½ miles below mouth of drain ditch of Blaine County Drainage District No. 1 and 3 miles southeast of Picabo.

RECORDS AVAILABLE.—May 1920 to September 1933.

DISCHARGE.—Maximum recorded during year, 206 second-feet Apr. 14–19 (gage height, 2.44 feet); minimum, 39 second-feet June 5 (gage height, 0.61 foot).

1920–33: Maximum, 312 second-feet Apr. 3, 1923 (gage height, 3.29 feet); minimum, 26 second-feet June 2, 1920 (gage height, 0.48 foot).

REMARKS.—Records good. No records Oct. 1 to Apr. 13. Discharge estimated Apr. 15–18; interpolated Apr. 20, 23, 24, 27, May 15, Aug. 13. Numerous diversions for irrigation above station. Some water is passed around station by slough on right bank heading 300 feet above gage. Gage-height record and five discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Daily discharge, in second-feet, 1933

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1		156	58	75	109	148	16		140	53	12[illegible]	99	104
2		158	52	78	109	145	17	206	141	52	12[illegible]	97	107
3		163	47	78	109	143	18		140	49	12[illegible]	98	106
4		151	42	70	111	142	19	206	130	50	12[illegible]	101	104
5		148	39	71	109	132	20	198	124	67	117	116	101
6		152	44	73	108	117	21	191	128	95	117	131	99
7		147	66	78	108	114	22	182	129	96	119	142	96
8		156	96	78	111	113	23	177	125	97	117	146	94
9		151	95	91	111	109	24	172	121	89	11[illegible]	150	95
10		150	91	124	110	107	25	166	123	68	115	153	107
11		148	91	131	111	109	26	168	122	65	115	153	111
12		150	88	135	106	109	27	162	119	66	115	156	111
13		147	53	133	102	108	28	157	108	71	113	157	112
14	206	140	51	131	98	105	29	157	90	71	10[illegible]	154	113
15	206	140	52	128	99	101	30	162	63	78	10[illegible]	152	113
							31		65		10[illegible]	150	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April 14–30	206	157	184	6,200
May	163	63	13[illegible]	8,180
June	97	39	67.7	4,030
July	135	70	10[illegible]	6,580
August	157	97	121	7,440
September	148	94	11[illegible]	6,660
The period				39,100

NOTE.—During the season the following estimates of flow in bypass channel which carries water around gage on right bank were made:

Date	Second-feet	Date	Second-feet	Date	Second-feet	Date	Second-feet
Apr. 21	12	May 5	1.5	June 27	0.5	July 12	0
Apr. 22	10	May 6	.5	June 29	1	July 15	0
Apr. 25	6	May 7	0	July 1	1	Aug. 26	1.2
Apr. 28	2.5	May 31	0	July 3	1	Aug. 27	1.2
Apr. 29	2.5	June 11	1	July 5	.7	Aug. 30	1.2
May 1	3	June 13	0	July 7	1.2	Aug. 31	1
May 3	3	June 20	1.5	July 9	1.5	Sept. 2	.5
May 4	2	June 21	.5	July 11	1	Sept. 3	0

KING HILL CANAL NEAR HAGERMAN, IDAHO

LOCATION.—Staff gage in SW¼ sec. 27, T. 6 S., R. 13 E., half a mile west of highway bridge over Big Wood River, 1,000 feet below heading at Idaho Power Co.'s canal, 430 feet above mouth of inverted siphon crossing Snake River, and 3½ miles north of Hagerman.

RECORDS AVAILABLE.—March 1930 to September 1933.

DISCHARGE.—Maximum during year, 306 second-feet June 17–23 (gage height, 3.60 feet); no flow July 4, 5, and practically none during nonirrigation season.

1930–33: Maximum, 306 second-feet Aug. 22–25, 1932, and June 17–26, 1933; maximum gage height, 3.64 feet July 3, 4, 1931; practically no flow during nonirrigation season.

REMARKS.—Records good. Water is diverted from Big Wood Piver via Idaho Power Co.'s canal by King Hill Irrigation District for use on its project. Gage-height record furnished by King Hill Irrigation District.

Discharge, in second-feet, 1932–33

Day	Oct.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	243			243	287	303	291	287
2	240		12	233	289	303	291	283
3	238		12	213	295	215	291	280
4	237		31	213	298	0	290	280
5	237		66	235	299	0	290	280
6	237		93	246	299	173	290	280
7	237		97	246	299	288	290	279
8	237		97	246	299	288	293	280
9	178		97	252	299	290	293	280
10			97	259	299	291	291	282
11			107	263	301	291	290	282
12			133	268	303	293	288	282
13			144	271	303	295	288	279
14			144	271	303	296	288	274
15			144	271	303	298	287	274
16			154	271	303	298	285	277
17			168	271	306	291	285	285
18			181	271	306	287	288	283
19			191	271	306	288	291	280
20			194	271	306	291	291	279
21			210	271	306	290	287	279
22		11	233	271	306	290	287	271
23			239	271	306	290	287	267
24			244	271	306	290	285	256
25			247	271	210	290	283	260
26			228	206	286	288	280	252
27			223	236	301	288	280	248
28			228	271	303	288	283	243
29			238	275	303	288	283	243
30			243	281	303	290	287	243
31				286		291	287	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October 1–9	243	178	232	4,140
April 2–30	247	12	155	8,920
May	286	206	258	15,900
June	306	210	298	17,700
July	303	0	267	16,400
August	293	280	288	17,700
September	287	243	273	16,200

NOTE.—Gates closed during nonirrigation season when there was no flow except small leakage or occasional run to soak the flume.

CANYON CREEK BASIN

MOUNTAIN HOME FEEDER CANAL NEAR MOUNTAIN HOME, IDAHO

LOCATION.—Water-stage recorder above concrete control in sec. 36, T. 2 S., R. 6 E., 30 feet below point of diversion from Canyon Creek and 5 miles north of Mountain Home.

RECORDS AVAILABLE.—April 1924 to September 1929; April 1931 to September 1933.

DISCHARGE.—Maximum during year, 120 second-feet Apr. 4 (gage height, 1.83 feet); no flow reported during fall and winter months.

1924–29, 1931–33: Maximum, 226 second-feet Feb. 21, 1927 (gage height, 2.18 feet, old datum); no flow for long periods each year.

REMARKS.—Records good except those for Sept. 18–30, which are poor. Canal diverts from Canyon Creek in sec. 36, T. 2 S., R. 6 E.; water used for irrigation on about 5,000 acres included in project of the Mountain Home Irrigation District for which water is delivered by the Mountain Home Cooperative Canal, which heads in the feeder canal half a mile below gage. When there is a surplus of water for irrigation, canal feeds direct into the Mountain Home Reservoir. No diversions from canal above gage; three small diversions between gage and headgates of Mountain Home Cooperative Canal half a mile below. Flow regulated by headgate in Canyon Creek and by storage in Long Tom Reservoir. Gage-height record furnished by Mountain Home Irrigation District.

Discharge, in second-feet, 1933

Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1		56	69	79	74	60	63
2		62	73	78	74	55	62
3		85	68	78	73	46	42
4		105	64	84	73	44	38
5		88	65	84	72	42	[b] 37
6		81	60	81	70	41	[b] 36
7		70	63	81	72	41	[b] 34
8		62	61	81	72	40	[b] 33
9		53	59	79	71	39	32
10		46	57	78	71	40	18
11		43	56	78	70	41	18
12		42	55	82	69	44	20
13		43	52	83	68	45	18
14		49	50	81	68	48	17
15		62	58	81	67	50	15
16		73	57	86	65	50	14
17	51	74	62	87	79	65	10
18	35	68	[b] 61	85	84	69	
19	35	68	[b] 60	85	91	69	
20	35	76	59	85	94	70	[a] 6
21	31	74	58	84	92	70	
22	28	75	55	82	89	70	
23	25	83	55	83	82	69	
24	24	83	61	83	79	68	
25	22	87	65	80	77	68	
26	22	95	63	79	75	68	[a] 3
27	24	90	62	78	75	67	
28	34	85	66	78	75	65	
29	47	85	66	78	74	64	
30	49	75	72	77	73	65	
31	49	------	79	------	63	64	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
March 17–31	51	22	34.1	1,010
April	105	42	71.3	4,240
May	79	50	61.6	3,790
June	87	77	81.3	4,840
July	94	63	75.2	4,620
August	70	39	56.0	3,440
September	63	------	1[illegible]8	1,120
The period	------	------	------	23,100

[a] Estimated. [b] Interpolated.

MOUNTAIN HOME COOPERATIVE CANAL NEAR MOUNTAIN HOME, IDAHO

LOCATION.—Water-stage recorder in sec. 36, T. 2 S., R. 6 E., at Lamberton Weir, 250 feet below point of diversion in Mountain Home feeder canal and 4½ miles north of Mountain Home.

RECORDS AVAILABLE.—April 1924 to September 1929; April 1931 to September 1933.

DISCHARGE.—Maximum during year, 89 second-feet July 20 (gage height, 1.41 feet); no water diverted into canal during nonirrigation season; probably no flow prior to April and after Sept. 15.

1924–29, 1931–33: Maximum, 109 second-feet July 16, 1925 (gage height, 1.69 feet); no flow during nonirrigation periods.

REMARKS.—Records good except those for Apr. 1–9, Apr. 11 to May 2, which are fair. No diversions between gage and head of canal. Flow regulated by gates at head of canal and by operation of gates in Long Tom Reservoir. Canal is fed by Mountain Home Feeder Canal. Water is used for irrigation on about 5,000 acres of the Mountain Home Irrigation District. Gage-height record furnished by Mountain Home Irrigation District.

Discharge, in second-feet, 1933

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1		a 0.3	66	70	56	41	16		42	74	62	45	0
2		a 0.3	66	70	a 51	36	17		43	73	74	44	0
3		a 16	67	68	a 42	32	18		b 42	72	79	46	0
4		25	74	68	a 40	30	19		b 42	65	85	46	0
5	a 0.3	27	74	67	a 38	24	20		41	62	87	46	0
6		28	72	65	37	22	21		41	65	86	46	0
7		31	71	66	37	20	22		41	65	80	47	0
8		31	71	67	b 37	29	23	a .3	43	65	78	48	0
9		29	70	b 66	37	29	24		48	64	76	48	0
10	.3	30	69	64	37	18	25		52	62	75	47	0
11		32	67	64	37	16	26		50	62	74	46	0
12		35	71	62	41	18	27		51	62	73	46	0
13	a .3	35	71	62	41	17	28		52	63	72	44	0
14		35	70	62	44	15	29		55	68	70	44	0
15		40	69	62	46	a 2.4	30		61	70	69	43	0
							31		66		59	44	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April			0.30	18
May	66		37.6	2,310
June	74	62	68.0	4,050
July	87	59	70.4	4,330
August	56	37	43.6	2,680
September	41	0	11.6	690
The period				14,100

a Estimated. b Interpolated.

BRUNEAU RIVER BASIN

EAST FORK OF JARBIDGE RIVER NEAR THREE CREEK, IDAHO

LOCATION.—Water-stage recorder in sec. 24, T. 16 S., R. 9 E., 2 miles above confluence with Jarbidge River and 10½ miles southwest of Three Creek.

RECORDS AVAILABLE.—October 1928 to March 1933 (discontinued).

DISCHARGE.—Maximum during period, 44 second-feet Nov. 17, 18 (gage height, 1.46 feet); minimum, 4.6 second-feet Dec. 7 (gage height, 0.77 foot).

1928–33: Maximum, 584 second-feet May 25, 1929, June 25, 1932 (gage height, 3.54 feet); minimum, 3.2 second-feet Aug. 25, 1931, Feb. 15, 1932; minimum gage height, 0.66 foot Mar. 7, 1930.

REMARKS.—Records good except those estimated, Dec. 30 to Mar. 23, Mar. 25–31, which are poor. No diversions for irrigation above station. Gage-height record furnished by Salmon River Canal Co., Ltd.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	9.9	11	9.9				16	9.5	12	7.5			
2	9.9	10	11				17	9.9	23	8.7			
3	9.9	10	11				18	11	34	9.5			
4	9.5	8.7	8.7				19	11	23	9.5			
5	9.5	11	10				20	11	19	9.1			10
						9							
6	9.1	12	6.5				21	11	16	8.3			
7	9.9	12	6.0				22	12	15	8.7		9	
8	11	10	7.0				23	12	12	8.7			
9	10	12	7.2	9	9		24	11	14	9.1	9		9.9
10	9.9	12	7.5				25	11	14	9.1			
11	9.5	8.3	7.5				26	11	13	9.1			
12	9.5	11	7.9				27	11	12	9.1			10
13	9.5	12	8.3				28	10	12	9.1			
14	9.5	11	8.3			10	29	10	11	9.1		-------	
15	9.5	9.9	7.9				30	10	11	9			
							31	9.1	-------			-------	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	12	9.1	10.2	627
November	34	8.3	13.4	797
December	11	6.0	8.62	530
January	----------	----------	9.0	553
February	----------	----------	9.0	500
March	----------	----------	9.67	595
The period	----------	----------	----------	3,600

OWYHEE RIVER BASIN

OWYHEE RIVER AT MOUNTAIN CITY, NEV.

LOCATION.—Water-stage recorder in SE¼ sec. 36, T. 46 N., R. 53 E., at Mountain City, half a mile below California Creek.

DRAINAGE AREA.—350 square miles.

RECORDS AVAILABLE.—May to December 1913; November 1926 to September 1933.

DISCHARGE.—Maximum during year, 765 second-feet Apr. 28 (gage height, 4.85 feet); minimum, 2.6 second-feet Oct. 20.

1913, 1927–33: Maximum, 1,510 second-feet Mar. 26, 1928 (gage height, 7 feet); no flow July 29 to Sept. 15, 1931.

REMARKS.—Records fair. Diversions for irrigation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	7	9		572		31	7	4
2	8	9		495	a 400	29	6	4
3	9	9		460		28	6	4
4	9	7		404	349	28	6	3
5	9	8	a 50	388		28	6	3
6	8	6		359		26	6	3
7	6			316		27	7	3
8	6			325		31	5	3
9	6			330		27	5	3
10	6	a 8	81	311	a 250	23	5	3
11	6		85	295		20	6	3
12	6		88	304		18	5	3
13	6	10	81	316		16	5	3
14	7		96	325		12	6	3
15	6	a 15	176	330	161	8	6	3
16	6		299		136	8	5	3
17	5		288		122	8	4	3
18	4	19	264	a 375	108	7	4	3
19	4	19	187		92	8	3	4
20	3	16	218		79	7	3	4
21	3	15	269	390	68	7	3	3
22	3	13	349		61	6	3	3
23	3	11	468		55	5	4	3
24	4	15	532		50	3	4	3
25	4	13	572	a 500	44	3	4	3
26	6	13	598		42	3	4	3
27	9	13	712		38	4	4	3
28	9	13	730	455	34	4	4	4
29	10	13	718		34	4	4	4
30	12	13	718	a 425	33	4	4	5
31	9					6	4	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	12	3	6.42	395
November	19		11.7	696
December			a 12	738
January			a 10	615
February			a 12	666
March			a 20	1,230
April	730		266	15,800
May		295	404	24,800
June		33	174	10,400
July	31	3	14.2	873
August	7	3	4.77	293
September	5	3	3.3	196
The year	730	3	78.1	56,700

a Estimated.

OWYHEE RIVER ABOVE OWYHEE RESERVOIR, OREG.

LOCATION.—Water-stage recorder in SE¼ sec. 18, T. 27 S., R. 43 E., 3 miles above flow line of Owyhee Reservoir and 8 miles southwest of Watson. Zero of gage is about 2,690 feet above mean sea level as determined by U.S. Bureau of Reclamation.

RECORDS AVAILABLE.—October 1931 to September 1933.

DISCHARGE.—Maximum during year, 4,800 second-feet Apr. 17 (gage height, 8.84 feet); minimum, 113 second-feet July 30 (gage height, 3.62 feet).

1931–33: Maximum, 15,000 second-feet Mar. 20, 1932 (gage height, 12.95 feet); minimum, that of July 30, 1933.

REMARKS.—Records good except those estimated because of ice, Dec. 8, 9, 11–20, Jan. 18, 19, and Feb. 7–20, which are fair. Diversions for irrigation above station. Discharge slightly regulated by storage in 11 small reservoirs having total capacity of 52,000 acre-feet. Records furnished by U.S. Bureau of Reclamation and State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	192	194	197	202	220	727	3,260	1,300	223	144	130
2	158	192	194	200	208	220	905	3,050	1,300	217	139	132
3	160		194	200	208	229	1,110	2,860	1,300	205	130	135
4	163		192	200	205	235	1,770	2,670	1,260	200	130	132
5	166		194	202	202	238	3,260	2,400	1,260	192	128	128
6	170		192	205	202	235	2,560	2,090	1,140	186	132	124
7	170		192	205		241	2,290	1,900	1,080	181	139	124
8	173		[a] 185	205		250	2,190	1,770	1,000	173	139	128
9	173		[a] 165	208		244	1,950	1,720	938	166	137	126
10	173		153	205		247	1,640	1,680	840	166	128	126
11	173	[a] 195		205		266	1,340	1,680	763	163	130	126
12	176			202		273	1,140	1,770	715	160	130	130
13	178			197	[a] 184	279	970	1,500	661	163	128	126
14	178			194		306	970	1,720	611	158	126	124
15	178			194		341	1,140	1,460	578	158	132	130
16	178		[a] 187	194		356	2,090	1,340	525	151	132	132
17	181			189		370	3,970	1,300	482	144	130	135
18	183			[a] 182		406	3,190	1,380	454	148	132	132
19	178			[a] 191		418	2,400	1,420	438	146	132	132
20	186			205		398	2,400	1,380	402	144	132	132
21	186	200	232	200	208	406	2,450	1,380	374	139	130	130
22	189	200	220	194	211	434	2,560	1,300	348	132	132	132
23	186	197	214	194	211	426	2,620	1,300	327	135	137	132
24	189	197	205	197	211	398	2,500	1,380	302	135	137	135
25	189	197	205	197	214	370	2,450	1,590	296	135	132	137
26	192	197	202	200	217	352	2,450	1,640	276	132	132	142
27	192	200	200	200	214	348	2,670	1,540	260	128	135	142
28	192	200	202	205	217	378	2,670	1,500	241	130	135	144
29	192	197	205	205	------	454	2,790	1,500	235	126	132	144
30	189	197	200	205	------	505	2,920	1,420	223	122	128	142
31	192	------	197	200	------	578	------	1,340	------	130	130	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	192	158	179	11,000
November	----------	----------	196	11,700
December	----------	----------	194	11,900
January	208	----------	199	12,200
February	217	----------	197	10,900
March	578	220	336	20,700
April	3,970	727	2,140	127,000
May	3,260	1,300	1,750	108,000
June	1,300	223	664	39,500
July	223	122	158	9,720
August	144	126	133	8,180
September	144	124	132	7,860
The year	3,970	122	523	379,000

[a] Estimated.

OWYHEE RESERVOIR AT OWYHEE DAM, NEAR NYSSA, OREG.

LOCATION.—Staff gage in sec. 20, T. 22 S., R. 45 E., at Owyhee Dam, 21 miles southwest of Nyssa. Gage readings are altitudes above mean sea level.

RECORDS AVAILABLE.—October 1932 to September 1933.

EXTREMES.—Maximum contents during year, 150,600 acre-feet May 15 (elevation, 2,523.8 feet); no storage prior to Oct. 16, when gates were partly closed for first time.

REMARKS.—Owyhee Dam, built by the U.S. Bureau of Reclamation, was completed in September 1932. Storage of water for irrigation began Oct. 16, 1932. Capacity of reservoir at elevation 2,670 feet is 1,120,000 acre-feet above elevation 2,367.5 feet (sluice gates) and 715,000 acre-feet above elevation 2,590.2 feet (diversion tunnel). According to the plan for operation, the water level will not generally be drawn below elevation 2,590.2 feet. Water is released through diversion tunnel for irrigation of lands west of Snake River near Homedale, Idaho, and Nyssa and Ontario, Oreg.; also released through dam to river for Owyhee Canal which diverts about 18 miles downstream.

Monthly stage and contents, 1932–33

Date	Gage height	Contents	Change in contents during month	Date	Gage height	Contents	Change in contents during month
	Feet	*Acre-feet*	*Acre-feet*		*Feet*	*Acre-feet*	*Acre-feet*
Sept. 30		0	0	June 30	2,502.1	103,400	−45,000
Dec. 31	2,417.5	10,860	+10,860	July 31	2,483.37	71,440	−31,960
Jan. 31	2,437.4	22,310	+11,450	Aug. 31	2,474.08	58,420	−13,020
Feb. 28	2,450.8	32,970	+10,660	Sept. 30	2,467.12	49,750	−8,670
Mar. 31	2,468.9	51,880	+18,910				
Apr. 30	2,514.2	128,300	+76,420	The year			+49,750
May 31	2,522.9	148,400	+20,100				

OWYHEE RIVER BELOW OWYHEE DAM, OREG.

LOCATION.—Water-stage recorder in sec. 17, T. 22 S., R. 45 E., three-quarters of a mile below Owyhee Dam. Zero of gage is 2,343.67 feet above mean sea level.

RECORDS AVAILABLE.—February 1929 to September 1933.

DISCHARGE.—Maximum during year, 1,480 second-feet May 12 (gage height, 4.38 feet); minimum, about 1 second-foot at times when gates of Owyhee Dam were closed.

1929–33: Maximum, 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 gage was closed.

REMARKS.—Records good except those estimated, which are fair, Diversions for irrigation above station. Flow regulated since Oct. 16, 1932, by Owyhee Dam, which was completed by U.S. Bureau of Reclamation in September 1932. Record furnished by U.S. Bureau of Reclamation and State engineer.

Discharge, in second-feet, 1932–33.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	147	137	200	------	------			1,410	1,440	1,340	329	289
2	145	262	204	------	------			1,410	1,440	1,340	332	289
3	147	318	204	------	------			1,440	1,440	1,340	313	289
4	147	264	202	------	------			1,440	1,440	1,300	297	289
5	149	178	202	------	------			1,440	1,440	1,300	297	289
6	152	178	202	------	------			1,440	1,440	1,300	297	289
7	178	180	200	------	------		[a]3.5	1,440	1,440	1,300	297	289
8	174	180	134	------	------			1,440	1,440	758	295	289
9	170	180		------	------			1,440	1,440	419	295	289
10	170	180		------	------			1,440	1,440	419	295	287
11	170	181		------	------	[a]2.5		1,440	1,440	419	295	287
12	166	185		------	------			1,440	1,440	419	295	287
13	165	191		------	------			1,440	1,440	419	295	287
14	170	195		------	------		728	1,440	1,440	419	295	287
15	170	191		------	------		1,300	1,440	1,440	423	295	284
16	116	191		------	------		1,300	1,440	1,410	419	295	228
17	70	193		------	------		1,340	1,440	1,410	419	295	230
18	76	195		------	------		1,270	1,440	1,410	419	292	228
19	69	195		------	------		1,380	1,440	1,410	419	292	228
20	68	193	[a]2.0	------	------		1,380	1,440	1,410	419	292	228
21	71	193		------	------		1,380	1,440	1,410	413	292	228
22	66	193		1.5	------	31	1,380	1,440	1,380	390	292	228
23	61	193		------	------	3.0	1,380	1,440	1,380	380	292	228
24	58	193		------	------		1,380	1,440	1,380	377	292	228
25	54	193		------	12		1,380	1,440	1,380	377	292	228
26	54	191		------	------		1,380	1,440	1,380	377	289	228
27	56	191		------	------	[a]3.0	1,410	1,440	1,380	380	289	228
28	58	189		------	------		1,410	1,440	1,380	377	289	190
29	59	189		------	------		1,410	1,440	1,340	377	289	98
30	61	193		------	------		1,410	1,440	1,340	364	289	95
31	65	------		------	------		------	1,440	------	349	289	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	178	54	112	6,890
November	318	137	196	11,700
December	204	----------	51.4	3,160
January	----------	----------	[a]1.5	92
February	12	----------	[a]2.0	111
March	31	----------	3.55	218
April	1,410	----------	755	44,900
May	1,440	1,410	1,440	88,500
June	1,440	1,340	1,410	83,900
July	1,340	349	618	38,000
August	332	289	296	18,200
September	289	95	248	14,800
The year	1,440	----------	429	310,000

[a] Estimated.

BOISE RIVER BASIN

BOISE RIVER NEAR TWIN SPRINGS, IDAHO

LOCATION.—Water-stage recorder in sec. 27, T. 4 N., R. 6 E., a quarter of a mile above Birch Creek, 1½ miles above flow line of Arrowrock Reservoir, 4 miles below Twin Springs, and 13 miles above Arrowrock.

DRAINAGE AREA.—830 square miles.

RECORDS AVAILABLE.—March 1911 to September 1933.

DISCHARGE.—Maximum during year, 7,260 second-feet June 16 (gage height, 6.91 feet); minimum, 164 second-feet Dec. 11 (gage height, 1.65 feet).

1911–33: Maximum, 10,300 second-feet May 17, 1927 (gage height, 8.30 feet); minimum, about 142 second-feet Nov. 13, 1916.

REMARKS.—Records good except those estimated, which are fair. Results of two discharge measurements furnished by water master for Boise River and Board of Control for Boise project.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	295	b300	b346				642	2,470	6,270	1,590	455	295
2	295	b297	b345			a320	740	2,130	6,080	1,500	461	290
3	290	b293	343				1,120	1,870	6,270	1,430	455	285
4	290	290	a300			321	1,350	1,810	5,890	1,370	437	280
5	290	354			a300	305	1,150	1,750	4,940	1,320	419	275
6	305	419	a250			321	1,110	1,630	4,760	1,250	407	270
7	360	377				383	971	1,620	4,670	1,180	401	270
8	371	332	a200			407	826	1,500	4,400	1,130	389	275
9	338	544				395	725	1,360	5,700	1,120	389	285
10	321	401	175			389	650	1,270	6,460	1,020	377	280
11	321	285	164			419	592	1,240	5,890	944	365	275
12	316	348	a170			443	578	1,250	5,890	892	354	270
13	310	365				449	550	1,320	6,460	842	343	265
14	316	348	a200			443	571	1,500	6,660	810	338	260
15	338	321				449	725	1,810	6,660	778	326	300
16	338	360		a320		504	1,070	2,130	6,660	748	326	326
17	338	395	a250			524	1,230	2,200	5,890	710	321	305
18	332	401				504	1,120	2,200	4,940	672	321	285
19	321	395				485	1,100	2,060	4,130	658	360	285
20	310	383	a300		a320	511	1,360	2,060	3,590	635	338	280
21	316	365				492	1,440	2,400	3,330	613	326	275
22	321	360				437	1,500	2,620	3,240	592	326	270
23	326	300				407	1,940	2,620	3,000	571	321	275
24	310	280				383	2,130	2,690	2,760	550	310	285
25	300	321				377	2,330	3,080	2,690	524	300	338
26	326	360	a320			389	2,620	3,770	2,400	518	310	332
27	321	383				407	3,000	4,220	2,200	498	316	321
28	316	383				461	3,420	3,860	2,130	492	305	305
29	310	365				557	3,770	3,860	2,000	479	295	300
30	b307	348				550	3,240	4,580	1,750	467	285	290
31	b303					557		5,700		455	290	

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	371	290	318	0.383	0.44	19,600
November	544	280	356	.429	.48	21,200
December		164	273	.329	.38	16,800
January			320	.386	.44	19,700
February			313	.377	.39	17,400
March	557		427	.514	.59	26,300
April	3,770	550	1,450	1.75	1.95	86,300
May	5,700	1,240	2,410	2.90	3.34	148,000
June	6,660	1,750	4,590	5.53	6.17	273,000
July	1,590	455	850	1.02	1.18	52,300
August	461	285	354	.427	.49	21,800
September	338	266	288	.347	.39	17,100
The year	6,660	164	994	1.20	16.24	720,000

a Estimated. b Interpolated.

ARROWROCK RESERVOIR AT ARROWROCK, IDAHO

LOCATION.—In E½ sec. 13, T. 3 N., R. 4 E., at Arrowrock, 22 miles by road east of Boise. Gage reads altitude above sea level.

RECORDS AVAILABLE.—October 1917 to September 1933.

EXTREMES.—Maximum contents during year, 283,700 acre-feet June 24 (gage height, 3,213.4 feet); minimum, 2,035 acre-feet Oct. 23 (gage height, 2,995.0 feet).

1917–33: Maximum contents, 286,100 acre-feet May 19, 20, 1925 (gage height, 3,214.2 feet); no storage for periods during several years when natural flow was passing through reservoir.

REMARKS.—Capacity of reservoir is 276,500 acre-feet between elevations 2,967.0 and 3,211.0 feet. Stored water is used for irrigation of land in Boise Valley. Gage-height record and table of storage capacity furnished by U.S. Bureau of Reclamation.

Contents, in acre-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22,710	10,780	51,800	47,300	48,720	66,500	21,520	121,700	246,400	279,500	169,500	51,580
2	21,200	12,090	52,900	46,300	49,930	66,370	24,650	125,300	259,600	277,400	166,100	48,500
3	20,070	13,500	54,120	45,200	51,140	65,980	28,640	127,800	271,200	275,300	162,800	45,200
4	18,510	15,020	55,320	44,000	52,130	65,200	34,180	129,500	276,800	272,900	159,400	42,330
5	16,920	16,370	56,520	42,780	53,010	64,420	39,990	131,000	277,400	271,200	156,000	39,450
6	15,300	17,770	57,360	41,520	54,000	63,510	45,100	132,400	277,100	268,300	152,300	36,570
7	15,220	19,420	58,080	40,260	54,840	61,950	49,820	133,400	278,000	265,700	148,600	33,800
8	15,220	20,890	58,920	39,270	55,680	56,280	54,000	135,000	278,600	263,100	145,000	21,180
9	15.180	22,220	59,400	38,430	56,280	52,020	57,240	136,000	279,200	259,900	141,400	30,390
10	14,990	24,120	59,760	37,460	56,880	50,150	58,320	136,200	281,900	256,500	137,800	29,400
11	14,830	25,630	60,000	36,250	57,600	48,300	57,960	136,800	281,900	252,600	134,000	29,190
12	14,710	26,770	60,260	34,970	58,800	46,500	56,400	138,200	281,900	248,600	130,000	28,840
13	14,600	28,230	60,520	33,720	60,000	45,300	54,840	139,800	282,200	244,500	125,900	28,570
14	14,480	29,610	60,780	32,580	60,910	43,900	53,120	141,000	282,800	240,300	121,500	28,160
15	14,400	30,890	61,170	32,280	61,820	42,240	51,580	142,000	282,800	236,400	117,400	27,820
16	14,330	32,130	61,560	32,130	62,860	40,530	51,140	144,800	283,100	232,000	113,000	27,690
17	14,250	33,560	62,340	33,030	64,030	39,180	52,350	148,600	282,500	228,100	108,600	27,690
18	12,610	35,130	62,730	33,870	65,070	38,110	53,560	152,900	281,000	223,900	104,200	27,690
19	10,620	36,730	64,290	34,810	65,330	36,980	54,000	157,100	280,100	219,500	99,920	26,580
20	8,373	38,190	65,330	35,930	65,590	35,850	55,440	161,100	281,600	215,000	95,500	25,250
21	5,919	39,630	65,070	37,060	65,720	34,810	58,440	164,900	283,100	210,500	91,500	23,270
22	3,903	40,890	63,640	38,270	65,850	33,410	61,560	169,900	283,400	206,300	87,350	21,150
23	2,035	42,150	61,690	39,360	66,240	31,910	65,200	175,300	283,100	202,200	83,450	19,180
24	2,869	43,320	58,680	40,530	66,370	30,460	69,490	179,900	283,700	198,100	79,440	17,540
25	3,585	44,500	55,200	41,520	66,500	28,840	74,400	184,600	283,400	194,300	75,380	15,340
26	4,112	45,500	54,360	42,420	66,500	27,160	80,300	190,600	283,100	190,800	71,440	15,180
27	4,855	46,700	53,230	43,600	66,500	25,630	87,820	198,800	282,800	187,100	67,540	15,100
28	5,666	47,900	52,020	44,800	66,500	24,070	96,690	208,000	282,500	183,500	64,160	15,220
29	6,445	49,160	50,810	45,700	-------	23,270	106,400	215,200	282,200	179,900	60,910	15,300
30	7,974	50,700	49,710	46,600	-------	22,710	116,100	223,400	281,000	176,400	57,480	15,340
31	9,484	-------	48,500	47,700	-------	22,000	-------	233,600	-------	172,900	54,480	-------

NOTE.—These values do not allow for possible silt effect.

BOISE RIVER AT DOWLING RANCH, NEAR ARROWROCK, IDAHO

LOCATION.—Water-stage recorder in sec. 15, T. 3 N., R. 4 E., at Dowling ranch, three-quarters of a mile above Moore Creek and 4 miles below Arrowrock.

DRAINAGE AREA.—2,230 square miles.

RECORDS AVAILABLE.—March 1911 to September 1933.

DISCHARGE.—Maximum during year, 11,400 second-feet June 16 (gage height, 8.02 feet); minimum (estimated), 12 second-feet Nov. 3, 4.

1911–33: Maximum, 17,600 second-feet May 11, 1928 (gage height, 9.55 feet); minimum (estimated), 5 second-feet Nov. 2–10, Dec. 21–31, 1924, Jan. 1–6, Mar. 26–29, 1925.

REMARKS.—Records good except those estimated Oct. 29, 30, Nov. 2–7, 15–30, Dec. 1–17, 23, Jan. 16, 17, 28, Feb. 1–19, which are fair. Flow regulated by storage in Arrowrock Reservoir. No diversions above station. Gage-height record furnished by U.S. Bureau of Reclamation. Twelve discharge measurements furnished by water master for Boise River and Board of Control for Boise project.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,010	158	110	1,280	100	728	866	3,750	4,240	3 840	2,540	2,020
2	1,280	120	115	1,270	85	886	35	3,660	4,900	3 750	2,540	2,090
3	1,340	12	120	1,340	85	1,090	36	3,470	7,290	3 660	2,540	2,020
4	1,390	12	120	1,310	85	1,150	37	3,560	9,570	3 560	2,540	2,020
5	1,390	85	120	1,390	120	1,140	35	3,470	9,570	3 560	2,460	1,950
6	936	85	120	1,390	170	1,310	34	3,380	8,400	3 470	2,540	1,880
7	705	85	120	1,340	200	2,780	32	3,290	8,400	3 470	2,540	1,810
8	758	138	120	1,270	220	3,390	208	3,120	8,120	3 560	2,460	1,300
9	780	125	120	1,250	220	1,740	824	3,120	8,690	3 560	2,460	954
10	772	105	120	1,310	220	1,740	1,440	2,860	10,500	3 560	2,460	804
11	735	133	120	1,390	140	1,680	1,950	2,540	10,200	3 560	2,540	698
12	728	128	120	1,340	90	1,680	2,160	2,320	10,200	3 560	2,620	691
13	728	75	120	1,310	150	1,680	2,160	2,390	10,800	3 560	2,620	784
14	720	135	125	1,310	220	1,740	2,320	2,780	11,100	3 470	2,620	684
15	720	115	140	758	220	1,880	2,320	3,030	11,100	3 470	2,620	633
16	728	95	200	265	180	1,810	2,240	2,780	11,400	3 380	2,780	635
17	1,140	75	200	165	170	1,740	2,240	2,620	10,800	3 290	2,780	590
18	1,500	75	193	249	440	1,680	2,390	2,620	8,980	3 380	2,700	780
19	1,560	75	196	177	550	1,680	2,390	2,540	6,880	3 380	2,620	981
20	1,560	75	622	128	576	1,680	2,020	2,540	5,610	3 380	2,540	1,440
21	1,500	75	1,120	94	583	1,740	1,880	2,540	5,730	3 200	2,540	1,560
22	1,280	90	1,390	83	576	1,740	2,020	2,700	5,730	3 120	2,540	1,440
23	728	55	1,900	170	576	1,680	2,320	3,120	5,140	3 030	2,460	1,390
24	499	20	2,700	128	583	1,680	2,540	3,470	5,020	2.940	2,460	1,560
25	477	100	1,310	105	656	1,740	2,940	3,560	4,790	2.700	2,460	1,050
26	472	100	1,250	120	656	1,740	2,940	3,470	4,460	2.780	2,460	742
27	445	100	1,320	155	656	1,740	3,030	3,470	4,140	2.780	2,320	635
28	419	100	1,310	140	656	1,740	3,120	3,660	3,940	2.700	2,160	583
29	280	60	1,280	133	------	1,740	3,200	3,750	3,940	2.700	2,160	590
30	100	20	1,280	152	------	1,810	3,470	3,750	3,940	2.620	2,090	583
31	147	------	1,280	135	------	1,740	------	3,940	------	2.540	2,020	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,560	100	865	53,200
November	158	12	87.5	5,210
December	2,700	110	625	38,400
January	1,390	83	699	43,000
February	656	85	328	18,200
March	3,390	728	1,690	104,000
April	3,470	32	1,770	105,000
May	3.940	2,320	3,140	193,000
June	11,400	3,940	7,450	443,000
July	3,840	2,540	3,280	202,000
August	2,780	2,020	2,490	153,000
September	2,090	583	1,160	69,000
The year	11,400	12	1,970	1,430,000

BOISE RIVER AT NOTUS, IDAHO

LOCATION.—Staff gage in sec. 34, T. 5 N., R. 4 W., at steel highway bridge a quarter of a mile south of Notus and 7 miles northwest of Caldwell.

RECORDS AVAILABLE.—April 1920 to September 1933.

DISCHARGE.—Maximum during year, 8,180 second-feet June 16 (gage height, 6.20 feet); minimum, 28 second-feet July 10 (gage height, 0.28 foot).

1920–33: Maximum, 14,500 second-feet May 19, 20, 1921; maximum gage height, 7.4 feet May 12, 1928; minimum, 10 second-feet Aug. 18, 1920.

REMARKS.—Records good. Discharge estimated June 14. Station is below all diversions for irrigation in Boise Valley. Flow regulated by storage in Arrowrock Reservoir. Numerous irrigation diversions above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	645	710	615	585	1,050	710	780	119	127	32	37
2	49	678	678	585	585	1,860	1,050	950	127	121	30	32
3	46	678	710	585	585	2,410	710	1,000	1,510	103	32	32
4	39	645	710	585	530	1,160	678	645	2,590	34	34	37
5	39	645	678	710	558	820	710	710	6,690	34	37	34
6	40	645	678	710	530	745	1,050	645	5,860	32	34	34
7	96	678	645	710	530	710	780	585	4,820	32	37	34
8	193	710	645	710	645	2,590	710	435	4,820	74	30	41
9	217	780	710	585	710	2,410	710	395	5,070	44	34	44
10	255	780	645	585	678	860	710	268	6,980	28	37	44
11	296	780	615	645	678	780	435	193	7,570	39	34	44
12	359	710	645	645	710	745	359	170	6,690	37	39	44
13	395	745	615	645	678	745	435	170	6,130	34	37	41
14	395	645	585	645	645	780	678	127	6,130	32	37	38
15	435	645	585	645	645	820	678	170	7,570	39	34	39
16	435	860	585	585	645	745	710	530	8,180	37	34	34
17	585	780	585	585	678	860	615	435	7,870	37	34	37
18	678	820	558	585	710	1,000	435	395	7,270	36	34	37
19	678	780	585	645	678	860	217	326	4,820	34	34	34
20	710	710	860	585	585	645	255	296	2,080	37	32	37
21	950	645	710	585	745	645	217	205	1,510	39	34	41
22	860	710	710	585	645	710	193	170	1,640	41	34	46
23	950	710	820	505	645	678	127	127	1,640	39	37	49
24	1,160	645	745	585	710	645	170	119	820	41	38	64
25	950	645	860	615	710	645	170	111	645	37	32	88
26	950	710	780	585	710	645	645	107	435	37	30	127
27	950	780	710	585	645	678	242	103	242	39	30	148
28	1,050	645	678	645	710	678	193	123	193	40	30	159
29	1,050	710	678	645	------	710	268	193	170	40	32	170
30	860	710	585	645	------	710	780	170	135	32	32	170
31	645	------	585	585	------	710	------	127	------	30	34	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,160	39	528	32,500
November	860	645	709	42,200
December	860	558	674	41,400
January	710	505	618	38,000
February	745	530	647	35,900
March	2,590	645	969	59,600
April	1,050	127	521	31,000
May	1,000	103	348	21,400
June	8,180	119	3,680	219,000
July	127	28	45.4	2,790
August	39	30	33.8	2,080
September	170	32	60.5	3,600
The year	8,180	28	731	529,000

DIVERSIONS FROM BOISE RIVER, IDAHO

Below mouth of Moore Creek and between gaging stations at Dowling ranch and Notus, 27 principal canals and a number of small farm laterals divert water from Boise River for irrigation use. Records are available from 1919 to 1933. Records of daily diversions subsequent to 1915 on file in the office of Idaho Commissioner of Reclamation.

Daily gage-height records were obtained, frequent discharge measurements made, and records summarized under direction of W. E. Welsh, water master for Boise River.

Total amount of water, in acre-feet, diverted by each canal during irrigation season of 1933

Main canal of U.S. Bureau of Reclamation	633,000	Phyllis	109,000
Penitentiary	1,450	Eureka, No. 1	6,320
Ridenbaugh	141,000	Pioneer (Little Pioneer)	9,120
Bubb	4,230	Canyon County	19,700
Consumers (Cruzen)	6,510	Caldwell High Line	12,900
Boise City, No. 1	10,300	Riverside, No. 2	40,700
Settlers	44,600	Farmers Cooperative	78,200
Thurmans Mill	8,360	Canyon (Campbell)	4,850
Farmers Union (includes Boise Valley diversion)	50,700	Seibenberg	3,420
New Union (Little Union)	3,480	Pioneer Dixie	7,870
New Dry Creek (Dry Creek)	17,500	Eureka, No. 2	11,300
Ballantine	3,400	Upper Center Point	2,630
7 Eagle Island canals	11,400	Lower Center Point	2,780
Middleton Water Co	19,900	Miscellaneous	7,540
Middleton Mill Ditch	22,700		1,290,000

Combined monthly discharge of canals diverting from Boise River, Idaho, during irrigation season of 1933

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April	5,200	52	2,390	142,000
May	5,320	3,800	4,570	281,000
June	5,590	4,910	5,430	323,000
July	4,820	3,220	4,070	250,000
August	3,370	2,680	3,140	193,000
September	2,680	1,610	1,770	105,000
The period				1,290,000

SOUTH FORK OF BOISE RIVER NEAR LENOX, IDAHO

LOCATION.—Water-stage recorder in sec. 24, T. 2 N., R. 6 E., 1½ miles above mouth of Smith Creek, 4 miles above flow line of Arrowrock Reservoir, 4 miles west of discontinued Lenox post office, 13 miles above mouth of river, and 17 miles above Arrowrock Dam.

DRAINAGE AREA.—1,090 square miles.

RECORDS AVAILABLE.—March 1911 to September 1933.

DISCHARGE.—Maximum during year, 5,190 second-feet June 3 (gage height, 7.41 feet); minimum (estimated), 150 second-feet Dec. 11–13.

1911–33: Maximum, 9,200 second-feet May 15, 1917 (gage height, 9.53 feet); minimum, 125 second-feet Sept. 5–7, 1931 (gage height, 1.68 feet).

REMARKS.—Records good except those estimated, Nov. 15 to Jan. 12, Jan. 15–17, 26–31, Feb. 1 to Mar. 16, which are fair. Discharge interpolated July 30 to Aug. 2. No diversions for irrigation above station. Results of two measurements furnished by water master for Boise River and board of control for Boise project.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	262	310					523	2,640	4,680	1,250	330	248
2	262	320					569	2,430	4,850	1,180	325	245
3	262	320	300				708	2,130	5,020	1,110	320	231
4	262	310					1,010	2,030	4,850	1,040	314	226
5	268	300				300	1,040	2,030	4,350	1,010	303	226
6	274	380	250		280		942	1,940	3,880	942	297	223
7	284	388		300			878	1,900	3,880	878	293	223
8	317	342					791	1,850	3,730	878	284	228
9	320	417	200				708	1,680	3,880	821	281	234
10	314	430					650	1,520	4,190	761	277	234
11	310	338				350	600	1,480	4,190	708	271	234
12	310	310	150				595	1,480	4,350	667	271	234
13	310	357		300			595	1,440	4,510	628	265	231
14	310	353		300			622	1,480	4,510	595	256	231
15	310		200	295		385	725	1,720	4,510	569	248	234
16	310						1,010	1,990	4,510	543	237	251
17	314	350				384	1,220	2,080	4,190	523	226	256
18	317			287		376	1,180	2,080	3,590	499	223	231
19	317			254		372	1,220	1,980	3,060	475	234	226
20	314		250	265	290	357	1,400	1,980	2,700	448	248	231
21	314			274		365	1,480	2,180	2,430	439	245	228
22	317			293		357	1,480	2,430	2,320	435	245	231
23	320	340		287		346	1,850	2,590	2,180	417	251	242
24	320			287		361	2,180	2,640	2,030	405	254	251
25	303			287		349	2,430	2,820	1,900	392	256	274
26	320		300			368	2,760	3,180	1,760	376	268	287
27	328					380	3,060	3,590	1,640	365	271	284
28	324	320		290		409	3,380	3,450	1,560	357	268	274
29	320				------	452	3,660	3,380	1,520	346	256	268
30	320				------	480	3,120	3,730	1,360	341	245	262
31	310	------			------	484	------	4,190	------	336	242	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	328	262	305	0.280	0.32	18,800
November	430	------	342	.314	.35	20,400
December	------	------	252	.231	.27	15,500
January	------	254	292	.268	.31	18,000
February	------	------	286	.262	.27	15,900
March	484	------	360	.330	.38	22,100
April	3,660	523	1,410	1.29	1.44	83,900
May	4,190	1,440	2,320	2.13	2.46	143,000
June	5,020	1,360	3,400	3.12	3.48	202,000
July	1,250	336	637	.584	.67	39,200
August	330	223	268	.246	.28	16,500
September	287	223	243	.223	.25	14,500
The year	5,020	------	843	.773	10.48	610,000

LITTLE CAMAS RESERVOIR NEAR BENNETT, IDAHO

LOCATION.—Staff gage near left end of dam in NE¼ sec. 9, T. 1 S., R. 9 E., 4 miles northeast of Bennett and 22 miles northeast of Mountain Home.

DRAINAGE AREA.—31.8 square miles.

RECORDS AVAILABLE.—March 1924 to September 1933.

EXTREMES.—Maximum altitude during year, 4,962.0 feet June 1, 5; minimum, 4,949.5 feet Sept. 3.

1924–33: Maximum altitude 4,965.5 feet May 26, 1928; practically no storage after irrigation season of each year.

REMARKS.—Records poor. Capacity of reservoir is 22,300 acre-feet between gage heights 4,931.0 feet and 4,965.0 feet. Water used for irrigation on about 5,000 acres of land in the vicinity of Mountain Home. Gage-height record furnished by Mountain Home Irrigation District.

Elevation, in feet, 1933

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1		4,962.0		4,955.7		16					
2					4,949.9	17		4,961.6			
3			4,959.9		4,949.5	18			4,957.7		
4						19		4,961.5		4,952.7	
5		4,962.0		4,955.0		20					
6	4,959.2					21			4,957.3		
7			4,959.3			22			4,957.3	4,952.1	
8		4,961.9		4,954.5		23		4,961.1			
9						24	4,961.5				
10		4,961.8				25			4,956.5		
11			4,958.8			26		4,960.7		4,951.3	
12		4,961.8		4,953.9		27					
13						28	4,961.8				
14						29			4,956.2	4,950.7	
15			4,958.3	4,953.4		30		4,960.2			
						31					

NOTE.—Altitudes refer to datum of the Mountain Home Irrigation District.

LITTLE CAMAS CANAL AT HEADING, NEAR BENNETT, IDAHO

LOCATION.—Staff gage in sec. 9, T. 1 S., R. 9 E., 400 feet below 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 1933; irrigation seasons only.

DISCHARGE—Maximum during year, 59 second-feet June 26 to Aug. 10 (gage height, 2.34 feet); canal dry except during irrigation season.

1917, 1924–33: Maximum, 77 second-feet Apr. 27–30, May 1, 3, 9, 1924; no flow except during irrigation seasons.

REMARKS.—Records fair. Canal diverts from Little Camas Reservoir, in sec. 9, T. 1 S., R. 9 E., discharges into Long Tom Basin, and is collected in Long Tom Reservoir for release for irrigation of 5,000 acres near Mountain Home. No diversions above gage. Gage read about twice a week; discharges interpolated between dates of observations. Flow regulated by headgates at Little Camas Reservoir. Gage-height record furnished by Mountain Home Irrigation District.

Discharge, in second-feet, 1932–33

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	0	27	59	59	57	16	0	36	59	57	0
2	0	28	59	59	57	17	0	42	59	57	0
3	0	28	59	59	26	18	0	44	59	57	0
4	0	28	59	59	0	19	0	51	59	57	0
5	0	31	59	59	0	20	0	53	59	57	0
6	0	32	59	59	0	21	0	53	59	57	0
7	0	32	59	59	0	22	0	53	59	57	0
8	0	34	59	59	0	23	8.4	53	59	57	0
9	0	35	59	59	0	24	17	55	59	57	0
10	0	35	59	57	0	25	17	56	59	57	0
11	0	35	59	57	0	26	17	58	59	57	0
12	0	9.4	59	57	0	27	17	59	59	57	0
13	0	0	59	57	0	28	20	59	59	57	0
14	0	21	59	57	0	29	21	59	59	57	0
15	0	34	59	57	0	30	21	59	59	57	0
						31	21		59	57	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May	21	0	5.14	316
June	59	0	40.0	2,380
July	59	59	59.0	3,630
August	59	57	57.6	3,540
September	57	0	4.7	280
The year	59	0	14.0	10,000

NOTE.—No flow during months omitted.

MOORE CREEK NEAR ARROWROCK, IDAHO

LOCATION.—Staff gage in sec. 21, T. 3 N., R. 4 E., at bridge on Boise-Arrowrock highway a quarter of a mile above mouth and 3 miles southwest of Arrowrock.

DRAINAGE AREA.—426 square miles.

RECORDS AVAILABLE.—October 1914 to September 1933 (discharge measurements only prior to December 1915).

DISCHARGE.—Maximum during year (estimated), 2,800 second-feet Apr. 28 (gage height, 4.4 feet, from high water marks); minimum, 20 second-feet Sept. 6 (gage height, 0.09 foot).

1915–33: Maximum (estimated), 4,250 second-feet Mar. 19, 1932; maximum gage height, 6.3 feet Apr. 11, 1916; minimum, 7.9 second-feet Aug. 13–15, 17, 18, 1924; minimum gage height, 0.00 foot Sept. 2–4, 1931.

REMARKS.—Records fair. Discharge interpolated Dec. 11. No important diversions above station. Gage-height record furnished by Board of Control for Boise project. Ten discharge measurements furnished by water master for Boise River and Board of Control.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	68	96	75	76	85	388	1,400	955	156	34	27
2	37	71	96	75	73	89	432	1,500	955	125	35	27
3	37	75	99	78	66	101	698	1,300	955	134	36	24
4	35	68	89	76	58	101	955	1,210	915	127	37	23
5	37	83	82	76	58	101	800	1,160	800	125	36	22
6	39	101	68	80	64	101	800	1,120	800	115	32	20
7	48	117	59	80	70	109	635	1,080	698	103	29	22
8	48	103	42	83	54	109	550	915	635	101	25	22
9	46	180	42	83	70	117	500	838	730	99	25	25
10	48	144	42	83	60	127	388	698	800	92	25	27
11	48	103	32	78	70	127	347	635	665	83	22	29
12	43	98	21	85	82	140	367	698	665	82	23	26
13	45	94	30	65	85	156	410	635	635	75	25	25
14	48	90	34	71	71	140	478	635	635	68	25	23
15	49	89	33	75	75	140	605	698	605	65	23	25
16	53	96	37	73	78	167	875	838	550	59	21	27
17	54	156	39	68	78	208	915	875	500	59	21	29
18	56	167	43	62	78	208	838	800	432	53	23	29
19	56	156	46	68	82	208	955	730	388	51	24	30
20	56	140	53	75	85	238	1,120	698	347	52	25	30
21	59	127	52	75	82	254	1,160	765	308	47	24	31
22	58	119	58	82	85	222	1,080	800	289	48	25	31
23	64	107	60	78	85	208	1,300	765	254	47	25	33
24	60	98	60	85	82	193	1,400	800	238	43	24	34
25	62	98	58	82	59	193	1,500	800	222	40	25	43
26	65	98	70	85	62	193	1,710	915	193	39	24	45
27	65	101	76	71	68	222	1,820	915	193	34	29	47
28	62	101	75	75	82	222	1,820	838	167	30	29	52
29	64	98	78	80	------	289	1,930	838	193	29	24	47
30	66	101	78	76	------	308	1,710	915	167	29	25	46
31	64	------	71	80	------	308	------	955	------	33	25	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	66	35	51.9	3,190
November	180	68	108	6,430
December	99	21	58.7	3,610
January	85	62	76.7	4,720
February	85	54	72.8	4,040
March	308	85	174	10,700
April	1,930	347	950	56,500
May	1,500	635	896	55,100
June	955	167	530	31,500
July	156	29	72.4	4,450
August	37	21	26.6	1,640
September	52	20	30.7	1,830
The year	1,930	20	254	184,000

DEER FLAT RESERVOIR NEAR CALDWELL, IDAHO

LOCATION.—Staff gage at each end of reservoir, attached to outlet structures. One is at lower embankment in SE¼ sec. 19, T. 3 N., R. 3 W., 5 miles south and 2 miles west from Caldwell. The other is at upper embankment in NW¼ sec. 36, T. 3 N., R. 3 W., 1 mile south and 4 miles west from Nampa.

RECORDS AVAILABLE.—October 1917 to September 1933.

EXTREMES.—Maximum contents during year, 178,500 acre-feet Apr. 21 (gage height, 30.14 feet); minimum, 9,719 acre-feet Oct. 18.

1917–33: Maximum contents, 178,900 acre-feet Apr. 27, 28, 1922, and Apr. 24, 1932 (gage height, 30.18 feet); minimum, 5,390 acre-feet Oct. 22, 1924.

REMARKS.—Reservoir has a capacity of 177,153 acre-feet between gage heights 0.0 and 30.0 feet. In addition to local drainage, water for storage is diverted from Boise River at diversion 8 miles below mouth of Moore Creek and carried to reservoir through the main canal of the Boise project. It is used for irrigation of lower project lands. Gage-height record and table of storage capacity furnished by Board of Control for Boise project.

Contents, in acre-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,420	13,600	19,430	44,870	74,580	81,540	157,800	169,800	155,800	122,600	60,200	21,740
2	12,030	13,750	19,550	47,070	74,450	82,910	160,600	169,400	154,200	120,900	58,760	20,700
3	11,620	13,900	19,540	49,210	74,320	84,640	160,000	168,800	152,800	119,200	57,210	19,840
4	11,250	14,170	19,760	51,440	74,190	86,300	159,500	169,200	150,900	117,100	55,800	19,020
5	10,790	14,380	19,950	53,780	74,060	88,050	159,100	169,700	149,600	115,100	54,640	18,150
6	10,540	14,520	20,050	55,920	73,930	89,820	158,700	170,200	148,000	113,200	53,720	17,400
7	10,320	14,780	20,130	58,160	73,800	91,600	158,200	171,500	146,200	111,000	52,570	16,420
8	10,230	15,060	20,270	60,260	73,730	93,900	157,700	172,900	144,600	108,500	51,330	15,620
9	10,130	15,220	20,340	62,390	73,670	96,300	157,200	173,800	143,800	106,400	50,040	14,960
10	9,955	15,350	20,430	64,120	73,670	98,940	158,100	175,200	142,400	103,600	48,650	14,200
11	10,090	15,580	20,540	66,230	73,600	102,200	159,700	176,600	141,300	101,100	47,340	13,490
12	10,060	15,790	20,580	68,380	73,600	105,000	161,800	177,300	140,700	98,700	45,610	13,250
13	10,060	16,050	20,630	70,170	73,530	108,300	163,900	177,200	140,000	96,520	44,340	13,240
14	10,000	16,210	20,830	72,360	73,470	110,700	166,400	176,900	139,100	94,480	43,290	13,190
15	9,885	16,390	20,930	74,190	73,530	113,500	168,600	176,500	137,800	92,170	42,080	12,510
16	9,837	16,750	20,980	75,310	73,400	116,100	171,400	175,900	136,700	89,960	40,650	12,370
17	9,790	17,070	21,160	76,170	73,400	118,500	173,600	175,300	135,700	88,050	39,140	12,190
18	9,719	17,320	21,300	76,230	73,270	121,100	175,600	174,900	134,400	85,950	37,530	11,890
19	9,720	17,520	21,500	76,170	73,210	123,800	176,700	174,700	133,300	83,740	36,070	11,700
20	10,280	17,700	21,640	76,040	73,210	126,500	177,600	174,400	132,500	81,750	34,760	11,440
21	10,840	17,940	21,760	75,900	73,210	129,000	178,500	173,600	132,100	79,650	33,380	11,160
22	11,400	18,050	21,870	75,770	74,720	131,600	178,100	172,900	131,600	77,700	32,050	10,910
23	11,640	18,160	24,130	75,570	76,040	134,200	177,500	171,500	131,100	75,110	30,930	10,710
24	11,890	18,320	26,400	75,440	76,830	136,900	176,800	170,000	130,300	73,930	29,780	10,550
25	12,270	18,470	29,020	75,310	78,100	139,600	176,200	168,100	129,900	72,230	28,420	10,430
26	12,550	18,650	31,610	75,110	78,700	142,000	174,800	165,800	129,400	70,300	27,580	10,310
27	12,740	18,820	33,490	74,980	79,440	114,800	173,700	164,100	128,700	68,640	26,450	10,220
28	13,040	19,020	35,850	74,910	80,460	147,500	172,500	163,100	127,300	66,860	25,490	10,140
29	13,200	19,260	38,030	74,850	-------	150,000	171,500	162,400	125,700	64,980	24,570	10,070
30	13,290	19,380	40,400	74,720	-------	153,000	170,600	160,000	124,200	63,310	23,390	9,919
31	13,480	-------	42,620	74,720	-------	155,400	--------	157,800	--------	61,660	22,400	-------

MALHEUR RIVER BASIN

MALHEUR RIVER NEAR DREWSEY, OREG.

LOCATION.—Water-stage recorder in SE¼ sec. 3, T. 22 S., R. 36 E., half a mile above flow line of Warmsprings Reservoir and 10 miles southeast of Drewsey.

RECORDS AVAILABLE.—April to September 1923; June 1926 to September 1933. June to December 1920 and April to September 1921 at station 7 miles upstream.

DISCHARGE.—Maximum during year, 845 second-feet Apr. 29 (gage height, 4.66 feet); minimum, 0.2 second-foot Sept. 2, 3, 5–10.

1920–21, 1923, 1926–33: Maximum, 3,800 second-feet Mar. 19, 1932 (gage height, 8.17 feet); minimum, that of Sept. 2, 3, 5–10, 1933.

REMARKS.—Records good except those estimated and those for Nov. 4 to Dec. 9, which are poor. Several small diversions above station. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	1.2	5.0			309	605	252	62	2.7	0.4
2	10	1.2	5.0			355	585	272	57	2.7	.2
3	10	1.2	4.7			525	605	281	47	2.5	.2
4	10	1.1	4.2			735	488	312	38	2.5	.4
5	11	1.4	4.2			565	488	318	19	2.1	.3
6	11	2.0	4.4		[a]100	505	435	302	28	2.7	.2
7	10	2.7				470	379	263	27	3.0	.2
8	9	5.0				376	368	252	25	3.0	.2
9	8	5.0				269	334	249	24	2.9	.2
10	7	4.4				218	305	293	23	3.2	.4
11	6	5.7			275	202	263	299	2	3.2	.4
12	6	3.9			351	252	244	263	20	2.9	.4
13	8	3.4			432	275	220	241	17	2.9	.9
14	8	4.2			435	293	208	233	14	2.5	1.0
15	5.7	4.4			355	368	218	233	14	2.0	1.8
16	3.9	5.0			284	407	233	212	10	1.6	2.0
17	3.9	5.0			452	365	284	185	9	1.8	2.1
18	3.7	8			269	315	281	156	8	1.8	1.4
19	4.2	20	[a]10		174	275	281	133	7	1.8	2.5
20	3.2	12			198	296	249	112	5.7	1.5	2.9
21	2.7	9			244	358	220	94	5.2	1.4	3.7
22	2.1	7			176	418	215	82	4.4	1.2	5.2
23	2.1	6			133	505	215	67	4.4	1.2	5.7
24	2.1	4.7		18	112	605	212	61	3.7	1.2	7
25	2.0	3.4			104	645	205	56	3.7	.9	9
26	1.1	5.0			100	688	198	50	3.0	.8	10
27	1.0	5.5			128	688	200	44	2.9	.7	12
28	.7	5.2			269	735	202	44	2.1	.6	17
29	.7	5.5			376	788	208	96	2.1	.6	16
30	.9	5.2			321	788	208	81	2.1	.6	16
31	.9				293		223		2.3	.6	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	11	0.7	5.32	327
November	20	1.1	5.11	304
December			8.95	550
January			[a]20.0	1,230
February			[a]20.0	1,110
March	452		209	12,900
April	788	202	453	27,000
May	605	198	303	18,600
June	318	44	185	11,000
July	62	2.1	16.5	1,010
August	3.2	.6	1.91	117
September	17	.2	3.99	237
The year	788	.2	103	74,400

[a] Estimated.

WARMSPRINGS RESERVOIR NEAR RIVERSIDE, OREG.

LOCATION.—Tape gage in SE¼ sec. 8, T. 23 S., R. 37 E., on Malheur Piver 4 miles above junction with South Fork of Malheur River and 4 miles northwest of Riverside. Zero of gage is 3,327.00 feet above mean sea level.

RECORDS AVAILABLE.—January 1920 to September 1933.

EXTREMES.—Maximum contents during year, 130,300 acre-feet June 18 (gage height, 64.33 feet); minimum, 62,460 acre-feet Oct. 12 (gage height 43.82 feet).

1920–33: Maximum contents, 177,900 acre-feet May 19, 1922 (gage height, 75.75 feet); no storage Sept. 18 to Nov. 1, 1929.

REMARKS.—Records fair. Reservoir stores water for Warmsprings Irrigation District, which embraces 31,618 acres of irrigable land on either side of Malheur River, extending from the mouth of canyon above Vale to Ontario. Reservoir completed in November 1919; capacity increased in 1930 to 190,000 acre-feet at gage height 79.0 feet. Records furnished by State engineer.

Monthly stage and contents, 1932–33

Date	Gage height	Contents	Change in contents during month	Date	Gage height	Contents	Change in contents during month
	Feet	*Acre-feet*	*Acre-feet*		*Feet*	*Acre-feet*	*Acre-feet*
Sept. 30	43.89	62,670	----------	May 31	63.98	128,900	+15,900
Oct. 31	43.97	62,910	+240	June 30	63.01	125,000	−3,900
Nov. 30	44.96	65,880	+2,970	July 31	54.81	95,430	−29,570
Dec. 31	45.82	68,460	+2,580	Aug. 31	48.41	76,230	−19,200
Jan. 31	46.80	71,400	+2,940	Sept. 30	44.40	64,200	−12,030
Feb. 28	47.82	74,460	+3,060				
Mar. 31	51.20	84,600	+10,140	The year	----------	----------	+1,530
Apr. 30	59.99	113,000	+28,400				

MALHEUR RIVER BELOW WARMSPRINGS RESERVOIR, NEAR RIVERSIDE, OREG.

LOCATION.—Hook gage in SW¼ sec. 17, T. 23 S., R. 37 E., 1 mile below Warmsprings Dam, 3 miles above South Fork of Malheur River, and 4 miles northwest of Riverside.

DRAINAGE AREA.—1,100 square miles.

RECORDS AVAILABLE.—December 1914 to July 1917; March 1919 to September 1933. January 1906 to March 1907; December 1908 to September 1910 at Riverside, 4 miles downstream.

DISCHARGE.—Maximum during year, 496 second-feet July 6–17 (gage height, 4.84 feet); practically no flow Oct. 5 to Apr. 25.

1906–7, 1908–10, 1914–17, 1919–33: Maximum, 5,490 second-feet Mar. 2, 1910; practically no flow at times. Average, 15 years (1907–10, 1915–16, 1920–33), 175 second-feet.

REMARKS.—Records good. Diversions for irrigation above station. Flow completely regulated since November 1919 by operation of gates in Warmsprings Dam. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1	1.5	0	9.0	270	425	291	334
2	.5	0	9.0	270	425	291	334
3	.5	0	9.0	270	425	291	312
4	.5	0	9.0	270	425	287	312
5	0	0	9.0	270	425	258	291
6	0	0	9.0	270	448	227	283
7	0	0	9.0	270	496	227	275
8	0	0	9.0	270	496	212	258
9	0	0	9.0	250	496	175	258
10	0	0	9.0	212	496	175	258
11	0	0	9.0	212	496	175	250
12	0	0	37	181	496	188	231
13	0	0	115	162	496	227	231
14	0	0	115	162	496	283	220
15	0	0	118	162	496	334	202
16	0	0	118	150	496	334	202
17	0	0	118	125	472	334	202
18	0	0	118	125	425	379	202
19	0	0	118	125	402	334	202
20	0	0	118	136	379	334	95
21	0	0	118	172	379	334	60
22	0	0	118	181	379	334	9.6
23	0	0	142	205	379	334	1.0
24	0	0	162	235	379	334	1.0
25	0	0	162	275	356	334	0
26	0	5.0	185	291	312	334	0
27	0	9.0	212	356	291	334	0
28	0	9.0	212	379	291	334	0
29	0	9.0	212	379	291	334	0
30	0	9.0	212	402	291	334	0
31	0	-------	220	-------	291	334	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1.5	0.0	0.10	6
April	9.0	0	1.37	82
May	220	9.0	97.7	6,010
June	402	125	235	14,000
July	496	291	415	25,500
August	379	175	291	17,900
September	334	0	167	9,940
The period	496	0	101	73,400

NOTE.—Practically no flow during months omitted.

MALHEUR RIVER NEAR HOPE, OREG.

LOCATION.—Water-stage recorder in SW¼ sec. 5, T. 19 S., R. 43 E., half a mile above intake of Vines Canal and 6½ miles west of Hope.

RECORDS AVAILABLE.—May 1919 to September 1933; incomplete prior to May 1926.

DISCHARGE.—Maximum during year, 859 second-feet Apr. 5 (gage height, 2.87 feet); minimum, 24 second-feet Oct. 11 (gage height, 0.61 foot).

1919–33: Maximum, 8,100 second-feet Feb. 5, 1925; minimum, 3.5 second-feet Sept. 2, 1919 (gage height, 0.02 foot). Average, 10 years (1922–25, 1926–33), 236 second-feet.

The maximum known floods were those in March 1894 and March 1910.

REMARKS.—Records good except those estimated in April, May, and September, which are fair, and those estimated for other periods, which are poor. Several small diversions upstream. Flow regulated to a large extent by storage in Warmsprings Reservoir. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	60	71	------		234	a 590	332	29[illegible]	150	230
2	68	61	70	------		242	a 475	365	30[illegible]	165	242
3	60	62	70	------		302	a 525	390	31[illegible]	180	246
4	48	65	70	------		455	405	400	298	177	212
5	36	69	70	------		460	370	410	29[illegible]	174	206
6	31	71	68	------		420	324	400	27[illegible]	159	206
7	54	73	54	------		435	294	380	28[illegible]	135	189
8	31	77	48	------		405	274	355	32[illegible]	120	189
9	27	82		------		319	258	355	32[illegible]	115	177
10	25	82		------		262	242	360	314	102	168
11	26	80		------		223	212	332	314	90	
12	33	77		------	a 260	223	186	302	30[illegible]	88	
13	34	74		------		246	156	278	30[illegible]	73	
14	37	71		------		242	162	216	310	79	
15	38	76		------		274	206	192	319	87	a 144
16	53	79		------		319	216	195	32[illegible]	150	
17	48	79		------		332	230	174	33[illegible]	174	
18	48	77		------		250	238	150	33[illegible]	183	
19	49	94		------		216	230	132	28[illegible]	234	
20	50	90	a 53	------		195	223	100	254	177	120
21	52	84		------		209	209	90	212	174	120
22	58	80		------			206	80	212	189	108
23	59	79		64			202	77	212	189	94
24	61	76		------			212	74	223	195	87
25	61	74		------	147		234	80	242	195	85
26	60	82		------	132	a 450	230	120	21[illegible]	202	87
27	60	74		------	141		238	141	174	195	87
28	61	74		------	177		310	195	14[illegible]	195	85
29	60	74		------	250		306	294	141	209	84
30	59	73		------	282		306	294	14[illegible]	212	84
31	59	------		------	262	------	298	------	15[illegible]	223	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	68	25	48.8	3,000
November	94	60	75.6	4,500
December	----------	----------	56.1	3,450
January	----------	----------	a 80	4,920
February	----------	----------	a 75	4,170
March	----------	----------	246	15,100
April	----------	195	344	20,500
May	590	156	276	17,000
June	410	74	242	14,400
July	332	141	264	16,200
August	234	73	161	9,900
September	246	84	147	8,750
The year	----------	25	168	122,000

a Estimated.

MALHEUR RIVER BELOW NEVADA DAM, NEAR VALE, ORE.

LOCATION.—Water-stage recorder in SW¼ sec. 21, T. 18 S., R. 45 E., 300 feet below Nevada Dam and headgate of Nevada Canal and 1½ miles below Vale.

RECORDS AVAILABLE.—May 1926 to September 1933. March 1890 to September 1891, January 1895 to July 1897, May 1903 to March 1907, May 1908 to October 1914, and March to September 1919 at station 1½ miles upstream.

DISCHARGE.—Maximum during year, 776 second-feet Apr. 4 (gage height, 3.27 feet); minimum (estimated), 0.5 second-foot Oct. 1–10.

1890–91, 1895–97, 1903–7, 1908–14, 1919, 1926–33: Maximum, 22,800 second-feet Mar. 2, 1910 (gage height, 19.5 feet); no flow Oct. 1 to Nov. 16 1931, June 1 to Nov. 24, 1932.

REMARKS.—Records good except those estimated, which are poor. Several diversions for irrigation above gage. Flow regulated by storage in Warmsprings Reservoir. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Sept.
1		70	78	97	91	a 200	341	304	2	
2		73	75	94	88	228	341	415	2	
3		73	75	102		427	415	497	12	
4		73	70	105		484	596	385	26	
5	a 0.5	75	73	102		415	638	314	33	
6		80	58	105		336	568	257	58	
7		83	52	115		336	556	214	33	
8			36	122		490	516	206	16	
9				115		403	a 434	206	19	
10	10			115		277	352	171		a 7
11	26	a 85		108		358	282	132	a 30	
12	26		a 36	91		363	257	56		
13	30			97		617	252	22	52	
14	30			86		421	238	7	40	
15	31	83		80	a 80	319	233	12	20	
16	44	a 86		80		277	262	50	9	
17	52	a 86	50	83		415	325	73	6	
18	50	a 84	52	58		433	243	97	4	
19		97	61	56		391	179	52	4	
20		108	61	58		330	108	26	4	7
21		94	56	58		319	105	14	6	a 7
22		94	61	63		314	132	9	6	a 8
23		83	63	68		267	126	8	6	a 8
24	a 66	83	63	78		272	159	3	6	a 9
25		80	66	80		196	167	2	6	9
26		88	70	97		188	210	1	6	9
27		86	75	86		192	196	2	6	8
28		86	80	91		214	155	7	6	7
29		80	91	80	-------	368	201	14	7	7
30	70	80	94	88	-------	421	272	3	7	7
31	70	-------	94	83	-------	380	-------	3	-------	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	-------	-------	37.7	2,320
November	108	70	84.0	5,000
December	94	-------	59.4	3,650
January	122	56	88.4	5,440
February	-------	-------	80.7	4,480
March	617	188	344	21,200
April	638	105	295	17,600
May	497	1	115	7,070
June	-------	2	16.4	976
July	-------	-------	a 7.0	430
August	-------	-------	a 7.0	430
September	-------	-------	7.3	434
The year	638	-------	95.2	69,000

a Estimated.

NORTH FORK OF MALHEUR RIVER NEAR BEULAH, OREG.

LOCATION.—Water-stage recorder in SE¼ sec. 22, T. 19 S., R. 37 E., 1 mile below Beulah and 14 miles north of Juntura.

RECORDS AVAILABLE.—June 1926 to September 1933. March 1909 to June 1912; November 1913 to July 1914 at station 6 miles downstream.

DISCHARGE.—Maximum during year, 636 second-feet Apr. 4 (gage height, 4.00 feet); minimum, 14 second-feet Aug. 21 (gage height, 0.56 foot).

1909–12, 1913–14, 1926–33: Maximum, 5,910 second-feet Mar. 20, 1910; minimum, 5 second-feet Dec. 28, 1910, Jan. 26, 27, 1911.

REMARKS.—Records good except those estimated for July, August, and September, which are fair, and those estimated for October to March, which are poor. Small diversions for irrigation above station; practically entire summer flow is diverted below station and above Juntura. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29		49			156	432	370	89		24
2	30		48			224	498	358	82		23
3	30		47			336	382	370	75		23
4	30		47			347	370	358	72		22
5	30		43			282	358	358	67	a 22	21
6	30		40			314	314	314	54		21
7	a 29	a 44	38			274	292	303	40		22
8	28		25			200	a 271	282	38	19	22
9						160	250	303	36	20	23
10						148	230	282	34	20	23
11						167	208	272	40	18	24
12						200	200	253	42	18	26
13						190	192	240	40	18	26
14		52				224	200	244	46	19	
15		a 52			a 150	265	212	230	46	18	
16		a 53				278	232	208	42	16	a 25
17		a 49				228	240	187	32	18	
18		65				194	238	172	33	19	
19		79				189	220	151	30	18	
20	a 27	65	a 36			224	202	122	30	16	24
21		60				259	206	113	28	15	24
22		57				314	218	104	28	16	24
23		55		58		358	222	96		17	25
24		49				406	224	92		18	26
25		45				458	234	93		17	30
26		55				458	259	89	a 25	18	31
27		53				486	278	95		16	31
28		51			200	552	280	133		17	30
29		52			185	566	282	109		17	28
30		50			154	552	303	97		17	29
31					147		347			20	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October			27.6	1,700
November	79		50.5	3,000
December			37.6	2,310
January			a 65	4,000
February			a 60	3,330
March			153	9,410
April	566	148	300	17,900
May	498	192	271	16,700
June	370	89	213	12,700
July	89		40.3	2,480
August		15	18.7	1,150
September	31	21	25.1	1,490
The year	566		115	76,200

a Estimated.

PAYETTE RIVER BASIN

SOUTH FORK OF PAYETTE RIVER NEAR GARDEN VALLEY, IDAHO

LOCATION.—Staff gage in sec. 1, T. 8 N., R. 4 E., at Garden Valley ranger station, 300 feet above mouth of Station Creek, 4¾ miles above mouth of Middle Fork of Payette River, and 5 miles southeast of Garden Valley.

DRAINAGE AREA.—779 square miles.

RECORDS AVAILABLE.—May 1921 to September 1933.

DISCHARGE.—Maximum during year, 7,880 second-feet June 10 (gage height, 6.75 feet); minimum, 273 second-feet Dec. 6–8 (gage height, 1.30 feet).

1921–33: Maximum, 10,600 second-feet May 26, 1928 (gage height, 8.0 feet); minimum, 230 second-feet Nov. 22, 23, 1929.

REMARKS.—Records good except those estimated, which are fair. Result of discharge measurement Jan. 17. Practically no diversions above station. Since Nov. 2, 1930, flow has been regulated by operation of gates in Deadwood Dam on Deadwood River. Gage-height record furnished by U.S. Forest Service.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a 389	426	a 346				514	2,030	5,120	2,150	1,400	1,460
2	a 380	a 426	340				545	a1,870	5,120	2,030	1,400	1,400
3	371	426	340		a 300		680	a1,720	5,120	2,030	1,460	1,400
4	371	a 426	a 330				825	1,560	5,120	2,030	1,250	a1,460
5	a 371	426	320				715	1,350	a4,760	2,030	1,250	1,510
6	371	426	273				715	1,250	4,400	1,910	1,250	a1,540
7	371	426	a 273	a 750			545	1,200	4,400	1,790	1,200	1,560
8	a 378	426	273				545	1,160	5,490	1,790	1,160	1,560
9	a 384	a 426	a 278				545	1,060	5,680	1,680	1,160	1,560
10	a 391	a 426	282		a 280		514	1,020	7,460	1,680	1,160	a1,480
11	398	426	a 700				455	1,020	6,850	1,510	a1,180	1,400
12	a 398	398					484	a1,020	6,650	1,460	1,200	a1,480
13	a 398	398	a 850				545	1,020	a6,850	1,350	1,250	1,560
14	a 398	398		a 400			610	1,020	7,050	1,300	1,200	a1,560
15	a 398	a 412		a 375		a 350	645	a1,290	7,050	1 250	1,200	1,560
16	a 398	426	a1,250	a 350			750	1,560	7,250	1,250	1,300	1,560
17	a 398	a 412		296		371	750	1,560	6,650	1,160	a1,300	1,460
18	a 398	398					715	1,560	a5,620	1,510	1,300	a1,440
19	a 398	398	a 750				850	a1,560	4,580	1,400	a1,280	a1,420
20	a 398	398					825	1,560	3,890	1,790	1,250	1,400
21	a 398	371	a 350			a 370	940	1,680	3,720	1,790	1,200	1,400
22	a 398	a 361			a 300		1,350	1,910	3,560	a1,540	1,300	a1,400
23	a 398	351					1,300	2,030	3,400	1,300	1,300	1,400
24	a 398	a 351	a 750	a 300			1,510	a2,160	3,090	940	1,250	a1 430
25	a 398	a 351				a 400	1,910	2,280	3,090	1,250	1,250	1,460
26	398	351					a1,970	a2,680	2,800	1,250	1,350	1,160
27	a 398	351	a 700			426	2,030	3,090	2,530	a1,320	1,350	455
28	a 398	351				426	2,150	2,940	2,530	1,400	1,350	a 440
29	398	a 351			-------	426	2,030	3,090	a2,400	1,400	a1,380	426
30	426	351	a 750		-------	426	2,030	3,720	2,280	a1,400	1,400	398
31	426	-------			-------	484	-------	4,400	-------	1,400	1,460	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	426	371	393	24,200
November	426	351	395	23,500
December	----------	273	647	39,800
January	----------	----------	496	30,500
February	----------	----------	293	16,300
March	484	----------	352	21,600
April	2,150	455	996	59,300
May	4,400	1,020	1,850	114,000
June	7,460	2,280	4,820	287,000
July	2,150	940	1,550	95,300
August	1,460	1,160	1,280	78,700
September	1,560	398	1,320	78,600
The year	7,460	273	1,200	869,000

a Estimated or interpolated.

SOUTH FORK OF PAYETTE RIVER NEAR BANKS, IDAHO

LOCATION.—Water-stage recorder in sec. 28, T. 9 N., R. 3 E., 1 mile above junction with North Fork of Payette River and 1½ miles northeast of Banks. Zero of gage is 2,812.00 feet above mean sea level.

DRAINAGE AREA.—1,200 square miles.

RECORDS AVAILABLE.—August 1921 to September 1933.

DISCHARGE.—Maximum during 1932, 8,340 second-feet May 14 (gage height, 8.53 feet); minimum, 282 second-feet Nov. 22 (gage height, 0.08 foot).

Maximum during 1933, 9,420 second-feet June 10 (gage height 9.43 feet); minimum, 342 second-feet Dec. 9, 10 (gage height, 0.18 foot).

1921–33: Maximum, 13,800 second-feet May 17, 1927 (gage height, 10.6 feet, from high water marks on staff gage); minimum, 282 second-feet Nov. 22, 1931 (gage height, 0.08 foot). Slightly lower discharge may have occurred during winters following unusually cold periods.

REMARKS.—Records good except those estimated, which are fair. Small diversions only for irrigation above station. Since Nov. 2, 1930, flow has been regulated by operation of gates in Deadwood Dam on Deadwood River.

Discharge, in second-feet, 1931–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	860	404				585	1,450	3,540	3,640	a 3,770	1,370	1,520
2	860	404				540	2,040	4,190	3,540	a 3,510	1,230	1,560
3	724	399				505	2,160	4,300	3,540	a 3,250	1,160	1,560
4	485	394				444	2,040	4,300	3,970	a 3,000	1,120	1,560
5	412	394				462	1,920	4,520	4,410	a 2,740	1,120	1,560
6	458	390				480	1,680	4,630	4,410	a 2,480	1,600	1,600
7	462	394			a 350	466	1,600	4,860	4,190	a 2,220	2,300	1,680
8	440	404				466	1,560	5,100	4,080	1,960	958	1,600
9	426	435				490	1,560	5,340	4,080	1,880	1,120	1,680
10	422	422				505	1,680	5,820	4,190	1,840	1,160	1,680
11	399	394				500	2,080	6,300	4,520	1,760	1,680	1,720
12	362	318				485	2,840	6,660	5,100	1,760	1,410	1,680
13	362	330				500	3,440	7,260	5,700	1,680	1,760	1,680
14	366	399				550	4,080	8,100	6,060	1,920	1,480	1,640
15	370	430			362	560	3,750	7,500	6,300	1,760	1,560	1,480
16	366	430	a 350	a 350	382	580	3,640	6,540	6,780	1,600	1,600	1,680
17	358	408			399	636	3,240	6,300	6,540	1,520	1,560	1,680
18	354	448			386	925	2,940	6,540	5,940	1,450	1,600	1,640
19	354	422			382	3,640	2,940	6,900	5,580	1,560	1,600	1,640
20	350	408			404	2,840	2,940	7,020	5,460	1,680	1,600	1,600
21	354	390			422	1,760	2,570	7,500	5,220	1,480	1,600	1,600
22	394	334			408	1,410	2,390	7,260	5,220	1,340	1,480	1,560
23	540				390	1,160	2,210	6,180	5,580	1,260	1,560	1,450
24	525				390	1,160	2,080	5,340	5,580	1,230	1,600	1,410
25	417				390	1,200	2,080	4,860	a 5,320	1,160	1,680	1,160
26	444	a 350			412	1,060	2,480	4,410	a 5,060	1,120	1,520	590
27	426				448	958	3,040	3,970	a 4,800	1,120	1,640	520
28	412				545	1,300	3,240	3,750	a 4,550	1,120	1,640	505
29	422				610	1,560	3,340	3,860	a 4,290	1,090	1,480	495
30	422				------	1,340	3,340	3,860	a 4,030	1,200	1,560	490
31	408	------			------	1,230	------	3,750	--------	1,340	1,520	------

a Estimated or interpolated.

Discharge, in second-feet, of South Fork of Payette River near Banks, Idaho, 1931–33—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1932–33												
1	485	500	530	990	444	471	925	3,240	6,780	2.570	1,520	1,480
2	485	510	530	1,060	435	462	990	2,940	6,900	2.480	1,520	1,480
3	480	520	530	990	422	476	1,370	2,660	7,140	2.390	1,520	1,480
4	480	500	510	925	404	471	1,680	2,570	7,020	2.300	1,370	1,560
5	480	545	476	958		453	1,520	2,570	6,300	2.210	1,340	1,560
6	485	685	458	958		458	1,410	2,390	6,180	2.210	1,300	1,560
7	515	641	399	958	[a]400	471	1,260	2,300	6,060	2.080	1,300	1,600
8	540	570	386	990		476	1,090	2,160	5,940	2.040	1,260	1,640
9	525	718	342	990		462	958	1,960	7,620	2.000	1,260	1,520
10	530	630	378	990		476	892	1,840	9,060	1.920	1,260	1,520
11	520	520	740	958		500	830	1,800	8,220	1.800	1,340	1,480
12	520	545		925		535	830	1,800	7,980	1.680	1,340	1,520
13	500	565	[a]1,000	958	[a]450	560	830	1,880	8,100	1.600	1,340	1,600
14	505	555		565		550	892	2,080	8,100	1.520	1,300	1,600
15	515	555		476		555	1,090	2,480	7,980	1.480	1,300	1,640
16	535	570	[a]1,400	444		595	1,410	2,840	7,860	1.410	1,410	1,640
17	585	620		399	[a]500	630	1,520	2,840	7,260	1.370	1,410	1,560
18	550	630		440		625	1,410	2,940	6,300	1.680	1,410	1,520
19	525	610	[a]900	490		615	1,480	[a]2,940	5,460	1.600	1,450	1,520
20	515	580		490	[a]550	630	1,800	[a]2,940	4,860	1.680	1,340	1,520
21	515	565	[a]500	485		615	1,920	2,940	4,410	1.920	1,300	1,480
22	520	560		490	560	575	2,080	3,240	4,300	1.520	1,370	1,480
23	525	490		466	550	565	2,570	3,140	4,080	1.450	1,370	1,480
24	520	440	[a]900	462	510	545	2,940	3,340	3,750	1.230	1,340	1,480
25	500	535		462	480	545	3,340	3,640	3,540	1.370	1,340	1,600
26	525	550	800	448	490	565	3,540	4,300	3,340	1.370	1,410	1,340
27	540	550	830	448	505	615	4,080	4,740	3,140	1.370	1,410	620
28	525	545	830	435	490	663	4,410	4,520	2,940	1.520	1,410	545
29	500	535	830	444	------	740	4,740	4,520	2,940	1.480	1,410	520
30	500	530	1,020	453	------	770	4,190	5,220	2,750	1.450	1,480	625
31	485	------	990	453	------	800	------	6,180	------	1 520	1,480	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
1931–32				
October	860	350	450	27,700
November	448	318	385	22,900
December	------	------	350	21,500
January	------	------	350	21,500
February	610	------	387	22,300
March	3,640	444	977	60,100
April	4,080	1,450	2,540	151,000
May	8,100	3,540	5,500	338,000
June	6,780	3,540	4,920	293,000
July	3,770	1,090	1,830	113,000
August	2,300	958	1,490	91,600
September	1,720	490	1,410	83,900
The year	8,100	318	1,720	1,250,000
1932–33				
October	585	480	514	31,600
November	718	440	562	33,400
December	------	342	796	48,900
January	1,060	399	677	41,600
February	------	------	468	26,000
March	800	453	564	34,700
April	4,740	830	1,930	115,000
May	6,180	1,800	3,060	188,000
June	9,060	2,750	5,880	350,000
July	2,570	1,230	1,750	108,000
August	1,520	1,260	1,370	84,200
September	1,640	520	1,410	83,900
The year	9,060	342	1,580	1,150,000

[a] Estimated or interpolated.

NOTE.—Records for year ending Sept. 30, 1932, supersede those published in Water-Supply Paper 738.

PAYETTE RIVER NEAR HORSESHOE BEND, IDAHO

LOCATION.—Water-stage recorder 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 northeast of Horseshoe Bend.

DRAINAGE AREA.—2,230 miles.

RECORDS AVAILABLE.—February 1906 to September 1916; July 1919 to September 1933. Prior to November 1912 at old site 2 miles upstream in sec. 2.

DISCHARGE.—Maximum during year, 18,900 second-feet June 13 (gage height, 8.91 feet); minimum, 432 second-feet Dec. 10 (gage height, 0.43 foot).

1906–16, 1919–33: Maximum, 22,100 second-feet June 9, 1921 (gage height, 9.57 feet); minimum, 365 second-feet Dec. 18, 1924 (gage height, 0.30 foot).

REMARKS.—Records excellent except those for December to February, which are good, and those estimated, which are fair. Flow regulated during spring and summer by storage in Payette Lake, Lake Fork, and Deadwood Reservoirs. Several irrigation diversions from tributaries above station. Gage-height record furnished by Idaho Power Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	670	740	846		670	820	1,460	8,040	11,300	3,680	1,850	1,790
2	670	780	846		658	828	1,540	6,880	12,200	3,320	1,850	1,730
3	664	788	846		658	854	1,910	6,440	12,800	3,160	1,910	1,730
4	658	788	828		658	846	2,310	6,020	13,400	2,960	1,790	1,790
5	684	862	780	[a]1,200		804	2,240	5,920	13,100	2,910	1,730	1,790
6	684	1,140	726			780	2,240	5,500	13,100	2,750	1,790	1,790
7	719	1,270	594		[a]650	780	2,040	5,100	13,100	2,600	1,730	1,850
8	764	1,180	545			796	1,850	4,800	12,800	2,520	1,730	1,790
9	772	1,240	469			788	1,710	4,420	15,000	2,460	1,720	1,730
10	756	1,180	474			804	1,600	3,950	17,800	2,380	1,720	1,710
11	748	986	705	1,180		837	1,540	3,680	17,100	2,240	1,790	1,710
12	780	914	1,110	1,170		871	1,540	3,590	18,200	2,040	1,790	1,680
13	740	959	1,240	1,170	[a]700	932	1,540	3,590	18,500	2,040	1,790	1,730
14	756	959	1,270	871		905	1,650	3,860	17,800	1,910	1,730	1,730
15	756	941	[a]1,400	712		914	1,910	4,420	17,100	1,850	1,710	1,790
16	796	941		691	764	968	2,310	4,900	16,700	1,730	1,790	1,790
17	914	1,050	[a]1,600	628	846	1,060	2,450	5,200	15,700	1,660	1,790	1,700
18	968	1,100		677	880	1,030	2,450	5,300	14,100	1,850	1,790	1,670
19	914	1,120		764	871	1,020	2,600	5,100	12,500	1,850	1,850	1,670
20	837	1,080	1,360	691	846	1,020	2,830	5,000	11,300	1,850	1,730	1,660
21	804	1,030	959	698	854	1,020		5,200	9,880	2,100	1,630	1,640
22	804	995	733	740	846	968	[a]4,500	5,500	8,540	1,910	1,720	1,630
23	812	905	1,200	719	837	941		5,500	7,800	1,850	1,710	1,630
24	804	772	[a]1,200	712	812	923	6,230	5,710	7,100	1,670	1,670	1,650
25	772	837		712	772	905	7,100	6,230	6,660	1,720	1,680	1,730
26	780	888		705	788	941	7,560	7,100	6,020	1,790	1,730	1,530
27	804	888	[a]1,000	698	812	1,010	9,060	7,800	5,600	1,730	1,730	923
28	796	888		664	820	1,080	9,600	7,800	5,200	1,850	1,730	772
29	788	871		677	------	1,200	10,200	8,040	4,900	1,850	1,720	756
30	764	854	[a]1,200	677	------	1,250	9,880	9,060	4,140	1,790	1,790	780
31	764	------		677	------	1,300	------	10,200	------	1,850	1,790	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	968	658	772	47,500
November	1,270	740	965	57,400
December	----------	469	1,040	64,000
January	----------	628	911	56,000
February	880	----------	743	41,300
March	1,300	780	942	57,900
April	10,200	1,460	3,760	224,000
May	10,200	3,590	5,800	357,000
June	18,500	4,140	12,000	714,000
July	3,680	1,660	2,190	135,000
August	1,910	1,630	1,760	108,000
September	1,850	756	1,600	95,200
The year	18,500	469	2,700	1,960,000

[a] Estimated.

PAYETTE RIVER NEAR EMMETT, IDAHO

LOCATION.—Water-stage recorder in sec. 22, T. 7 N., R. 1 W., three-eighths of a mile below Black Canyon Dam and 5 miles northeast of Emmett.

RECORDS AVAILABLE.—June 1925 to September 1933.

DISCHARGE.—Maximum during year, 20,700 second-feet June 10 (gage height, 12.50 feet); minimum, 22 second-feet Dec. 9 (gage height, 1.26 feet).

1925–33: Maximum, 22,000 second-feet May 27, 1928 (gage height, 12.75 feet); minimum, 6.4 second-feet Feb. 21, 1932 (gage height, 1.01 feet).

REMARKS.—Records excellent except those estimated, Feb. 9–14, which are fair. Diversions for irrigation above station. Flow affected at times by operation of gates in Black Canyon Dam and by storage of water in reservoirs upstream. Gage-height record furnished by U.S. Bureau of Reclamation.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	432	950	1,160	1,130	738	985	2,220	8,960	12,400	3,340	1,450	1,450
2	425	987	1,040	1,300	746	1,160	2,280	7,480	12,900	3,200	1,500	1,450
3	425	865	1,100	1,300	746	1,550	2,720	7,080	13,400	2,990	1,550	1,400
4	425	865	1,140	1,190	730	1,070	2,920	6,500	13,400	2,720	1,500	1,400
5	432	864	1,080	1,170	698	994	2,320	6,310	13,900	2,600	1,400	1,400
6	418	865	1,030	1,250	714	967	2,400	5,760	13,700	2,530	1,400	1,400
7	418	865	946	1,250	738	868	2,080	5,400	13,700	2,280	1,400	1,400
8	425	938	735	1,300	738	1,000	1,350	4,890	13,400	2,220	1,400	1,400
9	462	1,300	463	1,300		1,050	1,350	4,560	15,700	2,160	1,400	1,350
10	485	1,300	698	1,300		1,070	1,350	4,080	19,300	2,100	1,400	1,350
11	485	1,250	698	1,250	650	1,190	1,400	3,780	18,400	1,930	1,400	1,400
12	500	1,250	928	1,250		1,300	1,550	3,630	19,300	1,820	1,400	1,450
13	538	1,180	1,050	1,250		1,550	1,710	3,630	19,500	1,600	1,400	1,450
14	594	1,300	1,080	1,210		1,450	1,820	3,780	18,700	1,600	1,400	1,450
15	658	1,240	940	850	850	1,400	2,160	4,400	18,100	1,550	1,400	1,400
16	714	1,300	1,290	714	842	1,500	2,660	5,060	17,600	1,550	1,400	1,450
17	895	1,350	1,450	682	826	2,160	2,860	5,400	16,500	1,500	1,350	1,450
18	886	1,300	1,550	626	859	1,930	2,790	5,400	14,700	1,450	1,350	1,450
19	967	1,350	1,600	754	886	1,580	2,920	5,060	13,200	1,450	1,350	1,450
20	1,000	1,350	1,550	706	886	1,710	3,410	4,890	11,500	1,450	1,400	1,450
21	802	1,350	983	738	886	1,600	3,930	5,230	10,100	1,450	1,350	1,500
22	820	1,190	805	786	886	1,450	4,240	5,580	8,740	1,450	1,350	1,500
23	811	1,260	723	802	886	1,400	5,230	5,580	7,680	1,450	1,350	1,500
24	832	1,230	1,250	770	904	1,350	6,310	5,760	6,880	1,550	1,350	1,450
25	835	990	1,300	738	842	1,300	7,680	6,310	6,310	1,450	1,350	1,450
26	976	1,100	907	730	818	1,400	8,310	7,080	5,760	1,450	1,350	1,140
27	848	1,190	979	818	842	1,660	10,100	8,100	5,230	1,450	1,400	1,080
28	837	1,230	1,050	877	904	1,820	10,800	8,100	4,890	1,450	1,400	1,070
29	829	1,220	1,030	690	-------	2,100	11,700	8,310	4,720	1,450	1,400	1,130
30	811	1,220	1,020	738	-------	2,040	11,200	9,400	3,780	1,450	1,450	1,030
31	793	-------	1,200	738	-------	2,040	--------	11,000	--------	1,450	1,450	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,000	418	670	41,200
November	1,350	864	1,150	68,400
December	1,600	463	1,060	65,200
January	1,300	626	974	59,900
February	904	----------	781	43,400
March	2,160	868	1,440	88,500
April	11,700	1,350	4,130	246,000
May	11,000	3,630	6,020	370,000
June	19,500	3,780	12,400	738,000
July	3,340	1,450	1,870	115,000
August	1,550	1,350	1,400	86,100
September	1,500	1,030	1,380	82,100
The year	19,500	418	2,770	2,000,000

DEADWOOD RIVER AT BEAVER CREEK RANGER STATION, NEAR LOWMAN, IDAHO

LOCATION.—Water-stage recorder in NE¼ sec. 17, T. 11 N., R. 7 E., immediately below Deadwood Dam, at lower end of Deadwood Basin, 900 feet above mouth of Wilson Creek, three-quarters of a mile below Beaver Creek ranger station, 18 miles (by river) above mouth of Deadwood River, and 15 miles north of Lowman.

DRAINAGE AREA.—108 square miles.

RECORDS AVAILABLE.—October 1926 to September 1933.

DISCHARGE.—Maximum during year, 1,140 second-feet Sept. 7 (gage height, 4.57 feet); minimum (estimated), 0.5 second-foot Oct. 16 to Dec. 9, Dec. 21, when gates in dam were closed.

1927–33: Maximum, 2,150 second-feet May 26, 1928 (gage height, 5.67 feet); minimum (estimated), 0.5 second-foot Oct. 16 to Dec. 9, Dec. 21, 1933, when gates in dam were closed.

REMARKS.—Records good except those estimated, which are fair. Flow regulated since Nov. 2, 1930, by operation of gates in Deadwood Dam. Gage-height record furnished by U.S. Bureau of Reclamation.

Discharge, in second-feet, 1932–33

Day	Oct.	Dec.	Jan.	June	July	Aug.	Sept.
1			439		20[illegible]	749	905
2			439		236	743	905
3			439		245	660	970
4			439		25[illegible]	615	1,040
5		a 0.5	439		254	615	1,040
6			439		25[illegible]	610	1,040
7			439		242	610	1,070
8	a 1		439		233	610	1,040
9		159	439		22[illegible]	605	970
10		545	439		218	660	1,000
11		545	439		20[illegible]	708	970
12		545	439		19[illegible]	703	1,000
13		545	184		192	692	1,070
14		751		a 1	183	692	1,070
15		875			178	692	1,070
16		875			173	785	1,000
17		805			33[illegible]	785	970
18		755			49[illegible]	779	970
19		430			49[illegible]	743	970
20		83			72[illegible]	681	970
21		a 0.5			68[illegible]	743	970
22		220	a 1		46[illegible]	767	970
23	a 0.5	439			39[illegible]	767	938
24		375			310	761	938
25		330			488	785	845
26		330			49[illegible]	845	273
27		330		11	60[illegible]	845	a 2
28		330		60	686	845	a 2
29		394		121	676	875	103
30		439		170	665	905	410
31		439			755	905	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October			a 0.74	46
November			a .50	30
December	875		3[illegible]	20,900
January	439		176	10,800
February			a 1.0	56
March			a 1.0	61
April			a 1.0	60
May			a 1.0	61
June	170		12.9	768
July	755	173	3[illegible]	23,400
August	905	605	735	45,200
September	1,070		8[illegible]	50,600
The year	1,070		2[illegible]	152,000

a Estimated.

DEADWOOD RIVER NEAR LOWMAN, IDAHO

LOCATION.—Water-stage recorder in sec. 29, T. 9 N., R. 7 E., 700 feet above mouth of river and 2½ miles west of Lowman.

DRAINAGE AREA.—201 square miles.

RECORDS AVAILABLE.—August 1921 to September 1933.

DISCHARGE.—Maximum during year, 1,370 second-feet June 9 (gage height, 3.40 feet); minimum, 41 second-feet Nov. 23 (gage height, 0.96 foot).

1921–33: Maximum, 4,230 second-feet May 9, 1928 (gage height, 5.17 feet); minimum, 31 second-feet Nov. 12, 1931.

REMARKS.—Records good except those estimated, Nov. 5, Dec. 7 to Jan. 17, Jan. 19 to Apr. 8, which are fair. Result of discharge measurement, Jan. 18. Flow regulated by storage in Deadwood Reservoir.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	56	54					383	1,170	455	796	1,000
2	43	54	55					336	1,200	466	804	990
3	43	53	55					310	1,180	472	739	1,030
4	44	50	52		60			306	1,080	466	651	1,110
5	45	60	47				80	314	980	461	651	1,090
6	47	94	45					293	950	455	645	1,110
7	53	69	45	490				281	901	434	645	1,140
8	53	66	45					255	865	423	651	1,120
9	53	92	70				79	233	1,240	408	651	1,030
10	53	65	590		45		74	216	1,240	393	672	1,020
11	53	48	590				72	210	1,140	373	732	1,030
12	52	69	590				71	213	1,110	350	724	1,080
13	52	65	590	340			69	237	1,080	336	717	1,140
14	52	59	730				78	277	1,020	327	717	1,130
15	52	56	920	60			100	359	970	314	755	1,130
16	54	65	920			60	136	413	901	306	820	1,060
17	58	62	880				144	423	788	378	820	1,010
18	53	69	810	57			129	413	680	591	829	1,010
19	52	66	610				134	388	597	566	829	1,000
20	52	61	180				174	413	547	755	732	1,000
21	52	58	50				188	477	506	838	763	1,000
22	53	55	180		55		223	523	466	541	829	980
23	55	42	490				293	518	439	547	838	980
24	52	52	450	60			341	572	408	364	838	990
25	52	72	380				383	658	378	578	856	930
26	59	63	380				418	788	345	572	910	523
27	58	61	380				477	820	327	624	910	74
28	58	56	380				547	780	345	724	920	65
29	54	54	410		-------		578	804	398	709	950	58
30	55	55	490		-------		489	960	428	732	1,010	314
31	50	-------	490		-------		-------	1,100	-------	796	1,000	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	59	43	51.8	3,190
November	94	42	61.6	3,670
December	920	45	386	23,700
January	----------	----------	235	14,400
February	----------	----------	52.9	2,940
March	----------	----------	60.0	3,690
April	578	----------	195	11,600
May	1,100	210	460	28,300
June	1,240	327	789	46,900
July	838	306	508	31,200
August	1,010	645	787	48,400
September	1,140	58	905	53,900
The year	1,240	42	376	272,000

PAYETTE LAKE AT LARDO, IDAHO

LOCATION.—Staff gage in sec. 8, T. 18 N., R. 3 E., at outlet of lake at Lardo. Zero of gage is 4,982.24 feet above mean sea level. Datum lowered 2 feet on Aug. 26, 1931.

DRAINAGE AREA.—131 square miles.

RECORDS AVAILABLE.—August 1921 to September 1933 (fragmentary).

EXTREMES.—Maximum stage recorded during year ending Sept. 30, 1933, 7.80 feet June 10; minimum, 1.56 feet Sept. 30.

1921–33: Maximum stage, 6.10 feet (former datum) June 21, 28, and July 5, 1930; minimum, 0.95 foot Oct. 3, 1931.

REMARKS.—No diversions above station. Water has been stored in Payette Lake since 1919 for irrigation use in Payette Valley 100 miles below. Gage-height record furnished by U.S. Forest Service.

Gage height, in feet, 1931–33

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931									
1									
2					3.36				
3						a 4.69	4.00		
4				1.73					
5									1.32
6						5.08			
7			0.87						
8						a 5.22			
9		0.45			3.85				
10	0.01								
11				1.92			3.10		
12				a 1.92					1.17
13						5.42			
14		.51	.92	a 2.00					
15							a 2.57		
16			1.22		a 4.16				
17	.12				a 4.16				
18				2.12			a 2.20		
19							a 2.10		1.07
20						5.10			
21		.67	1.40				a 1.87		
22									
23					3.16				
24	.32								
25				2.34			1.38		
26								a 1.65	1.02
27									
28		.82	1.54						
29					3.80	4.30		1.53	
30									
31	.37								

Gage height, in feet, of Payette Lake at Lardo, Idaho, 1931–33—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1												
2		1.52		2.82			3.90			6.46		
3	0.95											3.10
4									5.65			
5			1.92			3.55						
6					3.32						5.70	[a] 2.88
7		1.58						7.10				[a] 2.82
8												
9				2.86			4.26			7.20		
10	1.27											2.70
11									5.70			
12			1.95			3.60		[a] 6.55				
13					3.40						4.90	
14		1.66						6.75				
15												
16				2.90			4.88			7.60		
17		[a] 1.77										2.50
18							[a] 5.13		6.20			
19			2.20			3.80						
20					3.40			[a] 6.60				
21		1.86										
22										[a] 7.33		
23				2.90			5.75			7.30		
24	1.38											2.30
25									6.10			
26			2.48			[a] 3.80						
27					3.44						3.56	
28		1.92						5.75		[a] 6.72		
29												
30				3.32			6.50			6.40		
31												
1932–33												
1	2.15						3.56			6.65	[a] 6.09	2.70
2									[a] 6.50			[a] 2.60
3			2.50	3.06					[a] 6.60		5.78	2.50
4					3.56	3.56					[a] 5.64	
5		2.04						[a] 4.61			5.56	
6										[a] 7.20		2.30
7				3.10							5.38	2.25
8	1.80						3.58			7.35	5.30	[a] 2.16
9											5.17	2.10
10			2.59						7.80		5.05	2.00
11				3.20	3.56	3.52				[a] 7.30	4.95	
12		2.18								[a] 7.28	4.38	1.95
13								4.55		[a] 7.30		
14				3.20								1.85
15	1.74						3.56	[a] 4.41		7.40	4.35	
16											4.20	1.86
17			2.56								4.10	
18				3.26								1.85
19		2.38							6.40			
20				[a] 3.30		3.52		4.75				
21		[a] 2.38			3.54							1.75
22	1.85						3.68			7.10	3.68	
23									[a] 5.65			1.66
24			2.76						5.60			
25	[a] 1.90				3.58	3.55						1.65
26		2.40									3.20	
27												
28				3.52								
29	1.94					[a] 3.52	4.50	5.75				
30										[a] 6.28		[a] 1.56
31										6.30		

[a] Engineer's reading.

NOTE.—Regulation of storage for use in lower Payette River Valley effected by flashboards at outlet. Gage-height record for year ending Sept. 30, 1931, supersedes the record published in Water-Supply Paper 723, which is in error from Aug. 26 to Sept. 30, 1931.

NORTH FORK OF PAYETTE RIVER AT LARDO, IDAHO

LOCATION.—Water-stage recorder in sec. 8, T. 18 N., R. 3 E., a quarter of a mile below Lardo and outlet of Payette Lake.

DRAINAGE AREA.—131 square miles.

RECORDS AVAILABLE.—September 1908 to June 1917; May 1919 to September 1933.

DISCHARGE.—Maximum during year, 4,260 second-feet, June 10 (gage height, 7.5 feet); minimum, 1.5 second-feet Nov. 21 (gage height, 0.92 foot).

1908–17, 1919–33: Maximum, that of June 10, 1933; maximum gage height, 7.5 feet June 5, 1909, and June 10, 1933; minimum, 0.2 second-foot Nov. 5–8, 1931 (gage height, 0.71 foot).

REMARKS.—Records good except those estimated, which are fair. Stage-discharge relation affected by ice Dec. 6 to Jan. 20. Flow partly regulated by storage in Payette Lake. No diversions above station. Gage-height record furnished by U.S. Forest Service.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	3.9	2.5		[b] 51	[b] 47	40	562	2,380	18	273	164
2	95	3.9	2.5		[b] 52	[b] 46	[b] 41	557	2,580	20	313	169
3	91	3.9	2.5	[a] 8	52	[b] 46	[b] 41	520	2,780	25	376	164
4	82	3.9	2.4		49	45	[b] 42	490	2,990	36	372	152
5	78	3.9	2.9		[b] 48	[b] 44	[b] 43	490	2,990	57	358	149
6	74	3.9			[b] 46	[b] 44	[b] 44	470	2,880	86	329	146
7	75	3.9			[b] 44	[b] 43	[b] 44	450	2,780	102	354	137
8	74	3.8		[a] 10	43	[b] 42	45	430	2,680	114	390	122
9	72	3.0			[b] 42	[b] 41	[b] 45	412	3,210	114	399	114
10	69	2.5			41	[b] 41	[b] 45	381	4,260	116	404	110
11	66	2.4			41	40	[b] 45	358	3,650	114	394	104
12	64	2.1			[b] 43	[b] 41	[b] 45	399	3,650	64	345	97
13	60	2.1	[a] 3.0	[a] 12	[b] 45	[b] 41	[b] 45	386	3,540	33	329	91
14	57	2.0			[b] 47	[b] 42	[b] 45	394	3,430	30	354	86
15	56	1.7			49	[b] 42	45	460	3,430	27	368	88
16	27	1.8			[b] 49	[b] 43	[b] 47	546	3,320	26	329	82
17	6.7	1.9			[b] 49	[b] 43	[b] 49	579	[b] 3,020	27	273	78
18	5.0	2.0		[a] 14	[b] 49	[b] 44	[b] 51	602	[b] 2,730	44	229	75
19	4.8	2.1			[b] 49	[b] 44	[b] 53	602	2,430	240	243	72
20	4.1	1.9			[b] 49	45	[b] 55	590	2,240	243	265	68
21	4.1	1.7		15	49	45	[b] 57	596	2,000	240	226	62
22	4.1	1.7			[b] 49	45	59	626	1,820	226	240	59
23	4.1	1.8	[a] 4.0		[b] 49	[b] 45	[b] 116	710	1,680	233	301	56
24	4.1	1.9		[a] 30	[b] 49	[b] 45	[b] 172	775	1,540	247	277	55
25	4.1	2.3			49	45	[b] 229	875	1,420	247	258	54
26	4.1	2.5			[b] 49	[b] 48	[b] 44	[b] 286	1,090	1,250	251	240	52
27	4.1	2.5			[b] 49	[b] 48	[b] 43	[b] 342	1,330	841	247	223	49
28	3.9	2.3	[a] 6.0		[b] 50	[b] 47	[b] 42	399	1,460	61	226	210	47
29	3.9	2.4			[b] 50	------	41	485	1,540	31	261	194	46
30	3.9	2.3			[b] 50	------	[b] 41	552	1,770	20	242	183	44
31	3.9	------			[b] 51	------	[b] 40	------	2,050	------	265	175	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	95	3.9	37.8	2,320
November	3.9	1.7	2.60	155
December	----------	----------	3.67	226
January	51	----------	21.1	1,300
February	52	41	47.4	2,630
March	47	40	43.2	2,660
April	552	40	120	7,140
May	2,050	358	726	44,600
June	4,260	20	2,390	142,000
July	269	18	138	8,480
August	404	175	298	18,300
September	169	44	93.1	5,540
The year	4,260	----------	325	235,000

[a] Estimated.
[b] Interpolated.

LAKE FORK OF PAYETTE RIVER ABOVE RESERVOIR NEAR McCALL, IDAHO

LOCATION.—Staff gage in NW¼ sec. 8, T. 18 N., R. 4 E., three-quarters of a mile below power plant and 5 miles east of McCall.

RECORDS AVAILABLE.—May 1926 to September 1933 (fragmentary).

DISCHARGE.—Maximum during year, 2,520 second-feet June 9 (gage height, about 7.7 feet, from high-water mark); minimum, 14 second-feet Oct. 25, Sept. 2–4, 8–14 (gage height, 0.30 foot).

1926–33: Maximum, that of June 9, 1933; minimum, 7 second-feet Aug. 26–29 and Oct. 20, 1931.

REMARKS.—Records good below 1,000 second-feet; fair above. No records Oct. 1–24, Oct. 26 to Apr. 14. Discharge estimated June 9, interpolated Sept. 24–29. Some diurnal fluctuations at low stages by operation of power plant above station. No diversions for irrigation above station. Gage-height record furnished by Lake Irrigation District.

Discharge, in second-feet, 1932–33

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1			230	1,010	260	30	16
2			202	970	220	28	14
3			184	1,010	211	28	14
4			184	930	198	28	14
5			176	890	198	26	15
6			160	780	198	25	15
7			160	745	152	25	15
8			152	1,130	144	23	14
9			130	2,300	137	20	14
10			123	2,020	123	20	14
11			123	1,570	109	20	14
12			123	1,470	96	20	14
13			137	1,290	90	19	14
14			176	1,130	83	19	14
15		60	300	1,090	80	19	15
16		66	240	930	68	17	16
17		70	211	815	65	17	19
18		75	202	710	60	17	17
19		78	176	640	60	17	17
20		80	184	545	58	17	17
21		83	260	515	56	17	16
22		83	270	485	54	17	15
23		123	260	400	49	17	15
24		160	312	375	47	17	15
25	14	202	545	375	45	17	15
26		290	675	338	41	17	16
27		338	575	300	39	16	16
28		375	545	485	37	16	17
29		485	605	455	35	16	17
30		290	1,010	290	33	15	17
31			890		32	16	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April 15–30	485	60	179	5,680
May	1,010	123	307	18,900
June	2,300	290	866	51,500
July	260	32	97.2	5,980
August	30	15	19.9	1,220
September	19	14	15.4	916
The period				84,200

LAKE FORK RESERVOIR NEAR McCALL, IDAHO

LOCATION.—Staff gage in NW¼NW¼ sec. 13, T. 18 N., R. 3 E., 3 miles east of McCall. Zero of gage is at mean sea level.

RECORDS AVAILABLE.—April 1926 to September 1933.

EXTREMES.—Maximum contents during year, 16,720 acre-feet July 1 (gage height, 5,116.86 feet); probably no storage during fall and winter months.

1926–33: Maximum contents, 17,250 acre-feet June 3–5, 1930 (gage height, 5,117.2 feet); probably no storage during fall and winter.

REMARKS.—Contents estimated Sept. 5. Water stored in this reservoir is used for irrigation of 6,800 acres of land near Norwood. Elevation of gate sill of outlet is 5,097.0 feet. Gage-height record and table of contents furnished by Lake Irrigation District.

Contents, in acre-feet, 1932–33

Day	Oct.	June	July	Aug.	Sept.	Day	Oct.	June	July	Aug.	Sept.
1	1,898		16,720	9,379	1,727	16		14,770	14,460	4,600	1,126
2	1,873		16,700	9,000	1,678	17		14,310	14,030	4,359	1,126
3	1,861		16,690	8,838	1,617	18		13,850	13,770	4,080	1,126
4		14,620	16,660	8,433	1,557	19		13,390	13,430	3,801	1,115
5		14,770	16,630	8,163	1,497	20		13,850	13,130	3,615	1,094
6		14,770	16,550	7,777	1,444	21		14,310	12,850	3,372	1,073
7		14,460	16,470	7,525	1,391	22		14,770	12,550	3,129	1,063
8		15,080	16,330	7,147	1,338	23		15,000	12,270	2,887	1,052
9		16,630	16,160	6,895	1,285	24		15,230	11,940	2,736	1,042
10		16,700	15,930	6,535	1,232	25	1,788	15,390	11,660	2,455	1,042
11		15,620	15,700	6,186	1,168	26		15,540	11,340	2,315	1,031
12		15,080	15,450	5,954	1,211	27		15,700	11,040	2,105	1,031
13		15,080	15,160	5,587	1,179	28		16,100	10,670	1,934	1,031
14		14,920	14,920	5,288	1,147	29		16,440	10,360	1,861	1,031
15		14,920	14,620	4,917	1,147	30		16,550	10,100	1,812	1,031
						31			9,810	1,763	

LAKE IRRIGATION DISTRICT CANAL NEAR McCALL, IDAHO

LOCATION.—Staff gage in SW¼ sec. 13, T. 18 N., R. 3 E., 600 feet below head of canal, half a mile south of Lake Fork Reservoir, and 3 miles east of McCall.

RECORDS AVAILABLE.—May 1926 to September 1933, irrigation seasons only.

DISCHARGE.—Maximum during year (estimated), 120 second-feet June 28–30; no flow parts of days June 4, 25, and 27, and during nonirrigation season.

1926–33: Maximum, 126 second-feet May 27 to June 8, 1931 (gage height, 4.80 feet); no flow during nonirrigation seasons.

REMARKS.—Records for Oct. 25, June 11, 23, July 12 to Aug. 2, Sept. 7, 30, good; others fair. Flow is regulated at headgate of canal. No diversions between head of canal and station. Canal diverts water from right bank of Lake Fork of Payette River in SW¼ sec. 13, T. 18 N., R. 3 E., and is used for irrigation of 6,800 acres of land near McCall and Norwood, in the project of the Lake Irrigation District. Gage-height record furnished by water master for Lake Irrigation District.

Discharge, in second-feet, 1932–33

Day	Oct.	June	July	Aug.	Sept.	Day	Oct.	June	July	Aug.	Sept.
1		0		113		16			11e		10
2		0	119	e113		17		90	11e		
3		0				18			11e	100	
4		5			21	19		100	115		
5		15				20	8		115		
	9							107			
6			118			21			115		
7		40			e21	22			115		
8						23		e107	115	85	
9		60		110	21	24		107	114		11
10		50	117			25	e8	55	114		
11		e46				26		110	114		
12		55	e117			27		95	114	70	
13	8		116		10	28	8		114		
14		80	e116			29		120	113		
15			116			30			113	21	e11
						31			113		

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October			8.3	510
June		0	70.5	4,200
July		113	116	7,130
August	113		92.1	5,660
September			14.1	839

e Discharge based upon observations by engineers; flow other dates estimated from observer's reports.

WEISER RIVER BASIN

WEISER RIVER ABOVE CRANE CREEK, NEAR WEISER, IDAHO

LOCATION.—Water-stage recorder in sec. 10, T. 11 N., R. 4 W., 1 mile above mouth of Crane Creek and 9 miles northeast of Weiser.

DRAINAGE AREA.—1,160 square miles.

RECORDS AVAILABLE.—July 1920 to September 1933.

DISCHARGE.—Maximum during year, 6,660 second-feet Apr. 3 (gage height, 6.74 feet); minimum, 14 second-feet Dec. 9 (gage height, 0.72 foot).

1920–33: Maximum, about 14,000 second-feet Mar. 19, 1932 (gage height, about 10.8 feet, determined from high-water marks); minimum (estimated), 5 second-feet Aug. 11 to Sept. 10, 1931.

REMARKS.—Records good except those estimated, which are fair. Results of actual current meter measurements used Jan. 22, Feb. 22, Mar. 7. Numerous diversions for irrigation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	107	106				[a]3,900	3,470	3,230	554	40	16
2	23	109	160				4,380	3,150	3,230	494	45	16
3	24	112	154		[a]140		5,580	2,770	3,230	456	53	15
4	24	124	154			[a]180	5,940	2,480	3,230	405	57	15
5	23	131	146				4,550	2,550	2,920	390	57	15
6	22	150					4,040	2,410	2,700	319	55	15
7	30	193	[a]100			186	3,230	2,340	2,480	283	55	15
8	33	178					2,550	2,480	2,340	249	55	15
9	43	160	19			[a]190	1,940	2,000	3,150	232	49	15
10	48	160	85				1,820	1,760	3,710	197	43	15
11	49	150				[a]300	1,880	1,600	3,150	164	42	15
12	49	131		[a]140	[a]120		1,820	[b]1,630	2,840	151	43	16
13	55	131	[a]100				1,880	[b]1,670	2,700	117	40	16
14	60	134				[a]500	2,070	1,700	2,550	[c]91	39	16
15	60						2,200	1,940	2,410	[c]67	37	16
16	71	[a]140					2,200	2,550	2,140	43	32	16
17	85					[a]1,200	2,000	2,770	1,820	40	29	16
18	96	[a]200	[a]110				1,700	2,700	1,570	35	29	15
19	83					1,260	1,700	2,550	1,360	37	26	15
20	80	201			[a]140	1,310	1,880	2,340	1,160	35	26	16
21	80	189				1,360	2,070	2,270	1,030	37	25	16
22	83	178		139	160	1,280	2,270	2,270	926	45	23	26
23	88	171				1,130	2,620	2,270	826	49	22	40
24	98	154				1,220	2,770	2,270	725	53	20	42
25	98	143			[a]160	1,170	3,070	2,410	667	49	19	42
26	98	143	[a]120	[a]140		1,650	3,470	2,700	618	42	16	29
27	101	168				2,840	[a]3,800	2,840	560	37	16	43
28	101	168				3,390	[a]4,200	2,770	548	40	18	49
29	104	164					[a]4,500	2,700	646	43	18	49
30	104	160				[a]3,900	4,380	2,920	612	42	16	47
31	104							3,150		42	16	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	104	22	65.8	4,050
November		107	154	9,160
December	160	19	114	7,010
January			140	8,610
February			136	7,550
March			1,130	71,300
April	5,940	1,700	3,010	179,000
May	3,470	1,600	2,430	149,000
June	3,710	548	1,970	117,000
July	554	35	156	9,590
August	57	16	34.2	2,100
September	49	15	23.1	1,370
The year	5,940	15	783	566,000

[a]Estimated.
[b]Interpolated.

EAST FORK OF WEISER RIVER NEAR COUNCIL, IDAHO

LOCATION.—Water-stage recorder in sec. 31, T. 17 N., R. 2 E., near Squaw Creek ranger station, 9 miles northeast of Council, Idaho.

DRAINAGE AREA.—2.04 square miles.

RECORDS AVAILABLE.—September 1932 to September 1933. Discharge measurement only, 1931.

DISCHARGE.—Maximum, 75 second-feet June 9; maximum gage height, 4.11 feet June 9 (ice affected); minimum, not determined.

REMARKS.—Records fair except those estimated, Oct. 12 to Nov. 4, Nov. 6 to May 16, May 18 to June 3, June 5–8, which are poor. Discharge interpolated Sept. 6–10. Results of actual discharge measurements Nov. 5, May 17, June 4. Stream not regulated. No diversions above station.

Discharge, in second-feet, 1932–33

Day	Sept.	Oct.	Nov.	Dec.	Apr.	May	June	July	Aug.	Sept.
1	------	0.5						15	2.2	0.9
2	------	.4					25	14	2.0	.9
3	0.6	.4	0.8	0.6				14	1.9	.8
4	.7	.4					29	12	1.8	.8
5	.7	.4	.9					12	1.8	.8
6	.6	.4					35	10	1.7	.8
7	.6	.4						9.2	1.6	.8
8	.6	.4						8.6	1.6	.8
9	.6	.5				1.0	65	7.8	1.6	.8
10	.6	.4					57	7.0	1.5	.8
11	.6	.4	.8				55	6.5	1.4	.8
12	.6						59	6.0	1.4	.7
13	.5				0.5		61	5.6	1.3	.7
14	.5	.5					63	5.2	1.3	.8
15	.5						63	5.0	1.3	.9
16	.5						59	4.7	1.3	.8
17	.5					1.2	51	4.5	1.3	.8
18	.5						45	4.3	1.3	.8
19	.5			.5		1.5	43	4.0	1.3	.8
20	.5						38	3.8	1.3	.7
21	.5		.7				38	3.5	1.2	.7
22	.5					2.0	35	3.4	1.2	.7
23	.5						31	3.2	1.2	.7
24	.5	.8					29	3.1	1.1	.8
25	.5					4.0	26	2.8	1.1	.8
26	.5						24	2.7	1.1	.8
27	.5				1.0		22	2.5	1.1	.7
28	.5		.6				25	2.4	1.0	.7
29	.5					10	19	2.4	1.0	.7
30	.5						16	2.3	1.0	.7
31	------		------		------		------	2.3	1.0	------

Month	Discharge in second-feet				Run-off	
	Maximum	Minimum	Mean	Per square mile	Inches	Acre-feet
1932						
September 3–30	0.7	0.5	0.54	0.265	0.28	30
1932–33						
October	------	------	.63	.309	.36	39
November	------	------	e.74	.363	.40	44
December	------	------	e.52	.255	.29	32
January	------	------	e.50	.245	.28	31
February	------	------	e.50	.245	.26	28
March	------	------	e.50	.245	.28	31
April	------	------	e.60	.294	.33	36
May	------	------	e2.89	1.42	1.64	178
June	65	16	38.9	19.1	21.31	2,310
July	15	2.3	6.12	3.00	3.46	376
August	2.2	1.0	1.38	.676	.78	85
September	.9	.7	.78	.382	.43	46
The year	65	------	4.48	2.20	29.82	3,240

e Estimated.

LOST VALLEY RESERVOIR NEAR TAMARACK, IDAHO

LOCATION.—Staff gage in sec. 28, T. 19 N., R. 1 W., a short distance above outlet gates near left end of dam, 4 miles west of Tamarack, and 16 miles north of Council.

DRAINAGE AREA.—30 square miles.

RECORDS AVAILABLE.—May to September 1924; May 1926 to September 1933.

EXTREMES.—Maximum stage during year, 23.85 feet May 29; natural flow of creek passed through reservoir during a part of winter when gage was not read.

1924, 1926–33: Maximum stage, that of May 29, 1933; gage not read when reservoir was nearly empty.

REMARKS.—Stored water from this reservoir used for irrigation in Weiser Valley. Elevation of permanent spillway crest referred to present datum, which is 1.40 feet lower than that used in 1924, is 22.26 feet; insertion of temporary flashboards increases elevation of spillway crest to about 25.14 feet on gage. Prior to October 1929, elevation of spillway crest was 17.80 feet, present datum. Capacity of reservoir is about 11,000 acre-feet. Gage-height record furnished in part by Mesa Orchards Co. and water master for Weiser River.

Gage height, in feet, 1932–33

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.82								
2						23.77			
3					18.00	23.74			
4		11.45			18.48				
5							23.40		
6									
7									
8						23.20			14.00
9					19.80				13.95
10							23.22		
11						23.34			
12					20.05				
13									
14									
15							23.04	15.60	
16					21.95				
17									
18				8.20		23.75	22.70		
19								15.88	
20									
21					23.40				
22									
23									
24									
25									
26				12.00	23.76				
27						23.62			
28			4.20						
29					23.85				
30		10.75					20.50	14.66	
31							20.24		

LOST CREEK NEAR TAMARACK, IDAHO

LOCATION.—Water-stage recorder in sec. 28, T. 19 N., R. 1 W., a quarter of a mile below dam of Lost Valley Reservoir, 4 miles west of Tamarack, and 16 miles north of Council.

DRAINAGE AREA.—30 square miles.

RECORDS AVAILABLE.—January 1910 to August 1914; May 1920 to September 1921; May 1924 to September 1933.

DISCHARGE—Maximum during year, 262 second-feet May 27 (gage height, 2.84 feet); minimum (estimated), 0.2 second-foot Mar. 28 (gage height, 0.66 foot).

1910–14, 1920–21; 1924–33: Maximum, 688 second-feet May 17, 18, 1921 (gage height, 4.29 feet); practically no flow at times when gates in dam were closed.

REMARKS.—Records good except those estimated, Dec. 6 to Mar. 8, which are fair. Discharge interpolated Nov. 1–3. No diversions between gage and reservoir; practically entire flow diverted below station during irrigation season. Flow regulated by head gates at dam above. Gage-height record furnished in part by Mesa Orchard Co. and water master for Weiser River.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	16	14			8	4.5	15	243	31	81	24
2	16	16	14			8	4.3	15	237	30	81	24
3	17	15	14		10		4.5	18	233	30	80	24
4	17	15	14				4.3	40	227	30	80	23
5	17	15	14	12			4.5	60	209	25	78	23
6	17	15				7	4.7	61	189	20	78	23
7	17	15					4.7	60	169	21	77	23
8	17	15					4.8	60	147	20	78	21
9	17	15	14			7.2	4.8	60	143	20	78	18
10	17	15				7.2	5.2	61	149	20	78	17
11	16	15			9	7.2	5.5	60	111	21	77	17
12	16	15				7.2	5.5	60	68	21	75	17
13	16	15				7.2	5.7	60	68	21	75	17
14	16	15				7.2	6.0	61	68	21	75	17
15	16	15		11		6.9	6.2	64	66	36	69	17
16	16	15				6.9	6.4	74	66	45	56	17
17	16	15				6.9	6.7	97	66	45	56	17
18	16	15	13			6.9	4.2	137	46	49	56	17
19	16	15				6.7	2.4	158	28	65	53	17
20	16	15				6.7	2.5	167	27	64	41	18
21	16	15				6.7	2.5	174	28	64	41	18
22	16	14				6.7	2.6	179	27	64	41	18
23	16	14			8	6.7	2.8	189	28	62	41	18
24	16	14				6.4	2.9	197	28	62	40	18
25	16	14				6.4	3.1	209	29	62	40	18
26	16	14		10		6.4	8.4	224	29	62	39	19
27	16	14				6.4	14	237	30	62	39	19
28	16	14	12			4.7	14	259	31	64	39	19
29	16	14			-------	4.2	14	249	31	64	39	19
30	16	14			-------	4.2	15	240	31	75	29	19
31	16	-------			-------	4.3	-------	240	-------	83	24	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	17	16	16.3	1,000
November	16	14	14.8	881
December	----------	----------	13.2	812
January	----------	----------	10.9	670
February	----------	----------	8.8	489
March	----------	4.2	6.62	407
April	15	2.4	5.89	350
May	259	15	122	7,500
June	243	27	95.1	5,660
July	83	20	43.8	2,690
August	81	24	59.2	3,640
September	24	17	19.2	1,140
The year	259	2.4	34.9	25,200

MESA ORCHARDS CANAL NEAR MESA, IDAHO

LOCATION.—Staff gage in sec. 14, T. 15 N., R. 1 W., 1,700 feet above end of flume, 1½ miles northeast of Mesa, and 3 miles below head gates.

RECORDS AVAILABLE.—1924, 1928, 1930–33, irrigation seasons only.

DISCHARGE.—Maximum during year not known; no flow at some periods.

1924, 1928, 1930–33: Maximum discharge, 35 second-feet May 24, 25, 27, 28, 1924, July 11, 1933; no flow during nonirrigation season.

REMARKS.—Accuracy of records shown, fair. Because of lack of information concerning time of gate changes, flow on days of actual gage readings only furnished. Canal diverts from Middle Fork of Weiser River in SE¼NW¼ sec. 9, T. 15 N., R. 1 E., for irrigation on the Mesa Orchards and for domestic supply in the village of Mesa. Flow regulated by operation of gates in diversion dam and by waste gates in flume above gage. Gage-height record furnished by Mesa Orchards Co. and water master for Weiser River.

Discharge, in second-feet, 1932–33

Day	Oct.	June	July	Aug.	Sept.	Day	Oct.	June	July	Aug.	Sept.
1	14					16					
2				29		17			25	23	
3				28		18			34		
4						19		27	33	24	
5		12	23		18	20		27	32	23	
6			24	28		21				20	
7			24		17	22					
8			24			23				20	
9				23		24					
10			26	27		25				21	
11			35	26	16	26			32	20	
12			22			27			32	19	
13		15				28			31	19	
14		19	31	20	19	29		23	29	22	
15		23		19	20	30			29		
						31			29	19	

CRANE CREEK RESERVOIR NEAR MIDVALE, IDAHO

LOCATION.—Staff gage in SE¼ sec. 19, T. 12 N., R. 2 W., 10 miles southeast of Midvale.

DRAINAGE AREA.—269 square miles.

RECORDS AVAILABLE.—November 1923 to September 1933.

EXTREMES.—Maximum stage during year, 52.65 feet Apr. 25; minimum, 35.0 feet Mar. 17.

1924–33: Maximum stage, 56.3 feet Feb. 22, 1927; no usable storage Sept. 23, 1928, to Feb. 28, 1929, and Sept. 25 to about Dec. 1, 1929.

REMARKS.—Capacity of reservoir is about 60,000 acre-feet at gage height 55 feet. Water is used for irrigation in the lower Weiser Valley. Gage-height record furnished by Crane Creek Reservoir Administration Board.

Gage height, in feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44.06			43.8		42.35	47.4	52.2	51.8	51.1	47.9	43.3
2	44.05						48.4	52.1	51.8		47.8	
3							49.5	52.12	51.75	51.0		43.0
4	44.0		43.65			41.4	51.0	52.1			47.5	42.85
5	43.9				43.9	41.0	51.6	52.1	51.65	50.9	47.4	
6	43.9	43.65				40.6	52.1	52.1	51.65	50.85		42.7
7	43.85					39.9	52.0	52.1	51.65	50.8	47.3	42.55
8	43.85			43.8		39.1	51.8				47.2	42.35
9	43.8					38.1	51.5	52.1	51.6	50.75	47.1	
10						37.6	51.5	52.1	51.6	50.65	47.0	42.1
11	43.75		43.65			37.0	51.5	52.1		50.6	46.9	42.0
12	43.7				43.9	36.4	51.7	52.1	51.6	50.55	46.7	41.94
13	43.7	43.65				36.0	51.8	52.1	51.6	50.5	46.55	41.8
14	43.7					35.7	51.85	52.1	51.55	50.5	46.35	41.7
15				43.9		35.5	52.0		51.55	50.4	46.2	41.55
16	43.7					35.3	52.05	52.1	51.51		46.0	41.5
17						35.0	52.2	52.05	51.5	49.9	45.85	41.35
18			43.65			36.5	52.3	52.05	51.5	49.7	45.65	41.3
19					44.0	36.9	52.35	52.05	51.4	49.5	45.5	41.2
20		43.65				37.5	52.4	52.05	51.35	49.45		
21						38.0	52.45	52.05	51.3			41.0
22				43.9		38.5	52.5	52.1	51.25	49.3	45.0	40.9
23	43.7				44.3	38.9	52.5	52.0	51.25	49.0	44.85	40.85
24					44.3	39.25	52.6	52.0	51.3	48.9		40.85
25			43.8		44.3	39.5	52.65	52.0		48.8		40.8
6						39.95		52.0	51.2	48.7	44.35	40.8
27		43.65			43.8	40.9	52.6	52.0		48.6		40.8
28					43.1	42.0	52.5	51.95	51.15		44.0	40.75
29				43.9		44.1	52.5	51.9	51.15	48.39	43.8	40.75
30	43.65					45.5	52.4		51.1			
31						46.4		51.85		48.0	43.4	

CRANE CREEK NEAR MIDVALE, IDAHO

LOCATION.—Water-stage recorder in SE¼ sec. 19, T. 12 N., R. 2 W., 400 feet below Crane Creek Dam and 10 miles southeast of Midvale.

DRAINAGE AREA.—269 square miles.

RECORDS AVAILABLE.—October 1910 to April 1916; May 1924 to September 1933.

DISCHARGE.—Maximum during year, 766 second-feet Apr. 7, 8 (gage height, 3.24 feet); practically no flow Oct. 15 to Feb. 22.

1910–16, 1924–33: Maximum, 4,240 second-feet Dec. 3, 1910 (gage height, 8.9 feet); practically no flow at times each year when gates in dam are closed.

REMARKS.—Records good. Discharge estimated Mar. 19–30 and Sept. 20. Flow regulated by storage in Crane Creek Reservoir. No large diversions above station. Gage-height record furnished by Crane Creek Reservoir Administration Board.

Discharge, in second-feet, 1932–33

Day	Oct.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	0	335	0.9	285	21	24	134	143
2	22	0	335	.9	163	21	23	124	114
3	22	0	335	1.0	111	20	23	117	114
4	21	0	335	.9	110	21	23	104	114
5	21	0	314	21	109	20	23	85	117
6	21	0	484	390	108	22	24	84	109
7	21	0	615	746	108	23	24	87	106
8	21	0	615	721	108	22	23	104	105
9	21	0	615	522	108	18	52	109	104
10	21	0	615	226	108	11	124	113	100
11	21	0	610	46	108	11	94	120	94
12	21	0	599	.9	76	11	84	145	94
13	21	0	557	.8	55	11	82	154	94
14	13	0	470	.8	55	11	111	164	91
15	0	0	425	.8	55	11	177	173	89
16	0	0	405	.8	55	12	173	173	81
17	0	0	380	.9	38	12	148	166	77
18	0	0	353	11	14	12	137	161	69
19	0	0	218	16	14	13	137	159	60
20	0	0		16	9.5	13	134	161	54
21	0	0		34	.9	17	127	159	54
22	0	0		45	11	17	120	159	49
23	0	89		44	33	17	120	159	40
24	0	262		52	33	17	120	159	40
25	0	338	1	100	33	17	121	157	40
26	0	335		117	33	17	120	153	28
27	0	335		173	28	17	120	164	23
28	0	335		233	20	17	120	172	17
29	0	------		310	20	16	134	172	14
30	0	------		384	20	18	143	172	14
31	0	------	.9	------	21	------	140	170	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	24	0	9.39	577
February	338	0	60.5	3,360
March	615	.9	278	17,100
April	746	.8	141	8,390
May	285	.9	66.1	4,060
June	23	11	16.2	964
July	177	23	97.6	6,000
August	173	84	143	8,790
September	143	14	74.9	4,460
The year	746	0	74.2	53,700

NOTE.—No flow during months omitted.

CRANE CREEK AT MOUTH, NEAR WEISER, IDAHO

LOCATION.—Water-stage recorder in sec. 14, T. 11 N., R. 4 W., just below steel highway bridge at Harris ranch, a quarter of a mile above mouth, and 10 miles northeast of Weiser.

DRAINAGE AREA.—312 square miles.

RECORDS AVAILABLE.—July 1920 to September 1933.

DISCHARGE.—Maximum during year (estimated), 800 second-feet Apr. 7, 8; minimum, 2.1 second-feet Dec. 9 (gage height, 1.58 feet).

1920–33: Maximum, about 2,350 second-feet about Feb. 7, 1925 (gage height, 6.80 feet, from high-water marks on staff gage); minimum, 0.2 second-foot May 26, 1931; minimum gage height, 1.30 feet Jan. 21, 1922.

REMARKS.—Records good except those estimated, Apr. 2, 3, 6–8, 14, 15, May 12, 13, 15–18, July 17–20, which are fair. Discharge interpolated Oct. 24, Apr. 28, 29, June 10, July 8, Aug. 19, Sept. 2, 7–9. Flow is regulated by storage in Crane Creek Reservoir. Several small ditches divert water for irrigation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	3.8	3.8	3.8	4.4	378	188	305	11	9.0	122	153
2	22	3.8	3.8	3.8	4.4	385	210	188	11	11	114	128
3	21	3.6	3.8	3.8	4.4	397	240	120	10	12	104	103
4	20	3.4	3.8	3.8	4.4	397	136	115	10	14	98	103
5	20	3.8	4.0	3.8	4.4	364	112	125	10	14	101	107
6	21	3.8	3.8	3.8	4.7	510	450	109	12	11	73	105
7	21	3.8	3.6	4.0	5.5	692	800	132	13	7.7	76	102
8	21	3.8	2.8	4.2	5.8	679	800	159	14	7.2	89	98
9	22	4.2	2.8	4.2	6.4	673	487	127	16	6.6	98	95
10	22	4.2	3.8	4.0	9.3	679	272	120	13	85	100	91
11	22	4.2	3.8	3.8	6.6	673	101	107	10	80	102	88
12	21	4.2	3.6	3.8	6.1	673	39	75	10	71	122	87
13	21	4.2	3.4	3.8	5.5	643	27	55	9.4	70	132	86
14	21	4.2	3.2	3.8	5.2	519	15	54	9.4	68	135	86
15	12	4.2	3.4	3.8	5.8	477	15	55	9.4	117	144	85
16	6.4	5.0	3.8	4.0	5.2	539	15	55	9.4	150	146	80
17	5.2	5.5	4.2	3.6	5.0	565	14	40	5.6	150	144	71
18	4.0	5.0	4.0	4.0	4.7	468	11	20	5.8	120	139	64
19	3.4	4.7	4.0	4.0	4.7	382	21	13	5.6	120	136	54
20	3.4	4.2	4.0	4.0	4.7	85	21	13	5.1	120	134	49
21	3.4	4.2	4.2	4.0	4.7	69	25	5.1	6.1	108	135	46
22	3.4	4.2	4.2	4.0	5.0	52	43	4.7	8.4	107	135	44
23	3.6	4.0	4.2	4.0	5.2	39	38	15	6.6	102	135	39
24	3.9	4.0	4.2	4.0	284	40	38	20	5.8	103	135	38
25	4.2	4.0	4.2	4.0	455	46	80	21	6.4	105	135	38
26	4.2	4.0	4.2	4.0	382	99	105	23	7.2	104	132	34
27	4.0	4.0	4.0	4.2	382	165	136	22	7.5	107	140	25
28	4.0	4.0	3.8	4.4	382	249	220	12	8.7	108	150	24
29	3.8	4.0	3.8	4.4	------	199	304	12	8.7	117	151	17
30	3.8	4.0	3.8	4.2	------	130	388	12	8.0	127	151	16
31	3.8	------	3.8	4.2	------	156	------	11	------	128	153	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	22	3.4	12.0	738
November	5.5	3.4	4.13	246
December	4.2	2.8	3.80	234
January	4.4	3.6	3.97	244
February	455	4.4	71.7	3,980
March	692	39	368	22,600
April	800	11	178	10,600
May	305	4.7	69.2	4,250
June	16	5.1	9.10	541
July	150	6.6	79.3	4,880
August	153	73	125	7,690
September	153	16	71.9	4,280
The year	800	2.8	83.3	60,300

WEISER IRRIGATION DISTRICT CANAL NEAR WEISER, IDAHO

LOCATION.—Water-stage recorder in sec. 32, T. 11 N., R. 4 W., 1½ miles below head works of canal and 7 miles east of Weiser.

RECORDS AVAILABLE.—April 1920 to September 1933.

DISCHARGE.—Maximum during year, 207 second-feet July 10 (gage height, 3.11 feet); practically no flow during winter.

1920–33: Maximum, 221 second-feet July 15, 1932; maximum gage height, 3.43 feet May 5, 1926; usually no flow except during irrigation season.

REMARKS.—Records good. Discharge Oct. 24, results of current-meter measurements. One farm lateral diverts water a quarter of a mile above gage. Canal diverts from Weiser River in sec. 3, T. 10 N., R. 4 W., 1½ miles above gage, and furnishes water for irrigation of about 7,000 acres included in projects of the Weiser and Weiser Bench Irrigation Districts near Weiser. Gage-height record furnished by Weiser Irrigation District.

Discharge, in second-feet, 1932–33

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1	41	0	5.5	188	186	144	150
2	41	0	58	190	183	142	114
3	40	0	170	192	183	143	104
4	40	0	173	191	181	143	104
5	40	0	173	189	187	122	105
6	37	0	173	191	192	110	104
7	44	0	168	190	193	111	97
8	45	0	168	188	193	124	99
9	53	0	168	190	178	132	96
10	63	0	167	192	198	127	95
11	66	0	166	188	201	127	88
12	64	0	166	189	184	138	82
13	64	0	165	188	168	152	88
14	67	0	167	185	150	154	92
15	67	0	168	183	188	162	87
16	------	0	173	184	196	160	86
17	------	0	174	184	176	154	79
18	------	43	170	180	152	156	79
19	------	87	165	173	152	153	73
20	------	102	164	164	148	148	67
21	------	114	164	173	138	150	68
22	------	131	156	180	132	145	66
23	------	136	166	186	133	145	77
24	21	142	166	186	135	147	76
25	------	159	172	184	133	142	82
26	------	176	182	184	131	133	71
27	------	182	180	185	123	131	67
28	------	182	176	185	122	142	72
29	------	138	179	190	126	147	70
30	------	8.0	186	191	138	150	66
31	------	------	187	------	142	151	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October 1–15	67	37	51.5	1,530
April	182	0	53.3	3,170
May	187	5.5	152	9,960
June	192	164	175	11,000
July	201	122	153	10,000
August	162	110	141	8,670
September	150	66	86.8	5,160

BURNT RIVER BASIN

BURNT RIVER NEAR HEREFORD, OREG.

LOCATION.—Water-stage recorder in SE¼ sec. 21, T. 12 S., R. 37 E., at entrance to canyon, 0.7 mile below mouth of South Fork of Burnt River and 7 miles west of Hereford.

RECORDS AVAILABLE.—March 1915 to September 1916; October 1928 to September 1933.

DISCHARGE.—Maximum during year (estimated), about 800 second-feet Apr. 29 or 30; minimum, 3 second-feet Sept. 3.

1915–16, 1928–33: Maximum, 1,100 second-feet Apr. 13, 1932 (gage height, 4.75 feet at site and datum used prior to June 29, 1932); minimum recorded, 2 second-feet Sept. 15, 1932.

REMARKS.—Records fair except those estimated, which are poor. Many small diversions for irrigation in basin above. Some regulations from reservoir (capacity, about 700 acre-feet) on South Fork of Burnt River, 3 miles above mouth. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	20	30	26	32					36	13	9
2	7	20	33	27	31					40	14	11
3	7	19	30	28	29					38	17	8
4	7	21	27	28	26				[a] 153	31	17	5
5	7	25	27	28						27	17	6
6	7	27	23	28				[a] 402	100	24		7
7	13	26	20	28						23		8
8	11	23	10	28						28		11
9	10	29		27					[a] 73	27		13
10	7	26		27						22		14
11	7	24		28						19		14
12	7	23		28		[a] 46	[a] 275		71	18	[a] 14	13
13	8	23		26				270	77	18		12
14	7	24		28					129	19		10
15	7	25		26					60	18		12
16	11	28		27	[a] 23				39	16		11
17	12	52		20					34	12		9
18	10	40		18					32	14		9
19	8	36						[a] 287	29	14		10
20	10	35	[a] 19						32	12	11	9
21	10	34							50	8	10	10
22	11	33		[a] 20					45	10	10	10
23	12	31							42	9	10	10
24	11	30				49			36	6	9	10
25	12	32					650	260	31	6	9	11
26	12	32		26				250	28	6	9	8
27	12	32		30		[a] 87	[a] 675		22	6	9	9
28	17	33		31					33	10	8	[a] 9
29	17	33		32	------			[a] 210	37	12	8	[a] 9
30	18	31		32	------				40	13	8	[a] 9
31	19	------		32	------		------		------	13	9	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	19	7	10.4	640
November	52	19	28.9	1,720
December	33	------	20.5	1,260
January	32	------	25.8	1,590
February	------	------	23.9	1,330
March	------	------	55.4	3,410
April	------	------	3[illegible]4	21,100
May	------	------	316	19,400
June	------	22	69.9	4,160
July	40	6	17.9	1,100
August	17	8	12.4	762
September	14	5	9.9	589
The year	------	5	78.8	57,100

[a] Estimated.

BURNT RIVER NEAR DURKEE, OREG.

LOCATION.—Water-stage recorder in SW¼ sec. 25, T. 11 S., R. 42 E., 3 miles west of Durkee.

RECORDS AVAILABLE.—October 1931 to September 1933. September 1928 to September 1932 at station 20 miles downstream, at Huntington.

DISCHARGE.—Maximum during year, 794 second-feet Apr. 30 (gage height, 5.45 feet); practically no flow Sept. 3–8.

1931–33: Maximum, 1,150 second-feet Apr. 14, 1932 (gage height, 6.20 feet); minimum, that of Sept. 3–8, 1933.

REMARKS.—Records fair except those above 500 second-feet, which are poor. Diversions for irrigation above station; no regulation. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.8	41	31	a35	46	144	750	137	2.7	0.2	0.1
2		1.2	40	31	35	a48	143	629	138	2.4	.3	.1
3		1.8	36	32		a49	149	521	131	2.2	.3	0
4	a0.1	2.7	32	32		a50	184	573	123	2.0	.4	0
5		3.9	32	34		a51	224	538	114	1.8	.3	0
6		1.9	24			51	309	488	93	.8	.1	0
7	.1	.4	25			49	352	504	63	.5	.4	0
8	a.1	2.5	13			a49	376	454	50	.6	.5	0
9	.1	7.0				a48	332	438	45	.6	.8	.1
10	.1	8.2			a28	47	249	406	34	.6	.7	.1
11	.1	8.5				53	196	340	31	.5	.6	.1
12	.1	8.2				62	170	293	29	.6	.5	.1
13	.3	8.5				76	163	258	17	.3	.6	.3
14	.3	8.8		a35		73	187	242	11	.3	.5	.6
15	.6	14				79	210	227	9.4	.1	.4	.8
16	.8	26				88	275	265	11	.1	1.0	.6
17	.9	27			36	91	334	298	10	.1	.8	.1
18	.8	34	a22		26	88	373	329	7.3	.1	.1	.1
19	.8	52			37	93	314	314	5.5	.4	.1	.1
20	.6	49			37	105	268	290	4.5	1.0	.1	.1
21	.4	45			38	96	288	265	3.9	.5	.1	.1
22	.5	43		30	39	97	355	249	5.2	.3	.2	.1
23	.5	41		31	40	100	406	224	6.0	.2	.2	.1
24	.4	41		31	a41	86	504	210	7.9	.2	.2	.1
25	.4	40		32	42	92	610	186	8.8	.1	.2	.1
26	.4	40		33	a43	86	648	170	7.6	.1	.2	.1
27	.4	40		33	a44	94	688	162	5.5	.1	.1	.5
28	.4	41		a34	45	107	688	163	11	.1	.1	.5
29	.6	41	31	34	------	130	729	154	5.5	.1	.1	.3
30	.7	41	31	a34	------	143	729	146	3.1	.3	.1	.4
31	.8	------	31	34	------	142	------	140	------	.1	.1	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	0.9	----------	0.39	24
November	52	0.4	22.6	1,340
December	41	----------	25.0	1,540
January	----------	----------	33.7	2,070
February	45	----------	33.6	1,870
March	143	46	79.6	4,890
April	729	143	353	21,000
May	750	140	330	20,300
June	138	3.1	37.6	2,240
July	2.7	.1	0.64	39
August	1.0	.1	0.33	20
September	.8	0	0.19	11
The year	750	0	76.5	55,300

a Estimated.

POWDER RIVER BASIN

POWDER RIVER AT SALISBURY, OREG.

LOCATION.—Staff gage in sec. 30, T. 10 S., R. 40 E., three-quarters of a mile below railroad siding of Salisbury and 8½ miles south of Baker. Zero of gage is 3,628.33 feet above mean sea level.

DRAINAGE AREA.—230 square miles.

RECORDS AVAILABLE.—December 1903 to August 1914; October 1928 to September 1933.

DISCHARGE.—Maximum during year, 715 second-feet June 4 (gage height, 3.90 feet); minimum, 2.6 second-feet Oct. 1–4 (gage height, 0.66 foot).

1903–14, 1928–33: Maximum, 1,820 second-feet Mar. 20, 1910 (gage height, 7.05 feet); no flow on Aug. 31, 1909, Sept. 7, 1931. Average, 13 years (1904–13, 1929–33), 116 second-feet.

REMARKS.—Records fair. Diversions for irrigation above station. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	12	17	-------		109	645	680	136	14	4.1
2	2.6	12	18	-------		221	555	680	126	14	4.1
3	2.6	12	20	-------		440	440	680	121	15	4.1
4	2.6	14	20	-------		415	390	715	106	15	3.4
5	3.0	15		-------		365	365	680	94	22	4.1
6	3.4	15		-------		303	340	585	70	20	4.1
7	4.8	15		-------		267	303	555	60	18	6
8	4.1	17		-------	a 39	244	291	525	57	17	4.8
9	4.1	18	a 10	-------		199	291	555	52	15	4.8
10	4.8	15		-------		177	244	615	46	15	6
11	4.8	12		-------		136	210	555	40	14	6
12	4.8	11		-------		177	210	615	35	12	4.8
13	6	12		-------		210	221	645	30	12	4.8
14	6	14		-------		232	256	585	27	12	6
15	5	14	6	-------		244	291	555	25	12	6
16	8	15		-------	63	256	340	525	22	11	4.8
17	6	44		-------	66	244	340	465	20	10	6
18	6	30		-------	60	221	340	390	20	10	6
19	6	25		-------	60	199	303	340	19	10	6
20	6	22		20	a 70	244	291	291	19	9	6
21	9	20		-------	58	340	279	267	18	7	4.8
22	12	18		-------	47	390	291	256	18	7	3.4
23	11	18		-------	a 44	465	315	199	20	7	4.8
24	10	20	a 15	-------	a 55	525	340	188	20	6	4.8
25	9	22		-------	70	585	415	166	18	6	6
26	9	20		-------	77	555	495	166	18	6	7
27	9	20		-------	94	615	525	117	18	6	8
28	9	18		-------	156	645	555	210	17	6	7
29	8	18		-------	134	680	585	166	17	6	7
30	9	17		-------	136	615	615	156	17	6	7
31	10	-------		-------	123	-------	680	-------	15	4.1	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	12	2.6	6.39	393
November	44	11	17.8	1,060
December	-------	-------	13.6	836
January	-------	-------	a 17.0	1,050
February	-------	-------	a 20.0	1,110
March	156	-------	a 61.2	3,760
April	680	109	344	20,500
May	680	210	379	23,300
June	715	117	438	26,100
July	136	15	42.6	2,620
August	22	4.1	11.1	682
September	8	3.4	5.39	321
The year	715	2.6	113	81,700

a Estimated.

POWDER RIVER NEAR ROBINETTE, OREG.

LOCATION.—Staff gage in NW¼ sec. 22, T. 9 S., R. 46 E., 3 miles northwest of Robinette.

RECORDS AVAILABLE.—September 1928 to September 1933.

DISCHARGE.—Maximum during year, 4,180 second-feet June 15, 16 (gage height, 6.9 feet); minimum, 58 second-feet Feb. 10 (gage height, 0.76 foot); possibly less than 58 second-feet at times during winter.

1928–33: Maximum, that of June 15, 16, 1933; minimum, 18 second-feet Sept. 2–10, 1930.

REMARKS.—Records good except those estimated, which are fair. Numerous diversions for irrigation above station, but only one small diversion below.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	140		140	220	420	1,690	2,560	1,050	140	121
2	e 112	140		140	264	735	1,850	2,650	910	171	121
3	112	140		140	440	910	1,690	2,740	910	160	112
4	112	150		130	420	1,130	1,530	2,920	850	160	112
5	104	140	e 210	130	280	1,050	1,530	2,920	850	160	110
6	112	150		140	220	980	1,370	2,740	790	160	105
7	112	140		110	220	910	1,210	2,560	790	160	100
8	121	150		121	220	910	1,210	2,560	685	160	110
9	121	150	220	100	171	790	1,050	3,010	635	160	109
10	121	150	194	72	171	735	1,050	3,100	585	150	110
11	121	150	171		194	685	910	2,920	520	160	121
12	121		182		280	635	910	3,280	520	150	121
13	121		182		440	585	980	3,480	440	140	112
14	e 124		171		400	635	1,210	3,480	440	140	121
15	e 127	e 175	140		380	685	1,450	3,680	400	140	121
16	130				440	790	1,290	3,680	380	130	121
17	121	280		e 110	635	685	1,050	3,380	362	130	121
18	121	280			500	635	1,050	2,920	328	121	112
19	130	280			420	635	980	2,560	296	121	102
20	121	264	e 146		480	685	910	2,110	249	121	100
21	121	249			480	635	1,050	1,850	207	121	97
22	130	220			362	790	1,210	1,530	220	109	102
23	130	207			280	910	1,210	1,450	194	102	100
24	e 130		160	121	296	1,050	1,370	1,370	171	105	104
25	130		160	121	264	1,450	1,210	1,290	150	104	109
26	130		150	121	264	1,770	1,530	1,210	150	104	107
27	130	e 185	160	140	380	1,850	1,690	1,130	140	112	107
28	130		160	150	540	2,020	1,690	1,530	130	112	110
29	130		160	-------	585	2,200	1,690	1,290	121	102	104
30	130		150	-------	540	1,850	2,020	1,130	112	98	98
31	130	-------	150	-------	460	-------	2,470	-------	130	105	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	130	104	122	7,500
November	----------	----------	185	11,000
December	----------	----------	e 170	10,500
January	----------	----------	173	10,600
February	----------	----------	118	6,550
March	635	171	363	22,300
April	2,200	420	992	59,000
May	2,470	910	1,360	83,600
June	3,680	1,130	2,430	145,000
July	1,050	112	442	27,200
August	171	98	133	8,180
September	121	97	110	6,550
The year	3,680	----------	549	398,000

e Estimated.

IMNAHA RIVER BASIN

IMNAHA RIVER AT IMNAHA, OREG.

LOCATION.—Staff gage in SW¼ sec. 16, T. 1 N., R. 48 E., at Imnaha, an eighth of a mile below mouth of Sheep Creek.

RECORDS AVAILABLE.—June 1928 to September 1933.

DISCHARGE.—Maximum during year, 3,450 second-feet June 10, 16 (gage height, 4.95 feet); minimum, 40 second-feet Feb. 9 (gage height, 0.24 foot); possibly less than 40 second-feet at times during winter.

1928–33: Maximum, 3,450 second-feet May 21, 1932, and June 10, 16, 1933; maximum gage height, 5.00 feet May 21, 1932; minimum, 40 second-feet Nov. 22, 1931, and Feb. 9, 1933.

REMARKS.—Records good except those for Oct. 1–18, Aug. 12 to Sept. 30, and those estimated, Dec. 8–17, Jan. 19, Feb. 10–19, which are fair. Diversions for irrigation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	115	137	117	113	126	296	1,190	2,700	1,110	278	113
2	95	117	135	122	113	124	296	1,190	2,700	1,110	278	111
3	93	117	135	111	103	135	452	1,030	2,700	1,110	278	109
4	91	117	135	117	103	113	590	1,030	2,820	1,030	278	105
5	88	122	135	120	103	117	542	1,030	2,700	990	296	103
6	93	135	109	122	105	115	542	1,030	2,370	950	262	101
7	93	152	79	122	73	140	498	950	2,150	870	245	107
8	93	147		126	81	128	430	835	2,050	835	245	109
9	97	147		122	50	115	370	765	2,940	800	245	109
10	97	142		122		147	332	730	3,190	730	230	107
11	95	124		113		140	313	700	2,480	670	230	105
12	93	117		107		164	296	700	2,590	670	214	105
13	97	120	63	111		185	278	800	2,700	642	200	105
14	99	128		117		175	278	950	2,700	590	182	113
15	103	124		93	79	200	350	1,370	2,940	565	169	122
16	107	152		79		230	410	1,460	2,940	542	159	107
17	131	200		53		262	410	1,750	2,480	520	157	103
18	131	200	172	42		245	390	1,550	2,150	475	162	101
19	122	182	175	50		230	390	1,370	1,850	452	162	101
20	117	172	172	93	128	214	452	1,370	1,750	430	149	105
21	113	164	154	140	115	230	590	1,370	1,650	410	149	122
22	115	157	154	128	115	214	800	1,460	1,650	390	149	109
23	124	142	152	126	117	200	1,110	1,550	1,550	390	149	105
24	120	145	147	122	109	185	1,190	1,650	1,460	370	133	124
25	113	147	145	113	109	185	1,650	1,750	1,460	370	133	126
26	113	142	140	101	107	200	1,650	2,370	1,460	350	128	122
27	117	140	131	122	103	200	2,050	2,150	1,370	332	115	124
28	117	140	128	111	109	262	2,050	1,950	1,550	313	103	117
29	113	140	124	115	-------	313	2,050	1,850	1,370	313	91	113
30	113	140	117	115	-------	313	1,550	2,260	1,190	296	107	113
31	113	-------	115	109	-------	313	-------	2,700	-------	296	113	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	131	88	106	6,520
November	200	115	143	8,510
December	175	-------	114	7,010
January	140	42	108	6,640
February	-------	-------	94.5	5,250
March	313	113	191	11,700
April	2,050	278	754	44,900
May	2,700	700	1,380	84,800
June	3,190	1,190	2,190	130,000
July	1,110	296	610	37,500
August	296	91	187	11,500
September	126	101	111	6,600
The year	3,190	42	499	360,000

SALMON RIVER BASIN

SALMON RIVER BELOW VALLEY CREEK, AT STANLEY, IDAHO

LOCATION.—Water-stage recorder in SE¼SE¼ sec. 34, T. 11 N., R. 13 E., three-quarters of a mile below mouth of Valley Creek and 1¼ miles northeast of Stanley. Zero of gage is 6,189.24 feet above mean sea level.

DRAINAGE AREA.—535 square miles.

RECORDS AVAILABLE.—July 1925 to September 1933.

DISCHARGE.—Maximum during year, 4,400 second-feet June 16 (gage height, 3.98 feet); minimum (estimated), 130 second-feet Dec. 10–13.

1925–33: Maximum, 5,020 second-feet June 27, 1927 (gage height, 4.41 feet); minimum (estimated), 100 second-feet Nov. 20–30, 1929.

REMARKS.—Records good except those estimated because of ice, Dec. 1 to Mar. 14, which are poor. Diversions for irrigation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	282	318					292	732	2,090	1,640	a 420	272
2	277	318					324	676	2,240	1,360	423	272
3	277	307	a 280	a 210	a 200		341	632	2,470	1,290	410	267
4	277	287					272	676	2,550	1,230	383	267
5	277	329					272	685	2,390	1,180	370	a 264
6	277	347					272	650	2,320	1,170	358	a 261
7	292	335	a 200				272	632	2,390	1,120	353	258
8	302	329				a 210	277	557	a2,400	1,120	353	258
9	302	396			a 180		267	541	a3,500	a1,060	347	258
10	297	318		a 220			258	533	3,990	990	347	254
11	297	292	a 130				262	525	3,700	a 940	324	254
12	292	329					258	517	3,700	867	329	254
13	292	335					254	525	3,790	867	329	254
14	302	329					254	581	3,990	818	a 320	258
15	307	302				220	277	659	4,090	798	312	282
16	312	329	a 150		a 190	272	297	695	4,300	a 760	312	282
17	324	329				262	307	750	4,190	732	318	272
18	324	329				272	312	704	3,700	713	312	272
19	302	318				a 265	318	667	3,140	650	307	272
20	297	335	a 170	a 200		262	329	695	2,800	573	307	267
21	307	318				262	341	779	2,550	549	297	262
22	307	307				282	364	847	2,390	525	297	262
23	312	277				312	390	818	2,240	509	297	267
24	287	287			a 200	272	429	838	2,160	509	297	282
25	297	302				272	502	908	2,090	487	287	282
26	324	297	a 200			272	606	1,040	2,020	458	287	287
27	312	307		a 210		267	713	1,170	1,880	451	287	282
28	312	307				267	838	1,210	1,950	443	282	282
29	312	297			-------	245	887	1,290	1,770	429	277	282
30	307	312			-------	245	818	1,500	1,620	423	272	282
31	292	-------			-------	272	-------	1,760	-------	416	272	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	324	277	299	0.559	0.64	18,400
November	396	277	317	.593	.66	18,900
December	----------	----------	193	.361	.42	11,900
January	----------	----------	211	.394	.45	13,000
February	----------	----------	192	.359	.37	10,700
March	----------	----------	241	.450	.52	14,800
April	887	254	387	.723	.81	23,000
May	1,760	517	800	1.50	1.73	49,200
June	4,300	1,620	2,810	5.25	5.86	167,000
July	1,460	416	803	1.50	1.73	49,400
August	423	272	325	.607	.70	20,000
September	287	254	269	.503	.56	16,000
The year	4,300	----------	570	1.07	14.45	412,000

a Estimated.

SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, IDAHO

LOCATION.—Water-stage recorder in sec. 20, T. 11 N., R. 15 E., a quarter of a mile below Sunbeam Dam and mouth of Yankee Fork and 18 miles above Clayton.

DRAINAGE AREA.—841 square miles.

RECORDS AVAILABLE.—October 1921 to September 1933.

DISCHARGE.—Maximum during year, 6,400 second-feet June 10 (gage height, 8.07 feet); minimum (estimated), 180 second-feet Dec. 10–13.

1921–33: Maximum (estimated), 8,000 second-feet June 27, 1927; minimum (estimated), 160 second-feet Nov. 25–30, 1929.

REMARKS.—Records good except those estimated, Dec. 10 to Mar. 13, Mar. 15–30, Apr. 1–14, 16–21, 23, and Aug. 4, which are poor. No diversions above station. Gage-height record furnished by Idaho Power & Mining Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	381	436	396					1,290	4,140	2,030	615	396
2	381	425	399					1,160	4,400	1,900	615	392
3	381	406	381	290	270			1,040	4,660	1,780	638	385
4	378	350	329					1,070	4,660	1,740	610	381
5	378	440	360					1,100	4,400	1,600	570	374
6	378	459	308					1,040	4,270	1,520	548	367
7	410	425	319			280		1,040	4,270	1,490	548	370
8	425	425	275				380	952	4,140	1,490	527	374
9	421	527	250		250			898	5,360	1,460	527	381
10	406	417		300				870	6,250	1,360	506	374
11	406	356	180					815	5,950	1,260	486	370
12	403	455						815	5,950	1,190	478	370
13	399	463						788	5,950	1,130	466	370
14	403	436				259		898	6,250	1,100	463	374
15	414	388	220				390	1,040	6,250	1,070	455	414
16	421	447			260			1,100	6,100	1,010	443	414
17	443	447				320		1,160	5,800	980	440	403
18	432	451						1,130	5,220	952	455	392
19	403	410					430	1,100	4,530	925	486	392
20	392	451	260	270				1,130	4,010	870	463	385
21	425	421						1,290	3,640	842	447	381
22	417	406					478	1,490	3,520	815	447	378
23	425	332					550	1,420	3,280	788	440	378
24	388	350					736	1,520	3,050	762	428	385
25	406	410			270		870	1,740	2,940	736	421	410
26	447	388	280			360	980	2,080	2,830	711	425	410
27	432	417		280			1,190	2,360	2,610	686	421	417
28	421	417					1,460	2,360	2,510	662	417	410
29	406	399			-------		1,560	2,610	2,510	638	406	399
30	414	410			-------		1,390	3,160	2,260	638	399	392
31	360	-------			-------	360	-------	3,760	-------	615	399	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	447	360	406	0.483	0.56	25,000
November	527	332	419	.498	.56	24,900
December	399	----------	272	.323	.37	16,700
January	----------	----------	285	.339	.39	17,500
February	----------	----------	262	.312	.32	14,600
March	----------	----------	315	.375	.43	19,400
April	1,560	----------	583	.693	.77	34,700
May	3,760	788	1,430	1.70	1.96	87,900
June	6,250	2,260	4,390	5.22	5.82	261,000
July	2,030	615	1,120	1.33	1.53	68,900
August	638	399	484	.576	.66	29,800
September	417	367	388	.461	.51	23,100
The year	6,250	----------	861	1.02	13.88	624,000

SALMON RIVER NEAR CHALLIS, IDAHO

LOCATION.—Water-stage recorder in sec. 7, T. 12 N., R. 19 E., 250 feet below mouth of Bayhorse Creek and 9 miles south of Challis.

DRAINAGE AREA.—1,740 square miles.

RECORDS AVAILABLE.—October 1928 to September 1933.

DISCHARGE.—Maximum during year, 9,520 second-feet June 16 (gage height, 7.68 feet); minimum, 238 second-feet Dec. 10 (gage height, 0.89 foot).

1929–33: Maximum, that of June 16, 1933; minimum, that of Dec. 10, 1932.

REMARKS.—Records good except those estimated because of ice, Dec. 11 to Mar. 20, which are poor. Discharge estimated Dec. 2, 3, Sept. 3, 4, 6–9, 13–15, because of missing gage-height records. Diversions for irrigation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	646	646	622				533	1,710	6,000	2,900	891	622
2	622	670	610	450	410		554	1,560	6,460	2,700	891	622
3	622	646	570				599	1,380	7,180	2,560	923	620
4	622	599	533				622	1,340	6,940	2,500	891	600
5	622	622	533			430	599	1,380	6,460	2,440	860	576
6	622	695	513				599	1,340	6,230	2,320	830	560
7	646	670	456				599	1,340	6,230	2,260	830	560
8	670	646	390				554	1,250	5,780	2,200	802	570
9	670	746	273		370		554	1,130	7,180	2,200	802	600
10	646	670	260	470			533	1,100	8,710	2,080	773	599
11	646	576	280				533	1,060	8,450	1,980	773	599
12	646	622	300			450	554	1,060	8,450	1,860	746	599
13	646	695	330				513	1,020	8,980	1,760	746	600
14	646	670					533	1,100	9,250	1,710	720	600
15	646	622					554	1,210	9,250	1,610	695	610
			360		390							
16	646	646					599	1,290	9,250	1,560	670	622
17	670	670					599	1,420	8,980	1,470	670	622
18	670	670				520	646	1,420	7,680	1,420	695	599
19	646	646					646	1,380	6,460	1,340	746	599
20	622	646	410	410			646	1,380	5,780	1,290	695	599
21	670	646				576	646	1,560	5,240	1,250	670	599
22	670	646				554	670	1,860	4,940	1,210	695	599
23	670	554				554	802	1,860	4,640	1,170	670	599
24	646	533				554	923	1,920	4,460	1,100	670	599
25	622	599			410	554	1,100	2,200	4,180	1,060	646	622
26	670	622	440			576	1,210	2,760	4,000	1,020	646	646
27	670	622		430		576	1,420	3,260	3,740	990	646	646
28	670	622				599	1,810	3,190	3,660	990	646	646
29	646	622			-------	599	2,140	3,340	3,500	955	622	622
30	646	622			-------	554	1,860	4,180	3,260	923	622	599
31	599	-------			-------	554	-------	5,560	-------	923	622	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	670	599	647	0.372	0.43	39,800
November	746	533	639	.367	.41	38,000
December	622	260	423	.243	.28	26,000
January	----------	----------	441	.253	.29	27,100
February	----------	----------	395	.227	.24	21,900
March	----------	----------	497	.286	.33	30,600
April	2,140	513	805	.463	.52	47,900
May	5,560	1,020	1,860	1.07	1.23	114,000
June	9,250	3,260	6,380	3.67	4.10	380,000
July	2,900	923	1,670	.960	1.11	103,000
August	923	622	736	.423	.49	45,300
September	646	560	605	.348	.39	36,000
The year	9,250	260	1,260	.724	9.82	910,000

SALMON RIVER AT SALMON, IDAHO

LOCATION.—Water-stage recorder in sec. 6, T. 21 N., R. 22 E., near Rose ranch buildings, 1,000 feet below island, just above Lemhi River, and three-eighths of a mile below highway bridge at Salmon.

DRAINAGE AREA.—3,600 square miles.

RECORDS AVAILABLE.—April 1912 to September 1916; July 1919 to September 1933.

DISCHARGE.—Maximum during year, 10,200 second-feet June 14; maximum gage height, 7.30 feet Dec. 19, during ice jam; minimum, 317 second-feet Dec. 9 (gage height, 1.76 feet).

1912–16, 1919–33: Maximum, 16,400 second-feet June 12, 1921; minimum, that of Dec. 9, 1932.

REMARKS.—Records good except those estimated because of ice, Dec. 9 to Mar. 15, and those estimated Apr. 16–20, Aug. 6–11, 13–18, which are fair. Diversions for irrigation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	910	1,020	1,040				880	2,230	6,420	3 810	1,070	810
2	910	1,080	1,030	780	720		850	2,090	6,940	3 460	1,050	810
3	910	1,110	1,020				850	1,940	7,730	3 230	1,070	810
4	910	1,080	1,020				890	1,750	8,270	3,120	1,080	800
5	920	1,030	986			810	910	1,680	8,000	3,010	1,050	780
6	920	1,090	942				900	1,700	7,460	2,900	1,020	750
7	931	1,130	910				890	1,650	7,460	2,800	980	740
8	942	1,110	684				890	1,650	7,460	2,700	960	740
9	975	1,100	400		640		830	1,520	7,460	2,700	940	750
10	997	1,180	400	820			810	1,390	9,080	2,500	910	750
11	1,010	1,090	420				810	1,290	9,360	2,390	880	750
12	1,010	997	450			830	800	1,250	9,360	2,280	860	750
13	1,020	1,050	500				810	1,230	9,640	2,140	860	750
14	997	1,150					810	1,190	9,920	2,040	840	760
15	997	1,130	600				790	1,240	9,920	1,940	810	770
16	1,040	1,080			700		850	1,410	9,920	1,860	790	790
17	1,040	1,100					890	950	1,520	9,640	1,790	780	800
18	1,050	1,140					890	930	1,600	9,080	1,730	820	800
19	1,070	1,140					900	920	1,570	8,000	1,630	880	800
20	1,070	1,110	680	680			910	920	1,520	7,080	1,560	910	800
21	1,050	1,110					900	920	1,570	6,290	1,500	900	790
22	1,080	1,130					870	920	1,920	5,900	1,460	880	780
23	1,090	1,090					850	920	2,210	5,650	1,410	870	770
24	1,090	1,010					840	1,070	2,200	5,280	1,360	850	780
25	1,080	997			740		850	1,200	2,340	5,020	1,310	820	810
26	1,050	1,050	740				860	1,390	2,700	4,780	1,280	820	820
27	1,100	1,080		740			870	1,560	3,460	4,530	1,240	840	830
28	1,080	1,050					900	1,830	3,810	4,290	1,200	840	850
29	1,070	1,080			-------		931	2,300	3,810	4,290	1,150	830	860
30	1,050	1,050			-------		910	2,470	4,290	4,170	1,110	820	860
31	1,040	-------			-------		890	-------	5,400	-------	1,090	810	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	1,100	910	1,010	0.281	0.32	62,100
November	1,180	997	1,090	.303	.34	64,900
December	1,040	400	718	.199	.23	44,100
January	----------	----------	756	.210	.24	46,500
February	----------	----------	702	.195	.20	39,000
March	----------	----------	851	.236	.27	52,300
April	2,470	790	1,060	.294	.33	63,100
May	5,400	1,190	2,100	.583	.67	129,000
June	9,920	4,170	7,280	2.02	2.25	433,000
July	3,810	1,090	2,050	.569	.66	126,000
August	1,080	780	898	.249	.29	55,200
September	860	740	789	.219	.24	46,900
The year	9,920	400	1,610	.447	6.04	1,160,000

SALMON RIVER AT WHITEBIRD, IDAHO

LOCATION.—Water-stage recorder in sec. 22, T. 28 N., R. 1 E., at highway bridge just above Whitebird Creek and 1 mile southwest of Whitebird.

DRAINAGE AREA.—13,400 square miles (revised).

RECORDS AVAILABLE.—August 1910 to September 1917; October 1919 to September 1933.

DISCHARGE.—Maximum during 1932, 68,500 second-feet May 22 (gage height, 27.77 feet); minimum, 1,790 second-feet Nov. 24 (gage height, 10.58 feet).

Maximum during 1933, 82,200 second-feet June 15 (gage height, 29.86 feet); minimum, 1,580 second-feet Dec. 11 (gage height, 10.23 feet).

1910-17, 1919–33: Maximum, 88,800 second-feet June 9, 1921 (gage height, 31.2 feet, present datum); minimum, that of Dec. 11, 1932.

Maximum stage known, about 37.5 feet (present datum) June 1894 (discharge, 120,000 second-feet).

REMARKS.—Records excellent except those estimated, Mar. 7–10, 12–15, Sept. 4–9, 1932, and for periods of ice effect, Dec. 11–31, 1932, Feb. 5–23, 1933, which are fair. Amount of water diverted for irrigation above station negligible.

Discharge, in second-feet, 1931–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	2,870	3,300	2,240	2,740	2,620	4,670	5,620	13,600	29,100	27,300	6,830	4,670
2	2,870	3,220	2,190	2,680	2,680	4,670	6,420	15,400	28,600	25,100	6,620	4,490
3	2,800	3,300	2,390	2,870	2,800	4,310	7,460	17,400	28,200	23,500	6,420	4,400
4	2,800	3,300	2,560	2,940	2,800	3,960	8,120	18,900	30,000	21,500	6,220	4,300
5	2,800	3,380	2,800	2,870	2,800	3,700	7,460	20,400	33,400	19,200	6,020	4,200
6	2,870	3,300	3,080	2,800	2,620	3,620	7,040	21,100	34,400	17,800	5,820	4,100
7	2,940	3,300	3,220	2,800	2,740	3,500	6,620	22,700	34,900	16,100	5,620	4,000
8	2,940	3,300	3,080	2,800	2,870	3,400	6,620	26,000	34,900	15,100	5,430	4,000
9	2,870	3,540	3,010	2,940	3,010	3,400	6,420	30,000	34,900	14,200	5,240	3,900
10	2,870	3,540	3,010	3,080	3,080	3,300	6,420	33,900	35,400	13,300	5,240	3,790
11	2,870	3,380	3,010	3,150	3,010	3,300	6,830	38,900	36,900	12,700	5,240	3,790
12	2,800	3,220	2,800	3,150	2,940	3,400	8,120	44,300	41,000	12,200	5,240	3,700
13	2,800	3,010	2,390	3,080	2,940	3,500	10,500	51,600	44,800	11,900	5,050	3,700
14	2,800	2,800	2,240	3,010	2,800	3,600	13,600	61,100	49,300	12,200	5,050	3,620
15	2,800	2,800	2,060	2,620	2,680	3,700	15,700	59,900	52,200	13,000	4,860	3,620
16	2,800	3,080	1,900	2,340	2,620	3,880	14,500	53,400	57,500	12,200	4,670	3,620
17	2,800	3,220	2,190	2,290	2,340	3,960	14,200	48,800	59,300	11,100	4,670	3,540
18	2,800	3,220	2,440	2,560	2,440	4,220	13,300	49,300	55,700	10,500	4,490	3,460
19	2,800	3,220	2,800	2,800	2,440	5,820	12,700	53,400	51,600	10,300	4,310	3,460
20	2,800	3,220	2,870	3,080	2,500	7,460	12,400	56,900	48,800	11,900	4,220	3,460
21	2,800	3,080	3,300	3,150	2,680	7,250	11,900	63,600	46,500	12,400	4,130	3,790
22	2,800	2,740	3,220	3,010	2,740	6,420	10,800	66,100	46,500	11,100	4,040	3,880
23	2,940	2,100	3,220	2,740	2,800	5,620	10,000	57,500	48,800	10,000	4,040	3,790
24	3,080	1,820	3,220	2,390	2,800	5,430	9,290	48,800	48,800	9,290	3,960	3,790
25	3,150	2,140	3,220	2,060	2,870	5,240	9,290	42,100	47,100	9,050	3,960	3,700
26	3,300	2,800	3,220	2,060	3,010	5,050	9,780	37,400	43,200	8,580	3,880	3,700
27	3,300	3,080	3,220	2,240	3,380	4,860	11,100	33,400	39,500	8,120	3,880	3,700
28	3,300	2,870	3,300	2,620	3,880	4,860	12,700	30,000	35,900	7,900	3,960	3,620
29	3,380	2,680	3,300	2,620	4,490	5,240	13,000	29,600	32,900	7,460	4,490	3,620
30	3,380	2,340	3,080	2,680	-------	5,430	13,300	30,500	40,500	7,250	4,670	3,620
31	3,380	-------	2,940	2,680	-------	5,430	--------	30,000	--------	7,040	4,860	------

Discharge, in second-feet, of Salmon River at Whitebird, Idaho, 1911–33—Contd.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1932–33												
1	3,620	4,040	4,310	3,460	3,220	3,320	4,310	19,600	61,100	22,300	5,430	3,700
2	3,540	4,130	4,220	3,460	3,220	3,300	4,310	16,700	65,400	17,600	5,240	3,620
3	3,540	4,220	4,220	3,540	3,150	3,460	4,670	15,100	69,800	17,100	5,240	3,620
4	3,540	4,220	4,220	3,460	3,150	3,620	5,430	14,200	72,400	15,700	5,430	3,540
5	3,460	4,130	4,130	3,460	3,000	3,620	6,020	13,300	69,800	15,700	5,430	3,460
6	3,460	4,130	3,960	3,540	2,900	3,460	6,020	12,700	66,100	14,800	5,240	3,380
7	3,540	4,490	3,790	3,700	2,800	3,380	5,820	12,200	63,000	13,900	5,050	3,300
8	4,040	4,490	3,220	3,700	2,600	3,460	5,620	11,900	60,500	13,300	4,860	3,220
9	4,220	4,400	2,190	3,880		3,540	5,240	11,100	67,300	13,000	4,670	3,300
10	4,130	4,400	1,760	3,880	2,500	3,620	4,860	10,500	78,900	12,400	4,670	3,300
11	4,040	4,310	1,700	3,790		3,620	4,490	9,780	76,200	11,900	4,670	3,300
12	4,040	4,040	1,800	3,700		3,790	4,400	9,530	75,600	11,100	4,490	3,300
13	4,040	3,960	1,900	3,540		3,960	4,310	9,290	78,900	10,500	4,310	3,220
14	4,040	4,220	2,000	3,540		4,220	4,310	9,530	80,900	9,780	4,220	3,220
15	4,130	4,310	2,100	3,540		4,220	4,490	11,100	80,200	9,290	4,130	3,460
16	4,400	4,400	2,300	3,540	3,000	4,130	4,860	12,700	77,600	9,050	4,040	3,700
17	5,050	4,860	2,600	3,150		4,130	5,430	13,600	72,400	8,580	3,960	3,880
18	5,240	5,050		2,740		4,220	5,820	14,200	63,600	8,350	3,880	3,790
19	4,670	5,430		2,800		4,220	6,220	13,900	55,100	8,120	3,960	3,790
20	4,490	5,240	3,000	2,740		4,220	6,420	13,600	48,800	7,680	4,130	3,790
21	4,310	4,860		2,940		4,220	6,420	14,200	43,700	7,460	4,220	3,700
22	4,220	4,860	3,100	3,150	3,100	4,130	6,620	15,700	40,500	7,210	4,220	3,700
23	4,220	4,670		3,380		3,960	7,680	18,100	36,900	7,040	4,220	3,700
24	4,310	4,310		3,540	3,380	3,700	9,290	19,600	33,900	6,830	4,130	3,700
25	4,220	3,960		3,460	3,300	3,620	11,300	21,900	31,000	6,620	3,960	3,790
26	4,220	4,040	3,300	3,460	3,220	3,620	13,000	27,700	29,100	6,220	3,880	3,880
27	4,310	4,310		3,380	3,150	3,620	15,400	34,400	26,900	6,220	3,790	3,880
28	4,400	4,310		3,380	3,150	3,790	18,100	35,900	25,600	6,020	3,880	3,880
29	4,490	4,400		3,300	-------	4,040	20,700	35,900	25,600	5,820	3,880	3,880
30	4,310	4,400		3,300	-------	4,220	21,900	41,600	24,300	5,620	3,790	3,880
31	4,220	-------		3,220	-------	4,310	--------	52,200	--------	5,430	3,700	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
1931–32						
October	3,380	2,800	2,950	0.220	0.25	181,000
November	3,540	1,820	3,010	.225	.25	179,000
December	3,300	1,900	2,820	.210	.24	173,000
January	3,150	2,060	2,740	.204	.24	168,000
February	4,490	2,340	2,880	.215	.23	166,000
March	7,460	3,300	4,590	.343	.40	282,000
April	15,700	5,620	10,000	.746	.83	595,000
May	66,100	13,600	38,900	2.90	3.34	2,390,000
June	59,300	28,200	41,400	3.09	3.45	2,460,000
July	27,300	7,040	13,200	0.985	1.14	812,000
August	6,830	3,880	4,940	0.369	.42	304,000
September	4,670	3,460	3,830	0.286	.32	228,000
The year	66,100	1,820	10,900	0.813	11.11	7,940,000
1932–33						
October	5,240	3,460	4,140	.309	.36	255,000
November	5,430	3,960	4,420	.330	.37	263,000
December	4,310	1,700	3,070	.229	.26	189,000
January	3,880	2,740	3,410	.254	.29	210,000
February	3,380	----------	3,000	.224	.23	167,000
March	4,310	3,300	3,830	.286	.33	236,000
April	21,900	4,310	7,780	.581	.65	463,000
May	52,200	9,290	18,400	1.37	1.58	1,130,000
June	80,900	24,300	56,700	4.23	4.72	3,370,000
July	22,300	5,430	10,500	.784	.90	646,000
August	5,430	3,700	4,410	.329	.38	271,000
September	3,880	3,220	3,600	.269	.30	214,000
The year	80,900	1,700	10,200	.761	10.37	7,410,000

NOTE.—Records for year ending Sept. 30, 1932, supersede those published in Water-Supply Paper 738.

VALLEY CREEK AT STANLEY, IDAHO

LOCATION.—Staff gage in sec. 3, T. 10 N., R. 13 E., a quarter of a mile above confluence with Salmon River and three-quarters of a mile above old Stanley post office.

DRAINAGE AREA.—176 square miles.

RECORDS AVAILABLE.—December 1910 to October 1913; May 1921 to September 1933.

DISCHARGE.—Maximum during year, 1,520 second-feet June 9 (gage height, 3.68 feet); minimum (estimated), 40 second-feet Dec. 8–13.

1910–13, 1921–33: Maximum, 1,850 second-feet May 29, 1921 (gage height, 4.4 feet); minimum (estimated), 40 second-feet Nov. 17–30, 1929, and Dec. 8–13, 1932.

REMARKS.—Records good except those estimated because of ice, Dec. 8 to Feb. 20, which are fair. Diversions for irrigation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a 69	86	72			61	a 68	292	740	382	a 112	a 66
2	68	a 86	72			61	a 74	252	772	432	115	63
3	68	83	a 70	a 60	a 62	60	79	271	772	358	a 120	a 66
4	68	a 74	a 68			a 59	70	336	805	358	117	68
5	68	77	77			a 59	81	271	740	336	a 113	a 66
6	68	a 78	a 75			63	73	292	740	336	a 111	65
7	84	75	73			65	68	214	710	313	a 108	a 66
8	84	a 78				66	a 68	197	740	313	104	66
9	a 80	102				65	a 68	182	a1,200	292	a 103	a 63
10	75	79			a 55	66	79	182	1,340	27[illegible]	102	a 61
11	75	a 62	a 40	a 65		a 65	83	182	1,170	252	a 96	58
12	73	90				a 65	66	182	1,090	232	90	a 58
13	72	81				65	77	a 200	1,090	232	a 85	a 58
14	77	77				65	77	252	1,170	214	81	a 58
15	a 81	a 75				65	a 70	271	1,170	197	a 81	a 68
16	a 84	81	a 45		a 60	70	a 75	292	1,170	197	a 81	79
17	86	81				72	86	313	1,090	a 182	83	a 79
18	81	86				a 70	88	252	a1,000	a 172	a 75	79
19	73	a 82				a 69	96	232	a 900	161	68	a 77
20	73	81		a 58		68	a 105	252	a 800	a 160	a 72	75
21	75	a 73	a 55		56	63	a 115	292	a 740	152	a 75	a 73
22	a 76	66			60	60	134	313	680	150	77	72
23	a 77	a 64			65	68	144	336	650	147	a 75	a 74
24	77	a 74			54	68	163	313	620	a 140	73	a 78
25	86	a 90			a 54	a 74	271	432	592	a 136	a 72	84
26	81	88			a 56	a 74	271	432	538	134	72	a 82
27	79	77	a 60		58	63	406	457	510	132	72	81
28	77	77		a 62	58	68	538	484	538	a 127	a 71	a 78
29	a 74	73			------	68	510	484	510	a 120	70	75
30	a 71	72			------	102	406	565	484	115	a 69	a 72
31	66	------			------	72	------	620	------	a 113	68	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	86	66	75.7	0.430	0.50	4,650
November	102	62	78.9	.448	.50	4,690
December	77	----------	55.7	.316	.36	3,420
January	----------	----------	61.4	.349	.40	3,780
February	----------	----------	58.4	.332	.35	3,240
March	102	59	67.1	.381	.44	4,130
April	538	66	150	.852	.95	8,930
May	620	182	311	1.77	2.04	19,100
June	1,340	484	836	4.75	5.30	49,700
July	432	113	222	1.26	1.45	13,600
August	120	68	87.5	.497	.57	5,380
September	84	58	70.3	.399	.45	4,180
The year	1,340	----------	173	.983	13.31	125,000

a Estimated.

YANKEE FORK OF SALMON RIVER NEAR CLAYTON, IDAHO

LOCATION.—Staff gage in sec. 20, T. 11 N., R. 15 E., at Sunbeam Dam, 350 feet above confluence with Salmon River and 18 miles west of Clayton.

DRAINAGE AREA.—195 square miles.

RECORDS AVAILABLE.—May 1921 to September 1933.

DISCHARGE.—Maximum during year (estimated), 1,800 second-feet June 10; minimum (estimated), 30 second-feet Dec. 6–20. Lower discharge may have occurred during this period.

1921–33: Maximum, 3,360 second-feet June 12, 1921 (gage height, 6.79 feet, present datum); minimum (estimated), 10 second-feet Dec. 5, 6, 1927.

REMARKS.—Records fair. Discharge estimated Oct. 29 to Jan. 31, Apr. 23 to June 8, June 10–26, June 28 to July 25, July 27 to Sept. 6, Sept. 8–30; interpolated Oct. 19, 20, 22, Feb. 2, Mar. 4, 17, 22–24, Apr. 5, 14, 20, 21. Discharge June 9, 27, July 26, Sept. 7 results of current-meter measurements. No diversions or regulation above station. Gage-height record furnished by Idaho Power & Mining Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74				38	41	54					
2	69				38	43	60					
3	69		50		37	41	114	340		300	110	
4	69				39	41	182					65
5	69				39	41	126		1,650			
6	69				38	41	69					
7	64				37	41	80					61
8	64			40	36	41	80	280		220	100	
9	69				37	39	52		1,760			
10	69				38	42	63		1,800			
11	64				37	42	60					65
12	64				38	51	52					
13	64		30		39	50	51	230	1,650	160		
14	64				41	52	48					
15	64				38	50	44					
16	64	60			37	50	48					
17	74				39	51	51					
18	74				38	52	54	330	1,050	140	80	70
19	71				41	49	60					
20	67				44	52	68					
21	64				43	49	77					
22	64				38	50	85					
23	63		35	37	41	50		510		150		
24	55				40	50	210		640			
25	56				37	51						65
26	56				39	44				131		
27	64				44	53			446			
28	64		40		41	50	410					
29						51		1,160	390	120	70	
30	60					49						
31						44						

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October			65.2	0.334	0.385	4,010
November			60.0	.308	.344	3,570
December			36.0	.185	.213	2,210
January			38.5	.197	.227	2,370
February	44	36	39.0	.200	.208	2,170
March	53	39	46.8	.240	.277	2,880
April		44	142	.728	.812	8,450
May			485	2.49	2.87	29,800
June	1,800		1,190	6.10	6.81	70,800
July			180	.923	1.06	11,100
August			86.1	.442	.510	5,290
September			65.7	.337	.376	3,910
The year	1,800		203	1.04	14.09	147,000

EAST FORK OF SALMON RIVER NEAR CLAYTON, IDAHO

LOCATION.—Staff gage in NW¼ sec. 1, T. 10 N., R. 18 E., at highway bridge 4 miles above confluence with Salmon River and 7 miles southeast of Clayton.

DRAINAGE AREA.—497 square miles.

RECORDS AVAILABLE.—September 1928 to September 1933.

DISCHARGE.—Maximum during year, 1,690 second-feet June 12 and 15 (gage height, 3.57 feet); minimum (estimated), 35 second-feet Dec. 10 (gage height, 0.48 foot).

1928–33: Maximum, 2,830 second-feet June 25, 1932 (gage height, 4.48 feet); minimum, 29 second-feet Dec. 3, 1928; minimum gage height, 0.38 foot Nov. 23, 1931.

REMARKS.—Records good except those estimated for period of ice effect, Dec. 6 to Mar. 8, which are poor. Several small irrigation diversions above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	96	99				79	172	910	490	122	78
2	120	96	99				79	158	1,070	490	130	80
3	120	99	103		73		82	168	1,290	490	139	83
4	120	93	99				82	178	755	430	139	89
5	120	99	90			72	82	143	830	370	130	74
6	120	106	85				77	126	910	370	122	75
7	120	109	80				77	122	790	432	122	73
8	124	109	70	80			72	107	790	370	115	73
9	128	113	50		65	75	67	111	830	355	118	75
10	137	106	35			73	66	111	990	355	115	80
11	124	106	40			73	63	118	1,480	332	107	83
12	124	113	45			89	69	104	1,690	290	115	83
13	124	106				80	74	118	1,480	290	107	78
14	124	103				73	78	107	1,580	310	104	80
15	124	106	55			73	83	118	1,690	290	104	75
16	124	109				73	83	115	1,480	270	98	71
17	124	106				78	103	118	1,480	252	95	73
18	120	106				73	113	118	1,290	252	89	78
19	120	106				73	120	118	990	252	86	80
20	120	106	70	70	70	68	118	122	830	234	86	80
21	120	103				73	89	130	685	218	89	92
22	120	90				73	85	148	618	218	98	89
23	124	90				73	92	162	618	203	101	83
24	117	90				66	104	183	650	195	104	86
25	106	93				83	115	189	685	172	95	89
26	106	96				83	122	252	685	168	98	95
27	103	99	78	75		83	122	234	618	168	95	83
28	103	90				78	168	252	650	158	86	75
29	103	90			-------	73	203	380	618	148	86	78
30	103	93			-------	78	218	552	552	135	86	80
31	93	-------			-------	80	-------	755	-------	122	86	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	137	93	118	0.237	0.27	7,260
November	113	90	101	.203	.23	6,010
December	103	35	71.4	.144	.17	4,390
January	----------	----------	76.0	.153	.18	4,670
February	----------	----------	69.3	.139	.14	3,850
March	89	66	74.8	.151	.17	4,600
April	218	63	99.5	.200	.22	5,920
May	755	104	187	.376	.43	11,500
June	1,690	552	984	1.98	2.21	58,600
July	490	122	286	.575	.66	17,600
August	139	86	105	.211	.24	6,460
September	95	71	80.4	.162	.18	4,780
The year	1,690	35	187	.376	5.10	136,000

PAHSIMEROI RIVER NEAR MAY, IDAHO

LOCATION.—Staff gage in W½ sec. 25, T. 16 N., R. 20 E., a quarter of a mile below highway bridge on Challis-Salmon River highway, a quarter of a mile above confluence with Salmon River, and 10 miles northwest of May.

RECORDS AVAILABLE.—October 1929 to September 1933.

DISCHARGE.—Maximum during year, 223 second-feet Mar. 2–18; maximum gage height, 2.45 feet Nov. 16–19; minimum, 99 second-feet May 30 (gage height, 1.72 feet).

1930–33: Maximum, 279 second-feet Dec. 10–14, 16, 17, 1929; minimum, 90 second-feet May 18, 1931.

REMARKS.—Records good except those for November and December, which are fair. Numerous diversions above station for irrigation. Discharge estimated Feb. 7–11; interpolated Jan. 1, 2, Apr. 2, 3.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	200	200	200	212	212	212	155	106	124	115	134
2	177	200	200	200	212	223	208	155	106	124	115	134
3	177	200	200	200	212	223	204	155	106	124	115	134
4	177	200	200	200	212	223	200	155	104	124	115	144
5	177	188	200	200	212	223	200	155	106	124	115	134
6	177	200	200	200	212	223	188	155	111	124	124	134
7	177	200	200	212	200	223	188	155	108	124	124	134
8	177	200	200	212	190	223	188	155	115	124	124	134
9	188	200	200	212	180	223	188	144	115	124	124	134
10	188	200	188	212	190	223	177	124	115	124	124	134
11	188	200	188	212	200	223	188	124	124	124	115	144
12	188	212	188	212	212	223	188	124	124	115	124	144
13	188	212	188	212	212	223	188	124	124	115	124	144
14	177	212	188	212	212	223	188	115	144	115	124	144
15	188	212	188	212	212	223	188	134	144	115	124	155
16	188	212	200	212	212	223	188	115	124	124	124	144
17	177	212	200	212	212	223	200	124	124	124	124	144
18	177	212	188	212	212	223	188	124	124	124	124	144
19	188	212	200	212	212	212	177	110	124	115	134	155
20	188	212	200	212	212	212	177	110	134	115	134	155
21	188	212	200	212	212	212	177	113	134	111	134	155
22	200	212	200	212	212	212	177	115	124	111	134	144
23	200	212	200	212	212	212	177	111	124	111	134	144
24	200	212	200	212	212	212	177	113	115	113	124	155
25	212	212	200	212	212	212	177	108	115	115	134	155
26	212	212	200	212	212	200	177	110	124	115	134	155
27	212	200	200	212	212	200	166	104	115	115	134	166
28	200	200	200	200	212	200	166	104	124	115	124	166
29	200	200	200	200	------	200	155	102	124	115	124	166
30	200	212	200	200	------	212	155	99	124	115	134	166
31	200	------	200	212	------	212	------	101	------	115	144	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	212	166	189	11,600
November	212	188	206	12,300
December	200	188	197	12,100
January	212	200	209	12,900
February	212	180	208	11,600
March	223	200	216	13,300
April	212	155	184	10,900
May	155	99	126	7,750
June	144	104	120	7,140
July	124	111	119	7,320
August	144	115	126	7,750
September	166	134	146	8,690
The year	223	99	170	123,000

LEMHI RIVER AT SALMON, IDAHO

LOCATION.—Staff gage in sec. 10, T. 21 N., R. 22 E., 250 feet below highway bridge, 1,000 feet above Kirtly Creek, and 1 mile southeast of Salmon.

RECORDS AVAILABLE.—August 1928 to September 1933.

DISCHARGE.—Maximum during year, 1,090 second-feet June 13–16, maximum gage height 2.92 feet June 14; minimum, 27 second-feet July 27–31 (gage height, 0.95 foot).

1928–33: Maximum (estimated), 1,400 second-feet June 16, 1929; minimum, 14 second-feet July 22, 23, 1931.

REMARKS.—Records good except those estimated because of ice, Dec. 9 to Jan. 3, Jan. 17–25, Feb. 9–28, which are fair. Discharges also estimated June 29, 30; interpolated Apr. 4, 9, 20, May 9, June 5, 22, 24, 26, July 8, 17, Aug. 26, because of missing gage heights. Many diversions for irrigation above station. Salmon Power & Light Co. diverts water for power 700 feet downstream.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	164	301	286		190	226	286	312	296	384	28	62
2	167	307	282	180	186	248	307	307	508	338	29	62
3	175	307	282		197	248	296	307	795	307	31	62
4	175	307	277	190	197	267	274	317	842	286	31	60
5	160	307	277	197	197	277	253	307	842	258	31	59
6	167	312	258	214	190	258	258	307	842	231	31	59
7	201	312	231	231	182	214	253	286	842	205	31	59
8	231	312	214	218	175	222	258	286	795	205	31	59
9	267	317	180	231		209	240	294	795	205	31	59
10	286	317	170	231		214	222	301	842	190	34	59
11	296	317	160	222	130	231	222	286	940	167	34	59
12	277	317	150	218		231	222	267	990	117	34	59
13	267	317	140	218		239	214	267	1,090	92	34	59
14	267	317	110	222		248	222	248	1,090	74	34	59
15	277	317	80	231		239	222	239	1,090	66	32	72
16	338	317	45	222	150	231	239	222	1,090	62	34	82
17	328	333	40	190		239	286	239	990	66	34	112
18	328	333	40	170		231	277	231	842	70	34	134
19	328	328	40	150		239	277	231	750	68	34	134
20	328	317	60	140		239	258	222	621	62	35	134
21	317	296	80	140		239	239	205	621	55	39	147
22	317	307	130	150		235	248	209	547	42	39	157
23	317	307	150	160		231	317	296	473	34	39	167
24	317	296		170		231	301	239	438	34	37	175
25	317	296		170	180	222	286	205	402	30	38	178
26	307	296		175		222	296	222	376	28	44	182
27	301	286	170	182		231	307	277	349	27	50	182
28	301	286		190		231	307	267	361	27	59	182
29	307	286		190	-------	258	317	286	370	27	59	182
30	307	286		190	-------	267	312	312	370	27	59	190
31	307	-------		190	-------	286	-------	307	-------	27	59	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	338	160	272	16,700
November	333	286	308	18,300
December	286	40	1[illegible]	10,000
January	231	140	1[illegible]	11,800
February	-------	-------	1[illegible]	9,220
March	286	209	2[illegible]	14,700
April	317	214	2[illegible]	15,900
May	317	205	2[illegible]	16,500
June	1,090	296	777	42,100
July	384	27	1[illegible]	7,560
August	59	28	37.7	2,320
September	190	59	1[illegible]	6,430
The year	1,090	27	237	172,000

NORTH FORK OF SALMON RIVER AT NORTH FORK, IDAHO

LOCATION.—Staff gage in NE¼ sec. 17, T. 24 N., R. 21 E., a quarter of a mile above mouth, 300 feet above gage used prior to Oct. 1, 1932, 750 feet above bridge on Salmon River highway, and 1,000 feet from North Fork.

DRAINAGE AREA.—214 square miles.

RECORDS AVAILABLE.—October 1929 to September 1933. April to September 1912 at site 6 miles upstream and above mouth of Spring Creek.

DISCHARGE.—Maximum during year, 901 second-feet June 13 (gage height, 4.40 feet); minimum, 11 second-feet Dec. 8 (gage height, 0.06 foot).

1929–33: Maximum, that of June 13, 1933; minimum, that of Dec. 8, 1932.

REMARKS.—Records good except those for estimated periods, Dec. 9 to Mar. 5 and May 31 to June 6, which are fair. Stage-discharge relation affected by ice Dec. 9 to Mar. 5. No diversions.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	51	45				43	203	750	242	53	40
2	34	50	44	35			50	195	850	209	56	39
3	32	48	44			40	57	188	810	193	62	36
4	33	45	43		33		62	172	890	186	60	34
5	33	50	44				54	165	860	170	54	33
6	38	50	44			38	55	158	900	163	57	32
7	50	50	12			47	53	150	864	149	58	32
8	45	50	11			25	52	150	793	149	53	32
9	44	51	15	40		43	42	143	758	142	58	33
10	45	45	20		25	32	42	143	758	135	57	34
11	46	41	23			32	41	122	758	128	50	32
12	45	48				34	44	122	828	122	48	32
13	45	50				35	44	122	901	116	48	33
14	48	50	25			35	43	122	866	109	46	34
15	48	47		35		33	46	143	757	96	42	42
16	53	49		30	30	35	47	150	688	102	40	39
17	52	51				38	80	158	623	90	39	34
18	52	53				38	55	172	563	96	42	35
19	50	54		27		36	73	180	509	90	42	37
20	53	53	30			40	68	188	460	90	42	34
21	53	53				39	66	203	373	90	50	35
22	53	51				38	74	280	353	90	49	36
23	52	48				37	97	280	314	84	49	40
24	50	47				38	109	280	295	78	48	46
25	47	47			35	38	129	299	277	74	48	47
26	47	47	35	33		38	158	407	259	68	51	49
27	55	47				40	180	535	242	64	51	50
28	51	47				41	211	454	295	59	46	48
29	51	47			-------	44	227	430	259	56	45	46
30	49	46			-------	43	211	535	259	56	46	44
31	45	-------			-------	44	-------	660	-------	54	48	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	55	32	46.3	0.216	0.25	2,850
November	54	41	48.9	.229	.26	2,910
December	45	11	31.1	.145	.17	1,910
January	----------	----------	34.5	.161	.19	2,120
February	----------	----------	31.3	.146	.15	1,740
March	47	25	38.1	.178	.21	2,340
April	227	41	83.8	.392	.44	4,990
May	660	122	242	1.13	1.30	14,900
June	901	242	604	2.82	3.15	35,900
July	242	54	115	.537	.62	7,070
August	62	39	49.6	.232	.27	3,050
September	50	32	37.9	.177	.20	2,260
The year	901	11	113	.528	7.21	82,000

MIDDLE FORK OF SALMON RIVER NEAR CAPE HORN, IDAHO

LOCATION.—Water-stage recorder in about sec. 34, T. 13 N., R. 11 E., 1,100 feet below Little Beaver Creek, half a mile below junction of Marsh and Beaver Creeks, and 1½ miles northwest of Cape Horn.

DRAINAGE AREA.—138 square miles (revised).

RECORDS AVAILABLE.—September 1928 to September 1933.

DISCHARGE.—Maximum during year, 2,340 second-feet June 9 (gage height, 6.26 feet); minimum (estimated), 45 second-feet Dec. 7–18.

1928–33: Maximum, that of June 9, 1933; minimum (estimated), 35 second-feet Nov. 26–30, 1929.

REMARKS.—Records good except those estimated, Nov. 25 to Apr. 23, which are poor. No diversions above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	85						201	1,370	436	138	93
2	83	83						195	1,410	402	145	91
3	83	88						181	1,580	377	145	89
4	83	100	80					176	1,540	353	138	86
5	83	86						170	1,410	333	132	85
6	85	83						165	1,370	318	127	85
7	98	85						168	1,370	299	123	86
8	94	100		65			70	155	1,410	314	123	88
9	93	82						141	2,120	292	123	88
10	89	109						136	2,060	267	121	86
11	89	127						136	1,960	249	117	86
12	88	123	45					136	1,910	239	113	86
13	86	82						143	1,960	226	111	85
14	91	80						163	1,960	217	109	88
15	89	141			60	65		187	1,910	210	107	98
16	96	91						195	1,860	201	103	93
17	98	85						195	1,670	195	103	89
18	93	83						187	1,410	190	111	89
19	86	85						190	1,220	184	115	88
20	86	89					90	214	1,080	181	107	86
21	86	101						263	980	173	105	86
22	88	89						310	890	168	103	86
23	86	125		60				337	832	162	100	86
24	94	141					113	415	750	158	98	93
25	94		60				119	546	695	155	98	96
26	89						141	750	645	150	98	94
27	88	85					176	805	582	148	98	93
28	85						220	805	568	148	96	91
29	80				-------		239	920	519	145	94	86
30	82				-------		217	1,040	475	141	94	86
31	85	-------			-------		-------	1,220	-------	138	94	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	98	80	88.2	0.639	0.74	5,420
November	----------	----------	95.1	.689	.77	5,660
December	----------	----------	58.1	.421	.49	3,570
January	----------	----------	62.4	.452	.52	3,840
February	----------	----------	60.0	.435	.45	3,330
March	----------	----------	65.0	.471	.54	4,000
April	239	----------	99.8	.723	.81	5,940
May	1,220	136	350	2.54	2.93	21,500
June	2,120	475	1,320	9.57	17.68	78,600
July	436	138	231	1.67	1.92	14,200
August	145	94	113	.819	.94	6,950
September	98	85	88.7	.643	.72	5,280
The year	2,120	----------	218	1.58	21.51	158,000

BEAR VALLEY CREEK NEAR CAPE HORN, IDAHO

LOCATION.—Water-stage recorder in about sec. 31, T. 13 N., R. 10 E., 250 feet below Fir Creek, 5 miles above mouth, and 7 miles northwest of Cape Horn.
DRAINAGE AREA.—180 square miles.
RECORDS AVAILABLE.—September 1921 to September 1933.
DISCHARGE—Maximum during year, 3,450 second-feet about June 9 (gage height, 5.49 feet, from recorder trace); minimum (estimated), 50 second-feet Dec. 7–18.

1921–33: Maximum, that of June 9, 1933; minimum, 28 second-feet Nov. 11, 1931.

REMARKS.—Records good except those estimated, Nov. 8 to Apr. 24, which are poor, and May 30 to June 27, which are fair. Discharge also estimated Sept. 1–9. No regulation or diversions above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	117						326		485	142	
2	92	112						316		442	145	
3	92	105	90					256	1,940	410	165	
4	92	82						244		379	154	
5	92	114						240		364	142	94
6	92	110						226		350	140	
7	110	108						226		330	135	
8	114			74			80	211	2,360	321	129	
9	110							190		316	132	
10	105							184		298	129	92
11	103							184		277	122	92
12	101		50					184		264	117	92
13	101							200	2,380	252	114	92
14	103	105						233		240	112	92
15	105				68	74		281		229	108	103
16	114							312		226	101	112
17	135							303		218	101	105
18	127							285	1,660	207	105	101
19	112							273		200	119	103
20	103						110	303		190	112	101
21	108							364		187	105	101
22	108							431		181	103	98
23	108			68				458		171	103	101
24	98							583	860	165	101	105
25	105	95	66				200	758		160	96	117
26	127						226	970		154	96	119
27	119						231	1,120		151	98	119
28	117						350	1,120	589	148	98	117
29	110				------		415	1,320	607	145	96	108
30	103				------		395	1,500	536	142	96	103
31	96	------			------		------	1,700	------	142	96	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	135	92	106	0.589	0.68	6,520
November	117	----------	102	.567	.63	6,070
December	----------	----------	64.5	.358	.41	3,970
January	----------	----------	70.9	.394	.45	4,360
February	----------	----------	68.0	.378	.39	3,780
March	----------	----------	74.0	.411	.47	4,550
April	415	----------	135	.750	.84	8,030
May	1,700	184	494	2.74	3.16	30,400
June	----------	536	1,650	9.17	10.23	98,200
July	485	142	250	1.39	1.60	15,400
August	165	96	117	.650	.75	7,190
September	119	92	101	.561	.63	6,010
The year	----------	----------	268	1.49	20.24	194,000

SOUTH FORK OF SALMON RIVER NEAR KNOX, IDAHO

LOCATION.—Staff gage in NW¼ sec. 11, T. 15 N., R. 6 E., one-eighth mile below Curtis Creek, three-quarters of a mile above Warm Lake Creek, 1¼ miles southwest of Knox cabin, and 21 miles northeast of Cascade.

DRAINAGE AREA.—92 square miles.

RECORDS AVAILABLE.—September 1928 to September 1933.

DISCHARGE.—Maximum recorded during year, 1,560 second-feet June 9 (gage height, 4.69 feet); minimum (estimated), 23 second-feet Dec. 5–12.

1928–33: Maximum, that of June 9, 1933; minimum, 16 second-feet Feb. 17, Aug. 19 and 20, 1931.

REMARKS.—Records fair. Gage read about twice a week; discharge interpolated or estimated other dates. Discharge estimated on account of ice Dec. 5 to Mar. 31. No diversions above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a 33		a 38				a 30	67	455	a 230		48
2	33	a 45	a 38				a 32			a 210	a 74	a 42
3			38		a 28		35	a 62	a 600	196		41
4		47	36							a 190		a 36
5	a 33						a 36		878	a 185	76	33
6		a 45						59		179	a 73	a 33
7	36						37	85	a 900		70	33
8	a 37	45	a 23	a 30			a 38			a 160		41
9	a 38	a 45					a 38	a 82	1,560			a 40
10	38	a 45			a 25		40		a 1,200	142	a 64	39
11		49						82	938			
12	a 38	a 48					a 42	a 85		a 120	60	a 39
13		47						a 100	a 800		a 58	
14	38						46	123		107	57	
15	a 40	a 45					a 48	a 123		128		39
16	43		a 27			a 28	50	a 123	630	a 120	a 50	a 38
17								123	a 570	115		37
18	a 50	45					a 50		509			
19		a 44						a 130			50	
20	50	43							a 470	a 105	a 50	a 38
21	45				a 28		50	146			50	
22	a 46						a 54	a 160		111		39
23	47	a 40		a 28			57	a 170	442	a 105	a 46	a 40
24								184	378	99		41
25	a 46								319			
26		39	a 30				a 65	a 250	300	a 94	45	a 40
27	45	39							a 290		52	
28							76	326	282			
29	a 45	a 39					a 74		a 270	92	a 43	37
30							a 70	a 400	a 250	a 82		39
31	45									72		

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October			41.4	0.450	0.52	2,550
November			43.4	.472	.53	2,580
December			28.4	.309	.36	1,750
January			29.0	.315	.36	1,780
February			27.0	.293	.31	1,500
March			28.0	.304	.35	1,720
April	76	30	49.0	.533	.59	2,920
May			155	1.68	1.94	9,530
June	1,560	250	628	6.83	7.62	37,400
July	230	72	129	1.40	1.61	7,930
August	76		56.4	.613	.71	3,470
September	48	33	38.8	.422	.47	2,310
The year	1,560		104	1.13	15.37	75,400

a Estimated or interpolated.

SOUTH FORK OF SALMON RIVER NEAR WARREN, IDAHO

LOCATION.—Staff gage in SE¼ sec. 15, T. 21 N., R. 7 E., 500 feet below 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 1933.

DISCHARGE.—Maximum recorded during period ending Sept. 30, 1931: 410 second-feet July 20, 21, Sept. 10; maximum gage height, 3.10 feet July 20; minimum, 245 second-feet Aug. 28 to Sept. 8; minimum gage height, 2.58 feet Sept. 6, 7.

Maximum during year ending Sept. 30, 1932, 15,100 second-feet May 21 (gage height, 11.72 feet); minimum, 225 second-feet Nov. 22 (gage height, 2.48 feet).

Maximum during year ending Sept. 30, 1933, 20,000 second-feet June 9 (gage height, 13.16 feet); minimum (estimated), 200 second-feet Dec. 9–15; minimum gage height, 2.40 feet Dec. 20, 21.

1931–33: Maximum, that of June 9, 1933; minimum, that of Dec. 9–15, 1932.

REMARKS.—Records good except those estimated because of ice, Nov. 24, Dec. 14–22, 1931, Jan. 24–31, Feb. 1, 2, 11–22, Dec. 9–18, 31, 1932, Jan. 1–24, Feb. 6–22, 1933, which are fair. Discharge also estimated June 19, 1932, July 4, Aug. 2, 1933. No diversions.

Discharge, in second-feet, 1931–33

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1931				1931				1931			
1		370	245	11		285	370	21	410	270	370
2		352	245	12		285	335	22	390	258	352
3		352	245	13		270	300	23	390	258	335
4		352	245	14		270	285	24	390	258	370
5		335	245	15		270	285	25	390	258	390
6		318	245	16		270	285	26	390	258	370
7		318	245	17		270	285	27	390	258	352
8		300	245	18		270	285	28	370	245	335
9		300	390	19		270	352	29	370	245	318
10		285	410	20	410	270	390	30	370	245	318
								31	370	245	

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32												
1	300	370	318	370	340	505	735	2,810	5,350	4,850	1,100	615
2	285	410	335	370	340	480	1,100	3,350	5,350	4,530	1,100	588
3	285	410	335	370	335	455	940	3,350	5,350	4,220	1,020	560
4	285	432	352	285	318	455	940	3,490	5,520	3,770	1,020	560
5	300	410	352	300	318	432	940	3,770	6,980	3,350	940	532
6	318	410	370	300	318	432	940	4,220	6,230	3,070	905	560
7	318	410	370	300	318	410	940	4,530	6,230	2,940	870	532
8	318	532	370	300	318	410	905	5,350	6,230	2,680	835	532
9	300	455	370	300	318	390	905	5,870	6,050	2,680	835	505
10	300	410	370	318	318	390	870	7,170	6,050	2,550	800	505
11	300	370	352	318		370	940	7,770	7,170	2,430	800	505
12	300	245	370	318		370	1,350	8,400	7,980	2,310	800	480
13	300	285	370	318		370	1,850	9,990	9,750	2,310	768	480
14	300	432		318		390	2,430	12,500	9,990	2,680	735	480
15	285	410		318	310	410	2,190	9,990	10,500	2,310	735	455
16	285	390	300	318		410	2,310	9,520	10,500	2,190	705	455
17	285	370		370		432	2,310	8,620	9,990	1,850	705	455
18	285	370		370		455	2,190	9,060	9,520	2,070	675	455
19	285	390		370		1,100	2,070	11,200	8,750	2,310	615	432
20	285	370		370		940	1,850	12,000	7,980	2,430	588	455
21	285	225	350	370	330	768	1,740	15,100	8,400	2,190	588	532
22	352	225		370		705	1,640	11,700	9,290	1,850	588	505
23	455	225	370	370	352	615	1,440	9,290	9,290	1,740	560	480
24	370	350	370		352	615	1,440	7,980	9,290	1,640	560	455
25	390	480	370		352	615	1,440	7,170	8,840	1,540	560	455
26	390	455	370	320	370	588	1,540	6,410	7,370	1,540	560	455
27	370	370	370		432	560	2,310	6,230	6,790	1,350	560	455
28	505	318	370		615	705	2,190	6,230	6,410	1,350	645	455
29	455	300	370		588	735	2,310	5,870	5,870	1,260	735	455
30	410	300	370	340		705	2,550	5,870	5,350	1,180	705	432
31	390		370			705		5,870		1,100	675	

Discharge, in second-feet, of South Fork of Salmon River near Warren, Idaho, 1931–33—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1932-33												
1	432	532	560		390	390	505	2,940	11,000	3,770	835	505
2	432	532	532		370	390	532	2,680	12,000	3,350	860	480
3	432	532	532		370	410	768	2,430	11,700	3,350	905	455
4	432	505	532		370	410	800	2,310	12,000	3,000	835	455
5	432	588	505		370	410	800	2,310	10,500	2,810	800	432
6	432	675	390			410	768	2,070	10,500	2,810	768	432
7	455	675	370			410	735	2,070	10,200	2,550	735	432
8	560	645	235	400		410	645	2,070	11,700	2,430	735	455
9	532	615				410	588	1,740	18,300	2,310	735	455
10	505	605				410	588	1,640	16,000	2,190	705	455
11	505	390			350	432	560	1,540	13,100	2,070	675	455
12	505	370	200			505	532	1,540	13,900	1,850	675	455
13	505	352				505	505	1,640	13,900	1,850	645	432
14	505	410				455	532	1,850	13,900	1,640	615	432
15	560	505				455	588	2,070	13,600	1,540	588	588
16	588	532				455	675	2,430	13,400	1,540	588	615
17	615	560	210			480	735	2,550	11,000	1,440	588	560
18	675	532			370	455	705	2,550	9,520	1,350	615	532
19	588	560	210			455	735	2,430	8,620	1,350	645	560
20	560	615	210	380		455	800	2,430	7,770	1,260	615	505
21	560	588	210		390	455	905	2,810	7,370	1,260	615	505
22	560	560	218		390	432	1,100	3,210	6,980	1,180	615	505
23	560	505	218		390	432	1,540	3,350	6,230	1,100	588	532
24	532	505	218		390	410	1,850	3,770	5,690	1,020	560	560
25	560	560	225	410	390	410	2,190	4,370	5,250	1,020	560	560
26	560	560	235	410	390	410	2,680	6,230	5,010	940	532	560
27	532	560	245	410	370	432	3,350	6,410	4,530	940	532	560
28	532	560	270	410	370	455	3,770	6,230	4,690	905	505	560
29	532	560	352	410	------	480	4,070	6,600	4,530	870	505	532
30	532	560	370	410	------	505	3,630	8,400	4,070	870	505	505
31	505	------	400	390	------	505	------	11,000	------	835	505	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
1931						
July 20–31	410	370	387	0.334	0.15	9,210
August	370	245	284	.245	.28	17,500
September	410	245	315	.272	.30	18,700
The period	----------	----------	----------	----------	----------	45,400
1931–32						
October	505	285	332	.286	.33	20,400
November	532	225	371	.320	.36	22,100
December	370	----------	350	.302	.35	21,500
January	370	285	333	.287	.33	20,500
February	615	----------	348	.300	.32	20,000
March	1,100	370	546	.471	.54	33,600
April	2,550	735	1,580	1.36	1.52	94,000
May	15,100	2,810	7,440	6.41	7.39	457,000
June	10,500	5,350	7,610	6.56	7.32	453,000
July	4,850	1,100	2,400	2.07	2.39	148,000
August	1,100	560	751	.647	.75	46,200
September	615	432	494	.426	.48	29,400
The year	15,100	225	1,880	1.62	22.08	1,370,000
1932–33						
October	675	432	523	.451	.52	32,200
November	675	352	538	.464	.52	32,000
December	560	----------	292	.252	.29	18,000
January	----------	----------	396	.341	.39	24,300
February	390	----------	368	.317	.33	20,400
March	505	390	440	.379	.44	27,100
April	4,070	505	1,270	1.09	1.22	75,600
May	11,000	1,540	3,410	2.94	3.39	210,000
June	18,300	4,070	9,900	8.53	9.52	589,000
July	3,770	835	1,790	1.54	1.78	110,000
August	905	505	651	.561	.65	40,000
September	615	432	502	.433	.48	29,900
The year	18,300	----------	1,670	1.44	19.53	1,210,000

EAST FORK OF SOUTH FORK OF SALMON RIVER AT STIBNITE, IDAHO

LOCATION.—Water-stage recorder in about sec. 14, T. 18 N., R. 9 E., 30 feet below mouth of Meadow Creek, half a mile northeast of Stibnite post office, and 10½ miles above mouth of Johnson Creek.

DRAINAGE AREA.—19.5 square miles.

RECORDS AVAILABLE.—June 1928 to September 1933.

DISCHARGE.—Maximum during year, 369 second-feet June 14 (gage height, 4.49 feet); minimum (estimated), 5 second-feet Dec. 8–11, Feb. 6–10.

1928–33: Maximum, that of June 14, 1933; minimum, 4 second-feet Nov. 10, 1931.

REMARKS.—Records good except those estimated because of ice, Dec. 4 to Mar. 31, which are fair. No diversions above station. Gage-height record furnished by Yellow Pine Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	12	8							58	18	10
2	9	9	8							53	22	10
3	8	10	8							49	21	10
4	8	16							201	44	19	9
5	8	10					7	26	194	42	18	9
6	8	9							198	42	18	9
7	12	10							192	42	17	9
8	10	10							207	42	18	9
9	10	9							304	41	18	9
10	9	16					8	17	317	38	17	9
11	9								296	35		9
12	9								315	35		9
13	9								327	34		8
14	10								343	32	14	9
15	10	8					9	19	343	29	15	11
16	13								319	27	15	11
17	11								281	26	15	10
18	10								237	25	17	11
19	11								207	25	14	10
20	13	9			.6		8	20	185	24	13	9
21	11	9							169	24	14	9
22	11	10							150	22	13	9
23	10	32							133	22	14	9
24	11	24							120	22	13	10
25	10	15					14	53	111	22	13	10
26	10	9							104	21	13	9
27	10	9							96	20	12	10
28	10	9							91	20	12	10
29	9	8							83	19	12	9
30	8	8					29	74		18	12	8
31	18							160		18	12	

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	18	8	10.1	0.518	0.60	621
November	32	8	11.1	.569	.63	660
December			7.1	.364	.42	437
January			6.6	.338	.39	406
February			5.8	.297	.31	322
March			6.0	.308	.36	369
April			11.4	.585	.65	678
May	160		41.3	2.12	2.44	2,540
June	343	74	206	10.6	11.83	12,300
July	58	18	31.3	1.61	1.86	1,920
August	22	12	15.4	.790	.91	947
September	11	8	9.4	.482	.54	559
The year	343		29.7	1.52	20.94	21,800

Estimated or interpolated.

EAST FORK OF SOUTH FORK OF SALMON RIVER NEAR STIBNITE, IDAHO

LOCATION.—Staff gage in about sec. 34, T. 19 N., R. 9 E., 200 feet below mouth of Sugar Creek, 3 miles north of Stibnite post office, and 8½ miles above mouth of Johnson Creek.

DRAINAGE AREA.—42.5 square miles.

RECORDS AVAILABLE.—June 1928 to September 1933.

DISCHARGE.—Maximum during year, 783 second-feet June 15 (gage height, 3.51 feet); minimum (estimated), 12 second-feet Dec. 6–12 and Feb. 7–10.

1928–33: Maximum, that of June 15, 1933; minimum, 10 second-feet Apr. 7, 1929.

REMARKS.—Records good. No diversions above station. Discharge estimated because of ice, Dec. 6–20, Jan. 6, Feb. 7–10. Gage-height record furnished by Yellow Pine Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	19	17	18	14	16	14	63	434	134	38	22
2	17	19	17	18	14	13	16	61	467	114	37	23
3	17	22	17	17	14	13	19	52	467	114	36	22
4	18	30	17	17	14	13	22	52	434	105	35	20
5	18	28	17	18	14	13	23	50	434	99	35	20
6	18	20	12	18	14	13	19	42	434	89	35	22
7	23	20	12	18	12	13	19	40	467	83	35	19
8	22	20	12	16	12	13	19	40	467	83	36	23
9	22	20	12	15	12	13	19	40	638	83	35	22
10	21	20	12	16	12	13	17	39	568	8[illegible]	35	20
11	20	19	12	15	13	13	18	40	638	7[illegible]	33	20
12	19	18	12	15	13	13	14	40	783	73	33	18
13	23	18	15	14	13	14	16	40	710	67	33	17
14	26	18	15	14	13	16	18	50	674	6[illegible]	32	18
15	28	18	15	14	14	15	19	61	783	6[illegible]	29	18
16	28	18	15	14	14	14	19	59	603	6[illegible]	28	28
17	26	18	15	14	14	13	19	54	500	5[illegible]	27	25
18	23	19	15	14	14	13	18	56	500	5[illegible]	29	24
19	22	24	15	14	14	14	18	59	386	5[illegible]	30	24
20	20	20	15	14	14	14	19	62	354	4[illegible]	31	23
21	19	20	18	14	14	14	22	75	293	5[illegible]	31	23
22	18	18	18	14	14	13	32	92	278	5[illegible]	30	23
23	18	18	18	14	14	13	38	105	264	4[illegible]	29	24
24	18	18	17	14	13	14	50	123	235	4[illegible]	28	26
25	18	18	17	14	13	13	63	144	208	4[illegible]	27	24
26	18	18	17	13	16	13	86	156	181	44	28	23
27	18	18	17	13	15	13	105	168	168	42	26	23
28	18	18	17	14	14	13	105	194	168	41	26	22
29	18	18	18	14	-------	14	105	249	156	40	25	22
30	19	18	18	14	-------	14	75	339	156	3[illegible]	24	19
31	19	-------	18	14	-------	14	-------	402	-------	3[illegible]	23	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	28	17	20.3	0.478	0.55	1,250
November	30	18	19.7	.464	.52	1,170
December	18	----------	15.5	.365	.42	953
January	18	13	15.0	.353	.41	922
February	16	----------	13.6	.320	.33	755
March	16	13	13.5	.318	.37	830
April	105	14	34.9	.821	.92	2,080
May	402	39	98.3	2.31	2.66	6,040
June	783	156	428	10.1	11.27	25,500
July	134	38	67.2	1.58	1.82	4,130
August	38	23	30.9	.727	.84	1,900
September	28	17	21.9	.515	.57	1,300
The year	783	----------	64.7	1.52	20.68	46,800

EAST FORK OF SOUTH FORK OF SALMON RIVER NEAR YELLOW PINE, IDAHO

LOCATION.—Water-stage recorder in NE¼ sec. 27, T. 19 N., R. 8 E., 200 feet above Forest Service highway bridge, 1½ miles above Quartz Creek, 2 miles below Profile Creek, 2.8 miles above mouth of Johnson Creek, and 1½ miles east of Yellow Pine.

DRAINAGE AREA.—104 square miles.

RECORDS AVAILABLE.—August 1928 to September 1933.

DISCHARGE.—Maximum during year, 2,050 second-feet June 14 (gage height, 5.26 feet); minimum (estimated), 30 second-feet Dec. 5–12 and Feb. 6–14. 1928–33: Maximum, that of June 14, 1933; minimum, 26 second-feet Oct. 30, 1929.

REMARKS.—Records good except those estimated, December to May, which are fair. No diversions or regulation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	60	51				e40		e1,000	396	115	65
2	57	57	51				43		e1,100	369	123	62
3	57	55	48		e35				1,110	352	150	62
4	56	51	46					e240	1,080	328	e130	59
5	56	57					e50		990	312	e110	59
6	57	59		e40		e35			990	296	101	59
7	78	55						168	990	280	98	60
8	68	57	e30						990	273	101	e62
9	65	59					51		1,430	262	101	e62
10	60	56			e30			e130	1,560	248	94	57
11	60	84							1,400	234	e90	56
12	60	94				34	e55		1,500	220	84	55
13	59	60							1,560	214	84	54
14	66	57						126	1,660	203	82	56
15	63	56				e35			1,630	197	80	65
16	88	56	e35				57	e150	1,500	187	78	e62
17	78	60							1,330	180	76	60
18	70	66							1,140	171	e75	62
19	63	59				38			990	165	e75	62
20	60	57					e70	177	788	156	74	56
21	63	56			e35	e35		203	760	153	78	57
22	63	55		e35				242	705	144	76	55
23	62	76					81	252	678	142	73	59
24	59	162						296	625	136	71	63
25	59	203				34		378	600	131	68	62
26	59	125	e38				e200	525	560	128	e69	62
27	62	59						585	530	123	70	e60
28	62	56				e35		e600	510	120	68	e59
29	57	54			------			e700	470	118	66	57
30	56	54			------		350	e800	441	120	66	55
31	54	------			------		------	e900	------	118	65	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	88	54	62.4	0.600	0.69	3,840
November	203	51	70.5	.678	.76	4,200
December	51	------	36.6	.352	.41	2,250
January	------	------	36.9	.355	.41	2,270
February	------	------	33.4	.321	.33	1,850
March	------	------	35.0	.337	.39	2,150
April	------	40	95.7	.920	1.03	5,690
May	------	------	288	2.77	3.19	17,700
June	1,660	441	1,020	9.81	10.94	60,700
July	396	118	209	2.01	2.32	12,900
August	150	65	86.8	.835	.96	5,340
September	65	54	59.5	.572	.64	3,540
The year	1,660	------	169	1.62	22.07	122,000

e Estimated.

JOHNSON CREEK AT YELLOW PINE, IDAHO

LOCATION.—Water-stage recorder in NE¼ sec. 29, T. 19 N., R. 8 E., 700 feet above mouth and a quarter of a mile southwest of Yellow Pine post office.
DRAINAGE AREA.—213 square miles.
RECORDS AVAILABLE.—August 1928 to September 1933.
DISCHARGE.—Maximum during year, 5,150 second-feet June 9 (gage height, 7.62 feet); minimum, 23 second-feet Dec. 9 (gage height, 0.71 foot).
1928–33: Maximum, that of June 9, 1933; minimum, that of Dec. 9, 1932.
REMARKS.—Records excellent. Discharge estimated Sept. 2. No diversions or regulation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	96	86	71	66	63	63	448	2,560	536	134	79
2	75	96	84	71	66	63	68	415	2,650	538	136	77
3	75	88	84	68	64	63	80	390	2,750	506	154	75
4	75	75	75	68	69	58	80	390	2,510	485	142	73
5	73	100	84	68	66	58	79	382	2,370	440	132	71
6	73	103	61	69	66	63	84	351	2,320	415	127	69
7	103	86	63	69	58	63	82	351	2,230	396	122	71
8	98	94	35	71	59	61	79	325	2,420	374	120	73
9	92	96	30	71	59	69	76	300	4,540	383	120	73
10	88	75	46	71	59	63	73	290	3,850	332	113	73
11	86	63	49	68	61	63	76	286	3,000	314	109	71
12	86	98	49	69	68	63	76	279	3,000	290	105	71
13	80	96	50	69	68	64	73	290	3,000	272	102	68
14	86	90	50	69	66	63	76	321	2,900	259	98	69
15	94	84	50	69	66	63	84	382	2,800	246	94	88
16	136	88	52	66	66	63	94	427	2,600	237	94	92
17	146	92	52	50	64	63	94	427	2,280	227	90	86
18	120	98	56	63	64	63	92	423	1,920	215	94	80
19	103	98	59	71	66	63	94	406	1,680	209	109	82
20	94	100	61	59	66	63	98	448	1,480	200	100	79
21	100	96	63	73	68	63	111	533	1,320	195	96	75
22	98	88	66	68	64	63	132	590	1,220	189	98	77
23	96	68	69	68	64	63	170	600	1,080	183	94	79
24	86	79	69	68	61	61	198	731	1,010	178	88	84
25	92	92	71	66	61	61	243	942	910	170	86	90
26	98	86	69	66	61	63	296	1,320	845	162	86	90
27	100	88	68	68	58	63	406	1,440	761	154	86	90
28	105	90	69	68	58	64	514	1,440	755	149	84	92
29	96	86	71	68	------	63	600	1,720	719	144	80	84
30	94	86	69	68	------	63	519	2,140	652	139	77	77
31	77	------	69	66	------	64	------	2,460	------	139	79	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	146	73	93.6	0.439	0.51	5,760
November	103	63	89.2	.419	.47	5,310
December	86	30	62.2	.292	.34	3,820
January	73	50	67.6	.317	.37	4,160
February	69	58	63.6	.299	.31	3,530
March	69	58	62.8	.295	.34	3,860
April	600	63	160	.751	.84	9,520
May	2,460	279	685	3.22	3.71	42,100
June	4,540	652	2,070	9.72	10.84	123,000
July	586	139	280	1.31	1.51	17,200
August	154	77	105	0.493	0.57	6,460
September	92	68	78.6	.369	.41	4,680
The year	4,540	30	317	1.49	20.22	229,000

GRANDE RONDE RIVER BASIN

GRANDE RONDE RIVER AT LA GRANDE, OREG.

LOCATION.—Water-stage recorder in sec. 35 (revised), T. 2 S., R. 37 E., 2½ miles northwest of La Grande. Zero of gage is 2,831.25 feet above mean sea level by general adjustment of 1929.

RECORDS AVAILABLE.—February 1918 to June 1923; October 1925 to September 1933.

DISCHARGE.—Maximum during year, 2,600 second-feet Apr. 3 (gage height, 5.19 feet); minimum, 11 second-feet Dec. 12–14. (Flow may have been less than 11 second-feet Dec. 10 or 11.)

1918–23, 1925–33: Maximum, 8,880 second-feet Mar. 18, 1932 (gage height, 8.90 feet); minimum, 4 second-feet Sept. 14, 16–20, 1922. Average, 11 years (1918–20, 1921–22, 1925–33), 387 second-feet.

REMARKS.—Records good except those estimated, Nov. 29, 30, Dec. 1, 2, 5–31, Jan. 1 to Mar. 13, which are fair. Stage-discharge relation affected by ice Dec. 5 to Mar. 13. Some small irrigation diversions above station. Records furnished by State engineer

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	24	55	54	57		879	1,500	1,550	182	29	22
2	14	26	60	58	57		1,230	1,930	1,400	162	29	21
3	14	27	62	58	54		1,990	1,820	1,450	144	31	20
4	14	26	60	58	51		1,870	1,870	1,360	140	41	19
5	14	23		58	52		1,600	1,930	1,360	124	46	19
6	14	27		60	54		1,550	1,650	1,190	110	43	19
7	14	33		60	50	290	1,270	1,400	1,040	100	39	21
8	14	38	29	90	55		970	1,230	970	92	36	22
9	14	51		113	51		784	1,110	970	90	35	24
10	15	54		110	54		651	1,040	1,040	90	33	26
11	16	40		97			640	970	900	80	31	26
12	16	34	12	92			759	935	858	69	29	26
13	16	36	12	87			729	935	844	60	27	24
14	16	36	13	87	61	711	900	1,000	778	57	26	26
15	16	40	16	75		645	1,230	1,190	741	53	26	31
16	19	43	24	75		705	1,230	1,270	669	49	25	33
17	22	208	28	68	68	699	1,040	1,400	574	46	24	31
18	23	176	27	68	69	546	865	1,700	475	44	24	29
19	23	113	26	75	73	568	872	1,650	410	43	24	29
20	23	84	28	71	75	872	1,080	1,500	360	41	24	30
21	22	69	35	71	75	844	1,320	1,400	321	39	24	34
22	23	62	37	68	77	546	1,650	1,320	290	38	23	35
23	24	51	38	66	80	440	1,870	1,270	249	36	23	36
24	24	38	43	64	77	375	1,930	1,320	228	35	22	37
25	24	51	51	60	77	385	2,050	1,450	216	34	22	43
26	23	51	62	55	75	455	1,930	1,820	224	32	21	45
27	23	51	64	62	75	645	2,050	1,760	193	31	20	44
28	24	50	62	57	75	1,080	2,050	1,600	240	31	20	43
29	24	51	60	54	------	1,040	1,930	1,600	224	31	19	39
30	24	56	58	52	------	893	1,650	1,760	224	31	20	36
31	25	------	60	54	------	1,000	------	1,760	------	30	21	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	25	14	19.1	1,170
November	208	23	55.6	3,310
December	64	----------	38.6	2,370
January	113	52	70.2	4,320
February	80	50	64.2	3,570
March	1,080	----------	523	32,200
April	2,050	640	1,350	80,300
May	1,930	935	1,450	89,200
June	1,550	193	712	42,400
July	182	30	69.2	4,250
August	46	19	27.6	1,700
September	45	19	29.7	1,770
The year	2,050	----------	369	267,000

GRANDE RONDE RIVER AT RONDOWA, OREG.

LOCATION.—Water-stage recorder in NW¼ sec. 23, T. 3 N., R. 40 E., 500 feet below mouth of Wallowa River at Rondowa. Zero of gage is 2,281.4 feet above mean sea level by railroad company profile, which is referred at La Grande to general adjustment of 1929.

RECORDS AVAILABLE.—October 1926 to September 1933.

DISCHARGE.—Maximum during year, 13,200 second-feet June 16 (gage height, 7.1 feet); minimum, 424 second-feet Oct. 1–3, 5–10 (gage height, 1.09 feet).

1926–33: Maximum, 22,400 second-feet Mar. 18, 1932 (gage height, 9.30 feet); minimum, 250 second-feet Aug. 17, 1931.

REMARKS.—Records fair. Discharge estimated Oct. 19–27, Feb. 28, Mar. 1. Many irrigation diversions above station. Flow regulated by storage in Wallowa and Minam Lakes.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	430	548	837	873	610	700	3,410	6,520	10,200	3,490	642	469
2	430	548	846	882	602	828	3,410	5,900	10,200	3,330	610	469
3	424	548	882	918	594	1,210	4,010	5,630	10,600	3,250	594	476
4	430	548	882	882	586	1,460	4,480	5,400	11,300	3,250	602	482
5	430	540	891	891	578	1,370	4,480	5,400	11,700	3,090	626	482
6	430	570	891	882	578	1,320	4,380	5,290	10,600	3,010	650	482
7	424	610	855	837	578	1,310	4,190	5,180	9,490	2,860	658	482
8	424	610	794	918	586	1,460	3,830	4,870	8,470	2,640	658	482
9	424	682	682	1,220	570	1,500	3,330	4,480	8,800	2,490	650	488
10	424	714	634	1,200	562	1,560	2,940	4,190	12,000	2,350	634	488
11	436	682	626	1,140	586	1,740	2,640	4,010	11,300	2,210	626	488
12	436	658	626	1,040	594	2,490	2,640	3,830	10,900	2,070	610	495
13	430	658	634	954	586	3,410	2,560	3,740	11,700	1,940	586	495
14	430	658	674	909	578	3,250	2,640	3,920	11,300	1,870	570	495
15	430	658	730	864	618	3,250	2,860	4,480	12,000	1,740	548	510
16	430	698	738	794	626	3,410	3,170	4,770	12,800	1,620	525	518
17	436	1,070	738	738	610	3,740	3,250	4,870	11,700	1,470	510	518
18	456	1,560	738	698	602	3,410	3,170	5,180	9,140	1,360	495	525
19		1,470	730	690	618	3,170	3,090	5,080	7,370	1,240	488	525
20		1,300	738	698	618	3,330	3,090	4,970	6,380	1,130	482	525
21		1,160	837	706	602	3,660	3,410	4,870	5,870	1,040	476	525
22		1,080	918	698	594	3,170	3,830	4,970	5,630	972	476	548
23	535	990	918	682	634	2,710	4,570	4,970	5,180	909	469	555
24		918	918	666	650	2,490	5,080	5,080	4,670	864	469	570
25		873	927	658	650	2,350	5,630	5,400	4,480	819	462	586
26		828	945	634	634	2,420	6,520	6,930	4,480	786	462	594
27		794	1,030	634	634	2,710	7,520	7,370	4,380	762	462	602
28	540	786	1,020	634	650	3,010	8,150	7,220	4,380	746	462	602
29	540	819	972	626	------	3,580	8,150	7,370	4,280	722	462	570
30	540	846	945	618	------	3,410	7,520	8,470	3,920	690	462	562
31	540	------	909	618	------	3,580	------	10,200	------	666	462	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	----------	424	475	29,200
November	1,560	540	814	48,400
December	1,030	626	823	50,600
January	1,220	618	813	50,000
February	650	562	605	33,600
March	3,740	700	2,480	152,000
April	8,150	2,560	4,260	253,000
May	10,200	3,740	5,500	338,000
June	12,800	3,920	8,510	506,000
July	3,490	666	1,790	110,000
August	658	462	545	33,500
September	602	469	520	30,900
The year	12,800	424	2,260	1,640,000

MEADOW CREEK NEAR STARKEY, OREG.

LOCATION.—Water-stage recorder in SW¼ sec. 25, T. 3 S., R. 35 E., just above Dark Canyon Creek and 4 miles northeast of Starkey.

RECORDS AVAILABLE.—October 1931 to September 1933.

DISCHARGE.—Maximum during year, 965 second-feet Apr. 3 (gage height, 5.01 feet); minimum (estimated), 1 second-foot Dec. 11–15.

1931–33: Maximum, 2,300 second-feet Mar. 19, 1932 (gage height, 7.04 feet); minimum, 0.9 second-foot Aug. 6–9, 1932.

REMARKS.—Records good except those estimated for February and September, which are poor, and others estimated, which are fair. Small diversions for irrigation above station. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Mar.	Apr.	May	June	July	Aug.
1	3.0	5.5	11			339	416	7[illegible]	9.3	1.7
2	3.0	5.7	13			565	555	6[illegible]	8.4	1.8
3	3.0	5.7	14			785	555	7[illegible]	7.9	
4	3.0	5.1	13			710	615	6[illegible]	7.5	
5	3.0	5.3				610	585	5[illegible]	6.9	
					e 60					e 2.5
6	3.0	6.9				595	465	45	6.1	
7	3.1	7.1				474	393	4[illegible]	5.7	
8		7.5				335	327	4[illegible]	5.5	
9		11				251	288	4[illegible]	5.5	2.1
10		8.6	e 4.0			205	260	43	5.7	
11		6.7			87	200	239	33	5.1	
12		6.9			133	212	230	2[illegible]	4.6	
13		6.7			178	222	239	2[illegible]	4.1	
14		7.1			140	323	251	22	3.7	
15		7.1			164	478	295	1[illegible]	3.4	
16		8.2	1.3		210	452	311	1[illegible]	3.0	
17		15			198	347	e 330	15	2.9	
18		12		15	158	270	e 400	14	2.7	
19	e 4.5	11			176	284	e 375	13	2.9	
20		10			284	416	347	11	2.6	e 1.7
21		9.5			230	530	323	1[illegible]	2.7	
22		9.0			162	655	278	9.7	2.6	
23		7.5			135	685	239	9.3	2.4	
24		7.9	e 9.5		120	685	212	9.5	2.2	
25		8.6			129	685	192	9.3	2.1	
26		8.2			150	620	172	1[illegible]	1.9	
27		8.4			230	595	150	9.5	1.8	
28		8.8			442	545	129	12	1.6	
29		11			355	501	114	12	1.5	
30		12			351	416	100	11	1.7	
31					367		87		1.7	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October		3.0	4.16	256
November	15	5.1	8.33	496
December	14		7.70	473
January			e 17.0	1,050
February			e 15.0	833
March	442		161	9,900
April	785	200	466	27,700
May	615	87	306	18,800
June	76	9.3	27.8	1,650
July	9.3	1.5	4.05	249
August			1.87	115
September			e 2.0	119
The year	785		852	61,600

e Estimated.

CATHERINE CREEK NEAR UNION, OREG.

LOCATION.—Staff gage in SW¼ sec. 2, T. 5 S., R. 40 E., 6 miles southeast of Union.

RECORDS AVAILABLE.—May 1906 to May 1907, August 1911 to December 1912, March to September 1915, February 1918 to August 1919, October 1925 to September 1933.

DISCHARGE.—Maximum during year, 1,240 second-feet June 3 or 4 (gage height, 3.48 feet); minimum (estimated), 14 second-feet Feb. 7.

1906–7, 1911–12, 1915, 1918–19, 1925–33: Maximum, 1,240 second-feet May 21, 1912, and June 3 or 4, 1933; minimum, 4 second-feet Nov. 26, 27, 1930.

REMARKS.—Records good except those estimated, which are fair. A few small diversions for irrigation above station. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	25	52		a 33	a 50	86	376	905	252	52	28
2	22	27	52		a 30	a 75	96	338	1,030	236	52	27
3	20	25	52		27	a 54	146	302	1,030	236	52	27
4	20	25	43		20	a 42	190	302	1,030	236	52	27
5	20	27	46			32	175	302	965	206	56	28
6	22	25	43			25	175	285	785	175	49	27
7	25	27		a 57		25	164	268	680	170	46	27
8	25	25				25	138	252	630	159	43	27
9	23	46				28	123	236	585	153	40	27
10	22	27				27	105	221	630	148	38	27
11	22	22				27	92	206	680	138	35	27
12	22	27				32	84	221	730	123	38	27
13	22	27	a 22			40	84	236	785	110	35	27
14	22	27		35		43	96	338	905	109	38	28
15	22	27		a 32	a 39	59	118	415	905	105	35	28
16	23	28		a 30		76	143	415	905	96	35	32
17	27	175		a 32		80	138	396	680	88	35	32
18	25	90		a 33		62	133	376	540	84	35	32
19	23	75	28	36		56	153	376	477	76	32	35
20	22	66				59	175	376	456	76	32	35
21	22	56				62	236	396	415	76	32	38
22	25	52		a 37		59	302	415	376	73	30	35
23	27	38				52	415	415	338	69	30	32
24	25	38				52	456	540	320	62	28	35
25	25	38		31		48	585	540	320	62	27	38
26	25	38	a 45	a 32	52	59	562	785	302	62	28	35
27	27	38		35	43	62	585	730	285	59	28	32
28	25	43		a 37	a 42	102	630	680	320	59	27	30
29	25	46		a 38	------	109	630	845	302	59	25	28
30	23	40		a 37	------	96	456	1,030	252	59	27	28
31	25	------		a 35	------	88	------	1,030	------	59	27	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	27	20	23.4	1,440
November	175	22	42.3	2,520
December	------	------	36.1	2,220
January	------	------	44.2	2,720
February	------	------	38.1	2,120
March	109	25	55.0	3,380
April	630	84	240	14,800
May	1,030	206	440	27,100
June	1,030	252	610	36,800
July	252	59	117	7,190
August	56	25	36.7	2,260
September	38	27	30.2	1,800
The year	1,030	------	144	104,000

a Estimated.

WALLOWA RIVER ABOVE WALLOWA LAKE, NEAR JOSEPH, OREG.

LOCATION.—Water-stage recorder until June 10 and staff gage thereafter in NE¼ sec. 29, T. 3 S., R. 45 E., 600 feet below junction of East and West Forks of Wallowa River and 6 miles south of Joseph.

RECORDS AVAILABLE.—February 1924 to September 1933 (discontinued).

DISCHARGE.—Maximum during year (estimated), 1,300 second-feet June 15; minimum (estimated), 10 second-feet Dec. 10.

1924–33: Maximum, that of June 15, 1933; minimum, that of Dec. 10, 1932.

REMARKS.—Records good except those estimated, December to March and September, which are fair, and those for May 30 to July 2, which are poor. Water diverted from East Fork for power purposes is returned to river above station; no other diversions above gage. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	30	31	28	a 26	a 18	21	109	461	a 450	112	40
2	28	30	31	30	26	a 24	22	98	500	a 480	112	40
3	28	30	31	a 29	26	a 24	26	90	566	482	112	38
4	28	28	30	a 29	26	28	26	85	580	482	122	37
5	28	31	30	28	26	28	24	83	601	450	118	37
6	30	38		28	26	28	24	78	566	450	101	37
7	31	33		27	26	27	23	76	532	390	97	37
8	31	34		28		23	23	74	532	390	97	37
9	31	34		27		24	23	72	845	379	93	37
10	30	30		27		24	23	72	746	390	87	37
11	27	33		27		22	23	67		357	82	36
12	27	30	a 20	27		20	24	65		335	82	36
13	26	30		26		20	24	67		352	78	35
14	28	31		27	a 18	21	26	78		324	78	35
15	30	33		a 27		21	26	90		313	78	35
16	34	36		a 27		21	26	90		296	70	36
17	34	48		a 26		22	26	88		271	68	36
18	33	46		26		21	24	88		248	68	36
19	31	41	26	23		21	24	85		240	65	36
20	31	39	27	24		21	26	85	a 725	215	62	35
21	31	38	27	26	18	21	30	85		184	60	35
22	31	36	27	26	18	21	36	88		181	55	36
23	31	34	26	26	18	21	42	93		181	52	36
24	31	34	27	26	18	21	55	104		184	51	37
25	28	34	28	26	18	a 21	78	128		188	47	
26	30	33	30	26	18	a 21	96	169		181	46	
27	30	33	30	28	18	21	118	158		181	44	a 35
28	28	36	30	28	18	22	118	158		164	43	
29	30	33	30	27	------	21	112	166		145	43	
30	31	33	28	a 27	------	21	118	a 250		145	42	
31	31	------	28	a 27	------	22	------	430	------	136	41	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	34	26	29.9	1,840
November	48	28	34.2	2,040
December	31	----------	25.1	1,540
January	30	23	26.9	1,650
February	26	----------	20.0	1,110
March	28	18	22.3	1,370
April	118	21	42.9	2,550
May	430	65	112	6,890
June	----------	----------	681	40,500
July	482	136	296	18,200
August	122	41	74.4	4,570
September	40	----------	36.2	2,150
The year	----------	----------	117	84,400

a Estimated.

EAST FORK OF WALLOWA RIVER NEAR JOSEPH, OREG.

LOCATION.—Staff gage in SE¼ sec. 29, T. 3 S., R. 45 E., a quarter of a mile above mouth, 1 mile above Wallowa Lake, and 6 miles south of Joseph.

RECORDS AVAILABLE.—July 1924 to September 1933.

DISCHARGE.—Maximum during year, 138 second-feet June 15 (gage height, 2.10 feet); minimum, 1.0 second-foot Mar. 21, Apr. 6. (Flow may have been less at times in winter.)

1924–33: Maximum, 203 second-feet June 26, 1927 (gage height, 2.20 feet); minimum, 0.1 second-foot Dec. 7, 1929.

REMARKS.—Records fair. Practically entire low-water flow diverted 1 mile upstream for power use. Gage-height record furnished by Inland Power & Light Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	4.3	3.7	3.1	2.8	2.2	2.0	6	27	56	15	7
2	5	4.5	3.9	3.6	2.8	2.5	1.8	6	31	52	15	7
3	4.5	5	3.1	3.7	2.8	2.6	1.9	5	38	52	13	7
4	4.5	4.5	4.1	3.4	2.6	2.5	1.6	5	47	52	15	7
5	e 6	5	3.1	3.6	2.8	2.6	1.8	5	44	53	15	7
6	4.5	6		3.4	2.8	2.4	1.5	5	44	52	14	7
7	4.6	5		3.4	1.7	1.8	1.8	5	44	55	14	7
8	5	5		3.4	2.2	2.0	2.6	5	44	49	15	7
9	5	6		3.1	e 1.5	2.0	3.1	4.1	61	49	13	8
10	5	3.7		2.8	2.2	2.0	e 3.0	3.9	68	45	12	8
11	4.8	7	e 2.0	2.8	1.9	1.8	1.8	3.9	71	45	11	8
12	4.8	5		3.1	2.8	2.0	2.0	3.9	71	41	11	7
13	4.8	5		2.8	2.2	2.0	2.2	4.3	72	38	11	7
14	5	4.5		2.2	1.8	1.7	2.0	5	84	35	10	7
15	4.6	4.5		3.4	2.0	2.0	2.2	6	114	33	9	7
16	6	5	2.8	3.1	3.1	1.8	2.0	6	98	33	8	6
17	5	8	2.6	2.8	1.9	2.0	2.0	6	91	32	8	7
18	4.8	7	3.0	e 2.0	1.9	2.0	1.6	6	106	31	10	7
19	4.8	4.8	2.5	e 2.0	2.4	2.0	1.6	4.8	91	29	8	7
20	4.6	5	3.1	e 2.0	2.0	1.8	1.8	6	78	e 27	10	6
21	4.8	4.3	3.1	e 2.0	1.8	1.6	3.1	6	78	23	6	6
22	4.5	2.5	3.1	2.8	2.8	1.9	3.4	6	78	23	8	6
23	4.5	4.1	3.1	2.5	2.6	1.2	4.1	7	78	23	8	6
24	4.8	4.1	3.7	2.5	2.2	1.8	5	7	76	21	9	7
25	4.5	3.7	4.1	3.0	2.2	1.8	11	9	71	20	9	6
26	5	3.7	4.6	2.8	2.2	2.2	8	14	71	23	8	7
27	4.8	4.6	3.1	2.8	2.2	2.0	7	15	73	17	8	e 7
28	4.8	4.5	3.4	2.8	1.9	1.2	11	15	76	19	7	7
29	4.8	4.5	3.4	3.1	-------	1.8	8	15	76	19	7	8
30	5	3.7	3.2	2.8	-------	1.8	7	20	56	18	7	7
31	5	-------	3.0	2.8	-------	2.0	-------	31	-------	17	7	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	6	4.5	4.85	298
November	8	2.5	4.82	287
December	4.6	-------	2.89	178
January	3.7	2.0	2.89	178
February	3.1	1.5	2.29	127
March	2.6	1.2	1.97	121
April	11	1.5	3.60	214
May	31	3.9	7.96	489
June	114	27	68.6	4,080
July	58	17	36.0	2,210
August	15	6	10.4	640
September	8	6	6.9	411
The year	114	1.2	12.8	9,230

e Estimated.

WALLOWA FALLS POWER PLANT TAILRACE NEAR JOSEPH, OREG.

LOCATION.—Staff gage in SE¼ sec. 29, T. 3 S., R. 45 E., a quarter of a mile above point where channel discharges into West Fork of Wallowa River and 6 miles south of Joseph.

RECORDS AVAILABLE.—August 1924 to September 1933.

DISCHARGE.—Maximum during year, 12 second-feet Dec. 17, 19–22, 24 (gage height, 0.76 foot); no flow at times.

1924–33: Maximum, 17 second-feet Dec. 1, 8, 1930, Jan. 9, 10, 1931.

REMARKS.—Records fair. Flow regulated by discharge through nozzle for impulse wheel in power house. Water diverted at dam on East Fork of Wallowa River into a conduit 1 mile above power house, and discharged into West Fork a quarter of a mile downstream. Gage-height record furnished by Inland Power & Light Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.7	7.0	7.0	7.1	7.4	6.9	7.4	6.9	6.7	6.9	6.7	6.9
2	6.1	6.7	7.0	7.1	7.1	6.9	6.5	6.7	6.7	6.3	6.7	6.9
3	6.7	6.7	6.7	7.6	7.1	6.9	6.9	6.9	6.9	6.5	6.7	6.5
4	6.5	6.9	6.3	7.6	7.1	7.1	6.7	6.7	6.3	6.5	6.7	6.9
5	4.9	6.7	6.9	7.4	6.7	6.7	6.7	6.9	6.7	6.7	6.7	7.1
6	6.9	6.3	6.9	7.4	7.1	6.9	6.7	6.7	6.9	6.7	6.3	6.9
7	6.7	6.9	6.9	7.6	7.4	6.9	6.7	6.5	6.7	6.7	6.7	6.9
8	6.7	6.9	6.9	7.1	7.1	7.1	7.1	6.7	6.7	6.7	6.7	6.9
9	6.1	6.7	7.0	7.6	7.6	7.1	6.3	6.9	6.7	6.3	6.7	6.9
10	6.7	6.7	7.2	7.6	7.4	6.9	6.7	6.9	6.7	6.9	6.7	6.5
11	6.7	6.5	6.9	7.6	7.6	6.9	6.7	6.7	6.5	6.9	6.7	6.9
12	6.7	6.7	6.6	7.4	6.7	6.7	6.7	6.7	6.7	6.7	6.9	6.9
13	6.5	6.5	8.0	7.6	7.4	7.1	6.7	6.7	6.9	6.7	6.3	6.9
14	6.5	6.9	7.8	7.6	7.4	6.9	6.7	6.3	6.7	6.7	6.9	6.9
15	6.5	6.9	7.8	7.1	7.4	6.9	6.7	6.7	6.7	6.9	6.9	6.9
16	6.1	6.9	7.6	7.6	7.1	6.9	6.7	6.7	6.7	6.3	6.7	6.9
17	6.7	6.7	7.8	7.6	7.1	6.9	6.7	6.7	6.7	6.7	6.7	6.5
18	6.7	6.9	7.4	7.6	7.4	6.9	6.9	6.7	6.5	6.9	6.7	6.9
19	6.7	6.9	7.6	7.6	6.7	6.7	6.9	6.9	6.7	6.7	6.7	6.9
20	6.9	6.5	7.6	7.4	7.1	6.9	6.7	6.9	6.7	4.6	6.5	6.9
21	6.7	7.0	7.8	7.4	7.1	6.9	6.7	6.5	6.5	6.7	6.9	6.9
22	6.9	7.0	7.6	6.9	6.9	6.9	6.7	6.9	6.5	6.7	6.9	6.9
23	6.3	6.9	7.6	7.4	6.9	6.9	6.5	6.7	6.5	6.3	6.9	6.9
24	7.0	6.5	7.6	7.4	6.9	6.9	6.7	6.9	6.7	6.7	6.9	6.5
25	6.9	6.9	7.1	7.4	7.1	6.9	6.3	6.7	6.3	6.9	6.9	6.7
26	6.9	7.0	7.1	7.4	6.7	6.5	6.3	6.7	6.5	3.4	6.9	6.9
27	6.9	6.7	7.6	7.4	6.9	6.7	6.7	6.7	6.9	6.7	6.5	6.9
28	6.9	7.0	7.6	7.6	6.9	6.9	6.7	6.3	6.9	6.7	7.1	6.9
29	6.9	7.0	7.6	6.9	------	6.9	6.9	6.9	6.7	6.9	6.9	6.9
30	6.3	6.9	7.4	7.4	------	6.9	6.5	6.5	6.7	6.5	6.9	6.9
31	6.9	------	7.6	7.4	------	6.9	------	6.9	------	6.7	6.7	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	7.0	4.9	6.60	406
November	7.0	6.3	6.79	404
December	8.0	6.3	7.31	449
January	7.6	6.9	7.41	456
February	7.6	6.7	7.12	395
March	7.1	6.5	6.89	424
April	7.4	6.3	6.70	399
May	6.9	6.3	6.73	414
June	6.9	6.3	6.67	397
July	6.9	3.4	6.50	400
August	7.1	6.3	6.75	415
September	7.1	6.5	6.85	408
The year	8.0	3.4	6.86	4,970

HURRICANE CREEK NEAR JOSEPH, OREG.

LOCATION.—Water-stage recorder in NE¼ sec. 3, T. 3 S., R. 44 E., above intake of Moonshine Ditch and 3½ miles southwest of Joseph.

RECORDS AVAILABLE.—April to September 1915; April to September 1933.

DISCHARGE.—Maximum during year, 636 second-feet June 15 (gage height, 3.21 feet); minimum, 11 second-feet Mar. 25 (gage height, 0.32 foot).

1915, 1924–33: Maximum, 716 second-feet May 26, 1928 (gage height at former gage, 2.65 feet); minimum, 10 second-feet Feb. 26–28, 1932.

REMARKS.—Records good except those estimated and those for Feb. 1–20, May 26 to June 14, Sept. 1–24, which are fair. No diversions above station. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	26	29	22	20		12	55	294	24[illegible]	82	32
2	29	25	29	22	20		12	48	308	26[illegible]	82	32
3	29	25	28	22	19	a 13	12	45	340	26[illegible]	86	31
4	29	24	21	22	19		13	45	359	26[illegible]	90	31
5	29	25	a 19	21	20		13	42	355	26[illegible]	82	32
6	30	26	a 19	22	19	12	13	41	336	25[illegible]	74	31
7	31	25	a 18	21	19	12	13	40	300	23[illegible]	71	32
8	30	29	a 18	22	19	12	13	39	311	23[illegible]	69	32
9	29	28	19	22	18	12	13	36	463	23[illegible]	64	33
10	28	25	19	21	18	12	13	36	431	22[illegible]	62	32
11	27	24	20	21	17	12	13	34	411	20[illegible]	59	32
12	27	25	20	21	17	12	13	34	491	21[illegible]	57	32
13	26	26	21	21	16	12	13	35	459	20[illegible]	56	32
14	27	26	22	21	16	12	13	40	493	19[illegible]	54	32
15	27	26	22	20	15	12	13	47	530	18[illegible]	53	34
16	28	28	23	19	15	12	13	46	470	17[illegible]	51	33
17	29	46	23	19	15	12	13	45	430	16[illegible]	50	33
18	28	42	23	18	15	12	13	45	353	15[illegible]	49	33
19	27	39	25	20	15	12	12	43	358	14[illegible]	47	34
20	26	35	25	20	15	12	12	42	335	13[illegible]	46	33
21	26	35	23	20		12	13	43	330	12[illegible]	44	36
22	26	32	23	20		12	14	45	312	123	42	36
23	26	31	23	20		12	19	47	290	12[illegible]	40	33
24	26	31	23	20		12	24	55	286	12[illegible]	39	31
25	26	31	23	20	a 14	12	33	81	308	12[illegible]	39	29
26	26	31	25	20		12	39	111	304	118	39	29
27	26	30	24	20		12	47	104	286	113	38	29
28	26	30	23	20		12	a 54	104	290	10[illegible]	36	28
29	26	29	23	20	-------	12	61	141	261	96	34	29
30	26	29	22	20	-------	12	61	221	240	9[illegible]	33	28
31	26	-------	22	20	-------	12	-------	297	-------	86	32	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	31	26	27.5	1,690
November	46	24	29 5	1,760
December	29	18	22.5	1,380
January	22	18	20 5	1,260
February	20	-------	16 4	911
March	-------	12	12.2	750
April	61	12	20 7	1,230
May	297	34	67.3	4,140
June	530	240	358	21,300
July	265	86	177	10,900
August	90	32	54 8	3,370
September	36	28	31.8	1,890
The year	530	12	69 9	50,600

a Estimated.

LOSTINE RIVER NEAR LOSTINE, OREG.

LOCATION.—Water-stage recorder in NW¼ sec. 34, T. 1 S., R. 43 E., 10 miles above mouth and 3½ miles south of Lostine.

RECORDS AVAILABLE.—August 1912 to March 1914; April to September 1915; July 1925 to September 1933.

DISCHARGE.—Maximum during year, 2,310 second-feet June 16 (gage height, 7.64 feet); minimum, 19 second-feet Mar. 9 (gage height, 0.52 foot).

1912–14, 1915, 1925–33: Maximum, 2,540 second-feet May 27, 1913; minimum, 11 second-feet Feb. 14, 1932.

REMARKS.—Records good except those estimated and those for July 23 to Sept. 30, which are fair. No large diversions above station. Flow regulated to a small extent by storage in Minam Lake Reservoir. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	27	60	e 39	25	24	31	236	1,040	670	118	36
2	28	27	59	38	24	24	31	208	1,080	740	111	35
3	28	26	58	38	25	25	35	186	1,200	792	120	34
4	28	26	57	38	25	24	40	183	1,290	758	134	33
5	27	28	55	38	25	24	42	178	1,340	740	e 120	31
6	27	33	54	38	25	24	44	166	1,120	705	e 100	30
7	29	33	49	36		24	45	158	980	640	93	30
8	28	32		39		23	44	149	960	655	93	30
9	27	41		41		21	44	144	1,380	610	93	30
10	27	40	e 34	38		22	44	138	1,620	595	88	29
11	26	35		33		22	44	130	1,380	520	85	29
12	26	34	30	34		24	44	128	1,620	520	79	28
13	25	34		33	e 23	26	44	135	1,670	505	77	43
14	28	37		32		27	44	160	1,720	460	73	51
15	28	35		30		27	44	204	2,010	430	70	55
16	30	38	e 37	31		27	45	199	1,960	400	66	60
17	31	78				28	47	191	1,620	375	64	58
18	29	110				28	47	193	1,200	325	63	57
19	28	88				28	48	179	1,080	300	60	55
20	28	72		e 31	25	27	48	173	1,040	267	59	52
21	28	65	40		24	28	51	179	1,040	236	58	50
22	28	64	41		23	28	66	188	1,080	220	55	50
23	28	60	41	31	24	27	104	206	940	210	50	51
24	29	58	42	31	24	27	144	239	900	208	47	51
25	28	58	43	31	24	27	228	338	1,000	216	44	51
26	28	56	44	31	24	e 28	286	505	1,000	210	43	51
27	30	57	43	31	24	28	350	505	940	193	41	49
28	30	60	42	30	24	29	388	520	1,000	173	41	48
29	28	64	42	30	-------	30	350	625	810	155	39	51
30	27	63	41	28	-------	30	276	862	688	147	38	54
31	27	-------	e 40	26	-------	31	-------	1,040	-------	129	37	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	31	25	28.0	1,720
November	110	26	49.3	2,930
December	60	----------	42.4	2,610
January	41	26	33.3	2,050
February	----------	----------	23.7	1,320
March	31	21	26.2	1,610
April	388	31	103	6,130
May	1,040	128	279	17,200
June	2,010	688	1,220	72,600
July	792	129	423	26,000
August	134	37	72.9	4,480
September	60	28	43.7	2,600
The year	2,010	21	195	141,000

e Estimated.

BEAR CREEK NEAR WALLOWA, OREG.

LOCATION.—Water-stage recorder in NE¼ sec. 34, T. 1 N., R. 42 E., at bridge 4½ miles southwest of Wallowa.

RECORDS AVAILABLE.—April to September 1915; April 1924 to September 1933. From April 1924 to Nov. 2, 1931, station was 1 mile upstream and above intakes of two irrigation ditches having combined capacity of about 3 second-feet.

DISCHARGE.—Maximum during year, 1,540 second-feet June 10 (gage height, 3.73 feet); minimum, 8 second-feet Oct. 6.

1915, 1924–33: Maximum, that of June 10, 1933; minimum, 4.9 second-feet Nov. 20, 1929.

REMARKS.—Records good except those for November to March, which are fair, and those for April to June 9, which are poor. Small diversions above station. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	12	40	14	17	e 14	46	229	779	278	27	11
2	9	13	41	15	14	e 14	52	194	798	294	25	12
3	9	12	41	14	14	14	68	163	895	278	23	11
4	9	11	39	14	14	14	90	158	1,100	274	33	11
5	9	14	38	17	14	14	96	150	1,070	266	40	11
6	9	20	34	17	14	14	101	142	798	258	33	11
7	9	14		17		15	100	135	619	226	28	11
8	9	15		24		15	92	127	594	197	25	11
9	9	20		23		15	82	117	1,050	177	25	11
10	9	15		21		16	72	112	1,200	169	22	11
11	9	15		21		17	64	106	1,020	149	21	12
12	9	16		20		27	61	103	1,090	135	18	11
13	9	18		20		32	57	112	1,000	127	16	11
14	10	19		20		32	57	140	1,000	114	16	11
15	9	19		20		35	64	190	1,000	105	16	12
16	10	28		20		40	74	200	1,010	94	14	13
17	10	46	e 17		e 12	43	78	194	807	86	14	12
18	10	66				39	74	200	621	76	14	12
19	9	64				37	72	187	552	68	13	12
20	9	56		e 19		38	74	178	532	62	13	12
21	9	50				40	93	e 180	532	56	13	14
22	10	45				38	127	e 195	506	52	13	14
23	10	41				35	172	211	440	47	13	16
24	10	39		19		32	214	250	424	44	12	16
25	10	37		19		30	277	326	440	41	12	16
26	10	35		19		31	348	545	429	40	12	16
27	11	35		19		32	408	561	402	36	12	16
28	10	41		19		38	420	545	458	33	12	16
29	11	44	16	19	-------	43	370	610	355	31	12	16
30	11	43	15	18	-------	45	267	706	290	30	11	15
31	11	-------	14	18	-------	48	-------	895	-------	29	11	-------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	11	9	9.6	590
November	66	11	30.1	1,790
December	41	----------	21.0	1,290
January	24	14	18.7	1,150
February	17	----------	12.5	694
March	48	14	28.9	1,780
April	420	46	139	8,270
May	895	103	263	16,200
June	1,200	290	727	43,300
July	294	29	125	7,690
August	40	11	18.4	1,130
September	16	11	12.8	762
The year	1,200	9	117	84,600

e Estimated.

JOSEPH CREEK AT CHICO, OREG.

LOCATION.—Staff gage in sec. 26, T. 3 N., R. 45 E., half a mile below Chesnimnus Creek and 1 mile south of Chico.

RECORDS AVAILABLE.—June 1931 to September 1933 (discontinued).

DISCHARGE.—Maximum during year, 890 second-feet Mar. 12 (gage height, 4.8 feet); minimum, 3 second-feet July 28, 31.

1931–33: Maximum, 1,220 second-feet Apr. 2 or 3, 1932 (gage height, 5.5 feet); minimum, 3 second-feet Aug. 1–9, 1932, and July 28, 31, 1933.

REMARKS.—Records fair. Monthly mean discharge (except those for December, January, and February, which were estimated) taken as mean of days when gage was read. Small areas irrigated above station; no diversions around gage.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	9						260				6
2			10						28			
3	5				12	16	510		54	13		
4	5	8									8	7
5		8	11					222	68			
6					11	14						
7	5	8					290			9	7	
8	5	8						165				10
9									35			
10	7					20	146			8		
11	7	12									7	9
12		12				580		185	21			
13				12		146						
14	8	13					156			7	7	
15	8	13						185				9
16				12					18			
17	8					146	210			7		
18	8	14									7	10
19		14				83		210	17			
20						156						
21	8	13					305			5	7	
22	8	13						185				12
23									16			
24	8				8	80	395			5		
25	8	12									6	9
26		12						146	14			
27					10	120						7
28	8	13					410			3	6	
29	8	13						128				6
30									16			
31	9					210				3		

Month	Mean	Run-off in acre-feet	Month	Mean	Run-of in acre-feet
October	7.1	437	May	187	11,500
November	11.5	684	June	28.7	1,710
December	a 9	553	July	6.7	412
January	a 11	676	August	6.9	424
February	a 9	500	September	8.5	506
March	143	8,790			
April	303	18,000	The year	61.0	44,200

a Estimated.

ASOTIN CREEK BASIN

ASOTIN CREEK NEAR ASOTIN, WASH.

LOCATION.—Staff gage in sec. 20, T. 10 N., R. 45 E., half a mile above Washington Water Power Co.'s diversion and 8 miles west of Asotin.

DRAINAGE AREA.—171 square miles.

RECORDS AVAILABLE.—August 1928 to September 1933. At practically same site March 1904 to November 1906, August 1910 to October 1911.

DISCHARGE.—Maximum during year, 323 second-feet June 10; maximum gage height, 1.84 feet May 31; minimum, 24 second-feet Oct. 5 (gage height, 0.51 foot).

1904–6, 1910–11, 1928–33: Maximum, 1,180 second-feet Apr. 15, 1904 (gage height, 4.3 feet, former datum); minimum (estimated), 19 second-feet Jan. 18, 21, 22, 1930.

REMARKS.—Records fair except those estimated, Dec. 8 to Jan. 4, Jan. 17, Feb. 5–22, Apr. 27–29, which are poor. No important diversion or regulation above station. Results of several discharge measurements furnished by the Washington Water Power Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	25	32	41	45	38	50	103	235	305	79	34	30
2	25	32	40		38	56	106	189	287	73	34	29
3	25	32	40		36	54	131	145	270	71	36	29
4	27	30	40		34	41	155	135	287	68	41	29
5	25	32	42	40		40	152	135	270	64	43	29
6	27	49	38	40		41	146	121	253	61	41	29
7	27	36	34	56		78	146	114	220	59	39	30
8	28	38		82		45	128	103	220	57	36	32
9	28	46		78		45	108	103	305	56	34	124
10	28	38		73		45	90	96	323	57	34	37
11	28	33		64	30	67	80	90	287	54	32	33
12	28	34		57		67	75	85	253	51	29	29
13	28	36	35	54		85	73	94	270	48	29	29
14	36	40		52		73	71	107	253	48	28	29
15	36	36		51		82	98	158	270	45	27	29
16	30	41		49		88	131	175	253	46	27	29
17	30	93		46		93	126	169	214	44	28	29
18	30	80		43		85	106	178	182	44	27	28
19	30	66		46		85	95	153	151	44	29	28
20	30	58		45	60	82	95	140	132	44	29	28
21	30	51		44		88	120	153	129	43	30	34
22	30	50	30	43		73	146	167	121	41	30	32
23	30	46		42	39	75	186	164	116	41	29	30
24	30	45		40	34	69	222	175	105	40	29	37
25	30	43		40	34	58	269	191	102	39	29	34
26	30	42		40	34	66	269	272	95	36	28	32
27	30	42		40	34	62	280	230	88	36	28	32
28	28	41		40	35	78	290	203	88	35	29	30
29	30	42	65	38	------	108	300	213	88	36	29	29
30	31	42		38	------	103	286	254	84	36	30	29
31	30	------		38	------	108	------	290	------	36	31	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	36	25	29.0	1,780
November	93	30	44.2	2,630
December	------	------	38.2	2,350
January	82	38	48.4	2,980
February	------	------	36.3	2,020
March	108	40	70.6	4,340
April	300	71	153	9,100
May	290	85	162	9,960
June	323	84	201	12,000
July	79	35	49.4	3,040
August	43	27	31.6	1,940
September	124	28	33.6	2,000
The year	323	25	74.7	54,100

CLEARWATER RIVER BASIN

SELWAY RIVER NEAR LOWELL, IDAHO

LOCATION.—Water-stage recorder in sec. 30, T. 32 N., R. 8 E., at O'Hara ranger station, a quarter of a mile above O'Hara Creek and 7 miles above Lowell post office.

DRAINAGE AREA.—1,510 square miles.

RECORDS AVAILABLE.—April 1911 to September 1912; October 1929 to September 1933.

DISCHARGE.—Maximum during year, 33,800 second-feet June 14 (gage height, 13.17 feet); minimum, 396 second-feet Feb. 9 (gage height, 2.41 feet).

1930–33: Maximum, that of June 14, 1933; minimum (estimated), 270 second-feet Jan. 10–15, 1930.

REMARKS.—Records good except those estimated, Nov. 25 to Dec. 5, Dec. 7 to Jan. 4, Jan. 19–25, Feb. 10–28, Aug. 13–27, Sept. 11, which are fair. Result of discharge measurement Jan. 18. No diversions.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	515	797	1,650	840	762	730	2,030	9,720	26,400	7,670	1,080	609
2	503	880	1,650		754	762	2,260	8,810	26,800	6,870	1,060	590
3	497	870	1,740	850	730	851	3,350	8,230	28,700	6,870	1,080	563
4	497	797	2,430		730	851	3,720	7,400	29,200	6,610	1,120	544
5	491	770	2,000	870	730	833	3,440	7,400	27,800	5,870	1,060	532
6	491	1,230	1,670	920	697	815	3,530	6,870	25,900	5,630	1,020	515
7	532	1,180	1,450	920	563	833	3,260	6,610	25,000	5,060	982	515
8	596	1,020	1,100	1,370	550	860	2,920	6,110	24,000	4,620	940	520
9	596	1,130	585	1,480	424	860	2,500	5,750	27,800	4,420	930	532
10	576	993	540	1,310	450	880	2,260	5,630	27,800	4,110	910	550
11	563	833	560	1,130	460	910	2,100	5,400	25,400	3,720	842	540
12	550	797	600	1,040	575	1,020	2,100	5,520	27,300	3,440	806	520
13	563	1,110		982	640	1,370	1,900	5,870	30,200	3,260	780	509
14	667	1,220		982	680	1,450	1,980	6,870	31,200	3,000	770	509
15	754	1,090	680	993	720	1,510	2,500	8,230	30,700	2,830		738
16	746	1,320		880		1,590	2,830	8,810	28,700	2,660	760	738
17	842	1,980		667		1,530	3,190	8,810	25,900	2,420		645
18	770	3,000		448		1,450	3,260	9,110	21,400	2,260		623
19	697	2,830		430	750	1,480	3,350	8,810	18,500	2,180		631
20	638	2,340		600		1,720	3,440	9,110	17,200	2,030	770	603
21	623	2,000	800	800		1,860	3,820	10,000	16,500	1,910	780	674
22	623	2,030				1,660	5,060	11,700	15,700	1,810	800	738
23	667	1,900		960	760	1,520	7,130	12,000	14,200	1,700	820	779
24	682	1,590			790	1,450	8,520	12,400	13,100	1,600	760	738
25	667	1,089			760	1,400	10,400	13,800	12,000	1,520	720	746
26	982	1,130		890	740	1,450	12,000	17,600	11,700	1,440	680	667
27	1,150	1,010		842	740	1,520	12,700	18,000	10,700	1,360	640	652
28	1,090	1,080	820	824	730	1,720	14,200	15,700	10,000	1,280	603	645
29	940	1,080		754	-------	2,030	13,400	16,100	9,110	1,230	583	623
30	900	1,130		738	-------	2,180	11,700	20,100	8,520	1,180	570	638
31	797	-------	-------	770	-------	2,180	-------	24,500	-------	1,130	603	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	1,150	491	684	0.453	0.52	42,100
November	3,000	770	1,340	.887	.99	79,700
December	2,430	540	986	.653	.75	60,600
January	1,480	430	899	.595	.69	55,300
February	790	424	687	.455	.47	38,200
March	2,180	730	1,330	.881	1.02	81,800
April	14,200	1,900	5,160	3.42	3.82	307,000
May	24,500	5,400	10,400	6.89	7.94	640,000
June	31,200	8,520	21,600	14.3	15.95	1,290,000
July	7,670	1,130	3,280	2.17	2.50	202,000
August	1,120	570	823	.545	.63	50,600
September	779	509	614	.407	.45	36,500
The year	31,200	424	3,970	2.63	35.73	2,880,000

CLEARWATER RIVER AT KAMIAH, IDAHO

LOCATION.—Chain gage in sec. 1, T. 33 N., R. 3 E., at highway bridge at Kamiah, 6 miles below mouth of South Fork of Clearwater River.

DRAINAGE AREA.—4,850 square miles.

RECORDS AVAILABLE.—August 1910 to September 1933.

DISCHARGE.—Maximum during year, 81,400 second-feet June 10 (gage height, 16.53 feet); minimum, 865 second-feet Feb. 9 (gage height, 1.97 feet).

1910–33: Maximum, that of June 10, 1933; minimum, 330 second-feet Nov. 22, 1929 (gage height, 1.28 feet).

REMARKS.—Records good except those estimated because of ice, Dec. 11 to Jan. 1, Jan. 18, 20–31, Feb. 4–6, 12–19, which are fair. Result of discharge measurement Jan. 19. Discharge interpolated Oct. 4, 5, Sept. 29. Practically no diversions or regulation above station. Gage-height record furnished by U.S. Weather Bureau, except July 11 to Sept. 30.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,160	1,970	3,430	1,950	1,700	1,760	5,240	23,100	60,400	15,900	1,990	1,220
2	1,160	1,970	3,430	1,970	1,700	2,140	5,240	20,900	61,300	15,000	1,920	1,100
3	1,110	2,110	3,620	1,970	1,700	3,700	8,360	19,800	65,700	12,000	1,920	1,100
4	1,100	2,110	5,070	1,970	1,650	3,320	8,360	18,300	71,200	12,000	1,920	1,100
5	1,080	2,110	4,420	2,110	1,600	2,620	8,360	17,300	65,700	10,500	1,840	1,100
6	1,060	2,110	4,210	2,110	1,400	2,620	8,040	16,800	59,500	9,730	1,840	1,050
7	1,060	2,260	3,620	2,110	2,280	2,460	8,040	17,300	56,100	9,380	1,760	1,050
8	1,010	2,410	2,410	3,430	1,160	2,460	6,820	15,400	52,700	8,690	1,760	1,050
9	1,010	2,900	1,220	3,620	865	2,300	6,270	13,700	62,200	8,690	1,620	1,050
10	1,010	2,730	1,160	3,430	910	2,460	5,740	13,200	81,400	7,720	1,760	1,160
11	1,060	2,410	1,250	3,430	960	2,460	5,240	12,800	62,200	7,110	1,620	1,220
12	1,060	2,410	1,350	2,900	1,200	3,140	5,000	12,800	64,800	6,270	1,620	1,220
13	1,060	2,900		2,730	1,450	3,700	5,240	14,100	71,200	5,740	1,620	1,280
14	1,220	2,900		2,730	1,550	3,900	5,000	15,900	74,900	5,490	1,620	1,340
15	1,510	2,900		2,570	1,550	4,100	6,000	16,800	73,000	5,2'0	1,620	1,620
			1,500									
16	1,970	3,070		1,970		4,100	6,270	22,000	66,600	5,2'0	1,620	1,620
17	1,970	3,070		1,570	1,650	3,900	6,820	21,400	58,700	5,000	1,620	1,480
18	2,110	3,250		1,480		3,700	7,110	21,400	47,800	5,000	1,620	1,480
19	1,700	5,770		1,380		3,700	7,410	20,900	45,400	4,530	1,620	1,480
20	1,510	5,300		1,450	1,690	4,100	8,040	20,900	35,800	4,3'0	1,620	1,550
21	1,450	4,630	1,800	1,650	1,690	4,310	8,690	22,500	33,000	4,3'0	1,550	1,620
22	1,450	4,210			1,690	4,310	9,030	22,500	31,700	3,900	1,550	1,760
23	1,570	3,810			1,760	4,310	15,900	23,100	30,400	3,700	1,620	1,840
24	1,510	3,620		2,000	1,920	4,100	20,300	23,100	29,100	3,5'0	1,480	1,840
25	1,450	3,250			1,840	4,100	22,000	29,100	22,000	3,320	1,480	1,840
26	1,450	3,430		1,900	1,760	3,900	26,600	33,000	22,000	2,790	1,410	1,840
27	2,570	3,070		1,850	1,760	3,700	35,800	35,100	19,800	2,460	1,340	1,760
28	2,260	3,250		1,800	1,760	3,900	34,400	35,800	18,800	2,300	1,280	1,550
29	2,110	3,250	1,900	1,750	-------	4,310	32,400	35,800	16,800	2,300	1,220	1,520
30	2,110	3,430		1,700	-------	5,240	27,800	44,600	16,800	2,140	1,220	1,480
31	1,970	-------		1,700	-------	5,490	-------	55,200	-------	2,140	1,220	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	2,570	1,010	1,480	0.305	0.35	91,000
November	5,770	1,970	3,090	.637	.71	184,000
December	5,070	1,160	2,200	.454	.52	135,000
January	3,620	1,380	2,170	.447	.52	133,000
February	1,920	865	1,540	.318	.33	85,500
March	5,490	1,760	3,560	.734	.85	219,000
April	35,800	5,000	12,200	2.52	2.81	726,000
May	55,200	12,800	23,100	4.76	5.49	1,420,000
June	81,400	16,800	49,200	10.1	11.27	2,930,000
July	15,900	2,140	6,340	1.31	1.51	390,000
August	1,990	1,220	1,610	.332	.38	99,000
September	1,840	1,050	1,410	.291	.32	83,900
The year	81,400	865	8,970	1.85	25.06	6,590,000

CLEARWATER RIVER AT OROFINO, IDAHO

LOCATION—Wire gage in NW¼ sec. 7, T. 36 N., R. 2 E., at highway bridge in Orofino, a quarter of a mile below Orofino Creek.
DRAINAGE AREA.—5,580 square miles.
RECORDS AVAILABLE.—October 1930 to September 1933.
DISCHARGE.—Maximum during year, 81,500 second-feet June 10 (gage height, 20.87 feet); minimum (estimated), 1,000 second-feet Feb. 9
1930–33: Maximum, that of June 10, 1933; minimum, 730 second-feet Aug. 31, Nov. 23, 1931; minimum gage height, 7.31 feet Nov. 23, 1931.
REMARKS.—Records good except those estimated because of ice, in December, January, and February, which are fair. Result of discharge measurement January 20. No diversions above station. Regulation negligible.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,190	1,970	3,530		1,970	2,240	6,870	24,900	56,600	15,200	b2,420	a1,400
2	1,120	1,970	3,530	a2,300	1,970	2,330	6,580	22,100	55,700	a14,000	2,330	a1,400
3	1,120	2,240	5,220		1,970	4,460	8,350	20,500	59,600	a12,500	2,330	a1,330
4	1,060	2,150	4,960		1,970	3,980	9,940	19,000	62,700	11,300	b2,420	1,330
5	1,060	1,970	4,710	2,330	1,970	3,320	9,940	19,400	59,600	11,000	2,520	1,260
6	1,060	1,970	4,710	2,520	1,880	3,110	9,940	18,500	51,000	10,300	2,330	1,260
7	1,120	3,320	b3,710	2,710	1,640	3,110	9,610	17,000	51,900	a9,400	b2,240	1,120
8	1,190	2,710	2,710	3,980	1,400	3,320	8,660	15,700	48,200	8,660	2,150	1,190
9	1,260	2,910	1,640	5,480	a1,000	3,110	7,750	14,800	57,600	8,660	2,150	b1,190
10	1,330	3,320	1,480	5,220	a1,200	3,110	7,160	14,000	75,700	8,050	1,970	1,190
11	1,260	2,910	a1,500	3,980	a1,350	3,320	6,300	14,000	62,700	7,160	1,880	1,260
12	1,260	2,520	a1,600	3,530	1,400	3,980	6,580	14,000	57,600	b6,870	b1,800	1,190
13	1,260	2,710		3,320	1,480	5,220	6,020	14,800	67,900	6,580	1,720	1,190
14	1,330	3,320		3,110	a1,640	5,220	5,750	16,600	65,800	6,300	1,640	b1,220
15	1,800	3,530	a1,700	3,110	a1,800	5,480	7,160	20,500	71,200	5,750	1,640	1,260
16	2,060	3,110		2,910		5,480	8,050	22,600	65,800	5,480	1,560	b1,570
17	2,150	5,220		2,330		6,020	8,660	21,600	60,600	b5,160	1,560	1,880
18	2,150	7,450		2,150		5,480	9,290	22,600	45,600	b4,850	1,480	1,640
19	1,880	7,450		2,150		5,480	8,970	21,600	38,100	b4,530	b1,520	1,640
20	1,720	6,300		2,370	a2,100	5,750	9,290	21,600	34,300	4,220	1,560	1,800
21	1,560	5,480	a2,200			6,580	10,300	21,600	32,100	3,980	1,560	1,640
22	1,480	5,220		a2,350		5,750	12,400	24,900	29,400	b3,760	1,560	a1,800
23	1,480	4,460				5,220	17,500	26,200	27,400	3,530	1,720	a2,200
24	1,640	3,980				4,710	22,100	27,400	25,500	3,530	b1,640	a2,100
25	1,720	3,530		2,330	a2,200	4,460	26,200	29,400	a23,000	3,320	1,560	2,060
26	1,640	3,530		2,330		4,710	30,000	38,100	a21,000	3,110	1,400	1,970
27	2,520	3,320		2,150		5,220	31,400	40,500	19,000	2,910	1,400	1,720
28	2,710	3,320	a2,300	2,240	2,240	5,750	35,800	35,800	17,500	2,710	1,400	1,640
29	b2,480	3,530		b2,150		6,870	35,300	34,300	16,600	b2,650	1,330	1,640
30	2,240	3,530		2,060		7,160	29,400	41,400	a16,000	b2,580	1,330	1,560
31	2,150			1,970		7,160		49,100		2,520	a1,330	

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	2,710	1,060	1,610	0.289	0.33	99,000
November	7,450	1,970	3,630	.651	.73	216,000
December	5,220	1,480	2,540	.455	.52	156,000
January	5,480	1,970	2,740	.491	.57	168,000
February	2,240	1,000	1,870	.335	.35	104,000
March	7,160	2,240	4,750	.851	.98	292,000
April	35,800	5,750	13,700	2.46	2.74	815,000
May	49,100	14,000	24,000	4.30	4.96	1,480,000
June	75,700	16,000	45,900	8.23	9.18	2,730,000
July	15,200	2,520	6,470	1.16	1.34	398,000
August	2,520	1,330	1,790	.321	.37	110,000
September	2,200	1,120	1,520	.272	.30	90,400
The year	75,700	1,000	9,190	1.65	22.37	6,660,000

a Estimated.
b Interpolated.

CLEARWATER RIVER AT SPALDING, IDAHO

LOCATION.—Water-stage recorder in lot 22, sec. 22, T. 36 N., R. 4 W., one-eighth of a mile below mouth of Lapwai Creek and a quarter of a mile north of Spalding.

DRAINAGE AREA.—9,570 square miles.

RECORDS AVAILABLE.—March 1926 to September 1933.

DISCHARGE.—Maximum during year, 136,000 second-feet June 10 (gage height, 20.48 feet); minimum (estimated), 1,900 second-feet Feb. 9.

1926–33: Maximum, that of June 10, 1933; minimum, 850 second-feet Nov. 24, 1929 (gage height, 1.39 feet).

Maximum stage known, 25.6 feet Jan. 5, 1928 (at former gage, 2,300 feet upstream), during severe ice jam.

REMARKS.—Records good except those estimated because of ice, Dec. 11 to Jan. 24, Feb. 9–28, which are fair. Result of discharge measurement shown for Jan. 19. No diversions or regulation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,200	3,670	7,240	4,200	3,700	4,360	16,900	46,800	88,100	25,600	4,940	2,810
2	2,200	3,800	7,700	4,300	3,590	4,820	16,900	41,300	89,200	23,300	4,700	2,810
3	2,200	4,240	11,600	4,300	3,490	6,500	20,500	39,000	93,600	22,200	4,580	2,720
4	2,120	4,360	12,400	4,400	3,490	8,350	24,400	36,100	102,000	21,000	4,700	2,630
5	2,120	3,910	10,800	4,400	3,390	6,940	23,300	36,100	101,000	20,000	4,940	2,540
6	2,120	4,580	10,100	5,300	3,490	6,360	22,200	34,700	91,400	18,400	4,820	2,450
7	2,040	7,540	8,680	5,600	3,290	6,220	22,200	32,000	82,800	16,900	4,580	2,360
8	2,120	5,950	6,220	8,150	2,540	6,790	19,400	30,600	80,600	16,000	4,360	2,360
9	2,280	5,560	3,490	10,500	1,900	6,500	16,400	28,100	98,000	15,500	4,130	2,450
10	2,450	6,500	2,720	9,650	2,150	6,500	14,100	26,800	128,000	14,600	4,020	2,540
11	2,450	5,300	2,750	7,550	2,400	6,940	12,800	26,200	107,000	13,700	3,910	2,630
12	2,360	4,360	2,950	6,600	2,650	9,020	13,300	26,200	98,000	12,400	3,700	2,630
13	2,450	4,360		6,200	3,000	12,800	12,400	27,500	102,000	11,600	3,490	2,450
14	2,720	8,350		5,750	3,200	12,800	12,400	30,600	105,000	11,200	3,390	2,450
15	3,290	7,860	3,150	5,750	3,400	13,300	15,000	37,600	102,000	10,400	3,290	2,630
16	4,020	6,790		5,250		14,100	18,400	42,100	96,900	9,720	3,190	4,020
17	3,910	10,400		4,200		15,000	18,900	40,500	88,100	9,370	3,100	4,130
18	4,130	14,600		3,700		13,700	19,400	44,500	71,400	8,670	3,000	3,390
19	3,700	15,000		3,820	3,700	13,300	19,400	43,800	58,900	8,350	3,000	3,290
20	3,290	12,400		4,500		16,000	20,500	41,000	53,500	7,830	3,100	3,590
21	2,860	10,400		4,550		16,900	22,700	42,400	48,400	7,540	3,100	3,190
22	2,770	9,720	3,950	4,500		14,100	27,500	45,200	46,800	7,290	3,100	3,590
23	2,860	9,370		4,450	3,800	12,000	35,400	46,700	42,800	6,990	3,290	4,240
24	3,200	8,020		4,300	4,000	10,800	42,800	45,200	39,000	6,640	3,290	4,360
25	3,200	6,940		4,240	3,950	10,400	50,100	47,600	35,400	6,220	3,000	4,360
26	3,020	6,640		4,130	3,950	11,600	58,000	60,700	34,000	5,970	2,900	3,910
27	4,070	6,360		4,020	3,950	12,800	58,900	66,400	32,000	5,830	2,810	3,390
28	5,060	6,220	4,150	4,020	4,000	15,000	62,600	59,800	30,000	5,530	2,720	3,290
29	4,500	6,790		3,800	-------	17,900	61,600	57,100	30,600	5,300	2,720	3,290
30	3,970	7,240		3,700	-------	17,900	56,200	64,500	28,100	5,180	2,630	3,290
31	3,770	-------		3,700	-------	17,900	--------	79,600	--------	5,030	2,630	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	5,060	2,040	3,010	0.315	0.36	185,000
November	15,000	3,670	7,240	.757	.84	431,000
December	12,400	2,720	5,100	.533	.61	314,000
January	10,500	3,700	5,150	.538	.62	317,000
February	4,000	1,900	3,400	.355	.37	189,000
March	17,900	4,360	11,200	1.17	1.35	689,000
April	62,600	12,400	27,800	2.90	3.24	1,650,000
May	79,600	26,200	42,800	4.47	5.15	2,630,000
June	128,000	28,100	73,500	7.68	8.57	4,370,000
July	25,600	5,060	11,700	1.22	1.41	719,000
August	4,940	2,630	3,580	.374	.43	220,000
September	4,360	2,360	3,130	.327	.36	186,000
The year	128,000	1,900	16,500	1.72	23.31	11,900,000

LOCHSA RIVER NEAR LOWELL, IDAHO

LOCATION.—Water-stage recorder in SW¼SE¼ sec. 33, T. 33 N., R. 7 E., half a mile below Pete King Creek, 1 mile by river north of Lowell post office, and 1¼ miles above mouth.

DRAINAGE AREA.—1,180 square miles.

RECORDS AVAILABLE.—October 1929 to September 1933. From November 1910 to August 1912 gage-height records were collected at approximately the same site.

DISCHARGE.—Maximum during year, 34,800 second-feet June 10 (gage height, 13.44 feet, present datum); minimum, 342 second-feet Oct. 5–6 (gage height, 1.34 feet, present datum).

1929–33: Maximum, that of June 10, 1933; minimum, 147 second-feet Nov. 21, 1929.

REMARKS.—Records good except those estimated, Nov. 21 to Feb. 28, Aug. 4–6, 14–21, 23–27, which are fair. Stage-discharge relation ice-affected Dec. 11 to Feb. 28. Results of discharge measurement shown for Jan. 17. No diversions.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	368	677	1,230	700	610	863	1,860	7,580	19,000	5,160	844	478
2	362	754	1,230	710	912	1,930	7,110	19,800	4,760	817	463	
3	362	798	1,300	710	1,020	2,580	6,650	21,300	4,570	798	442	
4	348	720	1,830	590	972	3,060	6,430	22,900	4,380	798	422	
5	342	711	1,600	570	873	2,900	6,210	21,300	4,010	798	408	
6	342	1,260	1,520	760	500	798	2,900	5,780	19,000	3,740	760	395
7	348	1,150	1,460	460	771	2,740	5,570	18,000	3,400	728	401	
8	362	951	870	1,230	415	760	2,510	5,160	17,600	3,140	694	401
9	415	1,160	440	1,300	350	736	2,210	4,960	25,700	3,060	669	408
10	408	972	420	1,230	370	771	2,000	4,960	30,600	2,900	645	429
11	395	808	450	1,230	400	771	1,860	4,860	22,900	2,660	613	429
12	395	789	485	1,040	430	902	1,860	5,060	22,500	2,440	589	415
13	442	1,230		980	520	1,190	1,650	5,990	24,100	2,280	574	395
14	621	1,360		980	560	1,150	1,750	6,430	24,100	2,140	570	401
15	798	1,180	540	925	560	1,220	2,140	7,820	23,300	2,000	560	694
16	826	1,480		840	595	1,260	2,360	7,820	21,700	1,860	560	728
17	826	2,360		679		1,260	2,510	7,820	16,700	1,750	570	574
18	702	2,980		460		1,220	2,580	8,060	15,200	1,650	580	559
19	597	2,580		420		1,260	2,660	7,820	13,000	1,560	600	613
20	536	2,360		450		1,460	2,900	7,820	11,800	1,460	620	521
21	507	2,000	645	540	610	1,560	3,400	8,310	11,000	1,380	640	661
22	507	1,950				1,380	4,570	8,810	10,700	1,320	677	661
23	582	1,800		720	630	1,270	5,990	8,810	9,590	1,250	700	702
24	605	1,500			690	1,210	7,340	9,330	8,560	1,190	640	720
25	551	1,030			660	1,200	8,560	10,400	7,820	1,130	580	677
26	931	1,080		680		1,340	9,590	13,300	7,820	1,080	530	582
27	1,030	950		660	630	1,430	9,860	13,300	6,880	1,020	490	559
28	951	1,020		645		1,620	11,000	11,800	6,880	972	463	551
29	844	1,020	680	630		1,860	10,100	12,100	6,430	931	449	559
30	771	1,070		610		1,860	8,810	15,200	5,780	912	442	605
31	686			610		1,930		18,000		873	471	

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	1,030	342	573	0.486	0.56	35,200
November	2,980	677	1,320	1.12	1.25	78,600
December	1,830	420	796	.675	.78	48,900
January	1,300	420	778	.659	.76	47,800
February	690	350	558	.473	.49	31,000
March	1,930	736	1,190	1.01	1.16	73,200
April	11,000	1,650	4,210	3.57	3.98	251,000
May	18,000	4,860	8,360	7.08	8.16	514,000
June	30,600	5,780	16,400	13.9	15.51	976,000
July	5,160	873	2,290	1.94	2.24	141,000
August	844	442	628	.532	.61	38,600
September	728	395	528	.447	.50	31,400
The year	30,600	342	3,130	2.65	36.00	2,270,000

SOUTH FORK OF CLEARWATER RIVER NEAR GRANGEVILLE, IDAHO

LOCATION.—Staff gage in SE¼NW¼ sec. 30, T. 30 N., R. 4 E., below 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 1933.

DISCHARGE.—Maximum during year, 6,090 second-feet June 4 (gage height, 8.60 feet); minimum, 62 second-feet Dec. 10 (gage height, 2.40 feet).

1910–16, 1923–33: Maximum, 9,830 second-feet May 30, 1912 (gage height, 9.7 feet); minimum, 38 second-feet Nov. 22, 1931 (gage height, 2.20 feet).

REMARKS.—Records good except those estimated because of ice, Dec. 11–28, Feb. 10–15, 17–24, which are fair. Diurnal fluctuations caused by operation of power plant just above. No diversions for irrigation.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	139	204	352	237	204	204	495	3,130	5,410	1,400	220	153
2	136	237	352	237	204	204	521	2,740	5,240	1,150	220	136
3	134	237	575	220	220	254	745	2,500	5,750	1,080	220	131
4	131	220	444	220	204	237	805	2,500	5,920	1,000	220	129
5	139	204	420	220	204	237	870	2,740	5,750	935	220	126
6	131	254	331	220	204	237	1,000	2,500	5,240	870	220	136
7	158	311	291	220	176	237	935	2,380	4,760	805	204	126
8	161	272	170	254	188	237	838	2,270	4,600	745	204	131
9	176	469	94	374	161	237	685	2,050	4,440	775	204	136
10	185	352	63	397		237	602	2,050	4,760	715	188	134
11	179	254	66	331		237	575	1,950	4,140	658	188	136
12	179	254		311	170	272	575	1,950	4,140	602	170	129
13	164	331	70	311		331	495	2,160	4,290	575	164	126
14	179	420		291		311	548	2,270	4,140	521	164	129
15	204	311		272		331	805	3,000	3,990	495	161	272
16	237	272	90	254	188	331	838	3,270	3,840	469	161	291
17	311	902	110	237		374	838	3,000	3,270	444	139	220
18	254	1,000		237		374	805	3,130	2,740	420	142	188
19	220	658		272		352	838	2,870	2,500	397	158	254
20	204	521		254		397	935	2,740	2,270	374	155	204
21	188	444		254	188	420	1,150	3,000	2,160	352	204	237
22	188	420		237		397	1,660	3,550	2,050	352	188	254
23	188	352	235	272		374	2,050	3,550	1,850	331	170	291
24	188	291		254		352	2,500	3,840	1,660	311	153	237
25	188	331		237	188	331	2,870	3,990	1,570	291	147	220
26	220	331		220	204	331	3,270	5,080	1,480	291	142	204
27	291	311		220	188	331	3,840	4,920	1,400	272	144	188
28	291	311		220	188	397	4,440	4,440	1,480	254	139	204
29	272	311	237	237	------	469	4,290	4,440	1,480	254	131	204
30	237	352	237	220	------	469	3,990	4,760	1,660	272	129	188
31	220	------	220	220	------	521	------	5,410	------	237	131	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	311	129	196	0.227	0.26	12,100
November	1,000	204	371	.429	.48	22,100
December	575	63	223	.258	.30	13,700
January	397	220	257	.297	.34	15,800
February	220	161	187	.216	.22	10,400
March	521	204	323	.373	.43	19,900
April	4,440	495	1,490	1.72	1.92	88,700
May	5,410	1,950	3,170	3.66	4.22	195,000
June	5,920	1,400	3,470	4.01	4.47	206,000
July	1,400	237	569	.658	.76	35,000
August	220	129	174	.201	.23	10,700
September	291	126	184	.213	.24	10,900
The year	5,920	63	885	1.02	13.87	640,000

NORTH FORK OF CLEARWATER RIVER NEAR AHSAHKA, IDAHO

LOCATION.—Water-stage recorder in SE¼ sec. 26, T. 37 N., R. 1 E., at Bruces Eddy, 1½ miles northeast of Ahsahka and 2 miles above mouth.
DRAINAGE AREA.—2,440 square miles.
RECORDS AVAILABLE.—August 1926 to September 1933.
DISCHARGE.—Maximum during year, 46,700 second-feet June 10 (gage height, 23.88 feet); minimum (estimated), 830 second-feet Feb. 9.
1926–33: Maximum, that of June 10, 1933; minimum, 490 second-feet Jan. 7, 1929.
REMARKS.—Records good except those estimated, Oct. 1, Nov. 18–23, Dec. 9–31, Feb. 4 to Mar. 1, which are fair. Discharge interpolated Oct. 4–6, Sept. 27–29. No diversions or regulations above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	985	1,490	3,140	1,880	1,610	2,000	6,000	18,700	29,000	8,580	2,200	1,410
2	952	1,650	3,960	1,960	1,610	2,400	6,000	17,000	29,000	8,070	2,150	1,370
3	952	1,920	6,450	1,960	1,570	2,600	7,560	15,900	29,500	7,730	2,100	1,330
4	952	1,830	5,560	2,060	1,500	2,750	9,300	15,000	32,400	7,400	2,250	1,260
5	952	1,530	4,730	2,060	1,400	2,450	8,760	15,000	32,400	6,920	2,350	1,220
6	952	3,250	4,340	2,750	1,300	2,250	8,580	14,100	29,000	6,600	2,250	1,190
7	952	3,480	3,600	2,810	1,100	2,250	8,410	13,000	26,200	6,150	2,100	1,190
8	985	2,300	2,250	4,080	920	2,300	7,400	12,400	27,300	5,850	2,010	1,220
9	985	2,600	1,200	4,860	830	2,250	6,450	11,400	38,200	5,700	1,920	1,300
10	1,050	2,450	1,150	4,340	900	2,250	5,560	11,000	44,000	5,700	1,880	1,410
11	1,050	1,920	1,200	3,480	1,000	2,250	5,140	11,000	36,000	5,280	1,780	1,330
12	1,050	1,700	1,300	3,030	1,200	2,450	5,000	11,400	32,700	4,860	1,740	1,300
13	1,160	2,350		2,810	1,500	3,140	4,600	12,400	32,400	4,600	1,700	1,220
14	1,410	4,730		2,600	1,500	3,360	4,730	14,100	32,400	4,340	1,650	1,220
15	1,880	3,600		2,600		3,480	6,150	17,300	31,600	4,210	1,610	1,490
16	1,700	3,250	1,400	2,300		3,720	7,730	18,000	29,800	3,960	1,570	2,100
17	1,610	5,850		1,830		3,720	7,900	17,500	26,500	3,840	1,530	1,740
18	1,570	6,200		1,530		3,720	8,070	18,500	22,000	3,600	1,530	1,490
19	1,330	5,300		1,650	1,550	3,720	8,240	17,300	18,700	3,480	1,530	1,700
20	1,190	4,700		2,100		4,080	8,760	16,100	17,000	3,250	1,530	1,570
21	1,160	4,160		2,150		4,730	10,000	16,800	15,700	3,140	1,530	1,450
22	1,120	3,590	1,700	2,100		4,470	12,800	17,000	15,200	3,140	1,530	1,960
23	1,330	3,030		2,060	1,650	3,960	16,600	17,000	13,900	3,030	1,570	2,200
24	1,490	3,030		1,880	1,750	3,720	19,400	17,800	12,600	2,920	1,490	2,150
25	1,330	2,750		1,830		3,600	22,200	18,500	11,600	2,750	1,410	2,100
26	1,410	2,650		1,780	1,700	3,600	25,100	23,300	11,400	2,650	1,370	1,650
27	1,960	2,500		1,740		3,960	24,800	24,300	10,400	2,550	1,370	1,630
28	1,960	2,600		1,740		4,470	26,700	21,700	10,600	2,450	1,330	1,610
29	1,650	3,140	1,800	1,650	-------	6,000	24,300	21,400	10,600	2,400	1,330	1,590
30	1,490	3,250		1,650	-------	6,150	21,700	24,800	9,480	2,350	1,300	1,570
31	1,410	-------		1,610	-------	6,150	-------	28,400	-------	2,300	1,370	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	1,960	952	1,290	0.529	0.61	79,300
November	6,200	1,490	3,090	1.27	1.42	184,000
December	6,450	1,150	2,260	.926	1.07	139,000
January	4,860	1,530	2,350	.963	1.11	144,000
February	1,750	830	1,450	.594	.62	80,500
March	6,150	2,000	3,480	1.43	1.65	214,000
April	26,700	4,600	11,500	4.71	5.26	684,000
May	28,400	11,000	17,000	6.97	8.04	1,050,000
June	44,000	9,480	23,900	9.80	10.93	1,420,000
July	8,580	2,300	4,510	1.85	2.13	277,000
August	2,350	1,300	1,710	.701	.81	105,000
September	2,200	1,190	1,530	.627	.70	91,000
The year	44,000	830	6,170	2.53	34.35	4,470,000

MISCELLANEOUS DISCHARGE MEASUREMENTS

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow were made at a number of other points, as shown by the following table:

Miscellaneous discharge measurements in Snake River Basin during the year ending Sept. 30, 1933

Date	Stream	Tributary to or diverting from—	Locality	Gage height	Discharge
				Feet	*Sec.-ft.*
July 3	Targhee Creek	Henrys Lake	1 mile below highway crossing near Lake, Idaho.		35.1
14	do	do	do		24.4
14	Combined flow of 5 small creeks.	do	Above Henrys Lake, near Lake, Idaho.		11
June 30	Teton River	Henrys Fork	1 mile below highway bridge near Tetonia, Idaho.	1.24	449
Aug. 25	do	do	do	.98	326
June 27	Trail Creek	Teton River	Above head of String Canal, near Victor, Idaho.		195
July 17	do	do	do	1.13	7.4
Aug. 24	do	do	do	.70	60.8
July 17	String Canal	Trail Creek	At head, near Victor, Idaho	.80	60.9
June 27	Game Creek	do	At highway bridge near Victor, Idaho.		91.4
July 17	do	do	do	.73	34.5
Aug. 24	do	do	do	.44	13.2
July 17	Warm Creek	Teton River	At bridge 3 miles southwest of Victor, Idaho.	.96	24.9
June 30	Fox Creek	do	Above diversions near Idaho-Wyoming State line.		82.8
Aug. 24	do	do	do		8.6
June 30	Darby Creek	do	do		129
Aug. 24	do	do	do		14.5
June 30	Grand Teton Creek	do	do		371
Aug. 24	do	do	do		28.7
June 30	South Leigh Creek	do	do		128
Aug. 24	do	do	do		8.6
June 30	North Leigh Creek	do	do		91.7
Aug. 24	do	do	do		6.0
July 15	Canyon Creek Canal.	Canyon Creek	At head, at Pincock Springs, near Newdale, Idaho.		20.3
Aug. 12	do	do	do		10.2
Oct. 14	Little Lost River	Snake River	Sec. 33, T. 10 N., R. 27 E., 500 feet below weir, half a mile above Wet Creek, and 27 miles northwest of Howe, Idaho.	.50	16.1
Sept. 5	do	do	do	.31	8.20
5	do	do	Sec. 4, T. 9 N., R. 27 E., 900 feet below Wet Creek and 26 miles northwest of Howe, Idaho.		19.7
6	do	do	do		17.6
6	do	do	About sec. 13, T. 7 N., R. 27 E., above Knollin ranch and about 14 miles northwest of Howe, Idaho.		11.2
6	do	do	About sec. 13, T. 7 N., R. 27 E., below Knollin ranch and about 14 miles northwest of Howe, Idaho.		12.5
Oct. 14	Wet Creek	Little Lost River	Sec. 8, T. 9 N., R. 26 E., about 100 feet above mouth of Corral Creek, 30 miles northwest of Howe, Idaho.	.63	12.2
Sept. 5	do	do	do	.50	8.40
5	do	do	Sec. 31, T. 10 N., R. 27 E., above Mulkey-Bassinger diversion, 28 miles northwest of Howe, Idaho.		16.6
5	Corral Creek	Wet Creek	Sec. 8, T. 9 N., R. 26 E., at mouth, above Squaw Creek, 30 miles northwest of Howe, Idaho.	.51	8.22
5	Squaw Creek	Corral Creek	Sec. 8, T. 9 N., R. 26 E., at mouth, 32 miles northwest of Howe, Idaho.		1.98
5	Mudd diversion	Diverts from Wet Creek.	Sec. 32, T. 10 N., R. 27 E., at head gate, 27 miles northwest of Howe, Idaho.		2.06
5	Burlington Savings Bank ditch.	Diverts from Wet Creek.	Sec. 4, T. 9 N., R. 27 E., 27 miles northwest of Howe, Idaho.		*.46
6	Brabec diversion	Diverts from Little Lost River.	About sec. 16, T. 9 N., R. 27 E., 25 miles northwest of Howe, Idaho.		*.83

* Weir measurement.

Miscellaneous discharge measurements in Snake River Basin during the year ending Sept. 30, 1933—Continued

Date	Stream	Tributary to or diverting from—	Locality	Gage height	Discharge
				Feet	*Sec.-ft.*
Sept. 6	Deer Creek	Little Lost River	Sec. 34, T. 9 N., R. 27 E., at mouth, 22 miles northwest of Howe, Idaho.		1.42
6	Badger Creek	do	do		2.14
Oct. 14	Spring Creek	Little Lost River	Sec. 20, T. 7 N., R. 28 E., at mouth, 11 miles northwest of Howe, Idaho.	0.82	18.6
Sept. 6	do	do	do	.80	17.5
6	Teeney Creek	do	Sec. 3, T. 6 N., R. 28 E., at mouth, 8 miles northwest of Howe, Idaho. (No flow in Jones diversion.)		6.19
6	King diversion	Diverts from Little Lost River.	Sec. 2, T. 6 N., R. 28 E., at head gate, two-tenths mile below Teeney Creek, 7 miles northwest of Howe, Idaho.		.90
May 8	Fish Creek	Little Wood River.	Sec. 2, T. 1 N., R. 22 E., at site of former gaging station, 1¾ miles above West Fork of Fish Creek, 12 miles northeast of Carey, Idaho.		36.2
Apr. 18	Fish Creek bypass (overflow channel at U.S. G.S. gaging station).	Fish Creek	Sec. 2, T. 1 N., R. 22 E., 1¼ miles above West Fork of Fish Creek, 12 miles northeast of Carey, Idaho.		4.09
18	West Fork of Fish Creek.	do	Sec. 3, T. 1 N., R. 22 E., 1¾ miles above mouth, about 11 miles northeast of Carey, Idaho.		2.73
May 8	do	do	do		5.01
June 12	do	do	do		.72
July 6	do	do	do		.22
Apr. 13	Blue Lakes outlet.	Snake River	SW¼SW¼ sec. 28, T. 9 S., R. 17 E., near mouth, below highway bridge, and 4 miles north of Twin Falls, Idaho.	1.10	213
July 14	do	do	do	1.17	209
Aug. 24	do	do	do	1.16	207
June 16	Salmon River Canal.	Diverts from Salmon Falls Creek.	Sec. 7, T. 14 S., R. 15 E., half a mile below Salmon River Canal Co.'s reservoir and about 8 miles west of Rogerson, Idaho.	4.72	303
May 24	Ake lateral no. 1	Diverts from Mountain Home Feeder Canal.	Sec. 36, T. 2 S., R. 6 E., at heading, 5 miles north of Mountain Home, Idaho.		.89
24	Ake lateral no. 2	do	do		6.88
13	Walter Butte Spring Creek.	Snake River	Sec. 9, T. 1 S., R. 2 W., 50 feet below springs, 4 miles southwest of Melba, Idaho.		19.2
13	Melba drain ditch	Walter Butte Spring Creek.	Sec. 9, T. 1 S., R. 2 W., at mouth, 4 miles southwest of Melba, Idaho.		[b] 2.0
13	Spring	do	About sec. 5, T. 1 S., R. 2 W., just above Bachman flume and about 4 miles west of Melba, Idaho.		[b] .10
Sept. 24	Middle Fork of Payette River.	Payette River	Sec. 21, T. 9 N., R. 4 E., 800 feet above mouth, near Garden Valley, Idaho.		90.3

[b] Estimated.

INDEX