UNITED STATES DEPARTMENT OF THE INTERIOR
RAY LYMAN WILBUR, Secretary
GEOLOGICAL SURVEY
GEORGE OTIS SMITH, Director

Water-Supply Paper 633

# SURFACE WATER SUPPLY *of the* UNITED STATES 1926

## PART XII
## NORTH PACIFIC SLOPE DRAINAGE BASINS
### B. SNAKE RIVER BASIN

NATHAN C. GROVER, Chief Hydraulic Engineer
G. C. BALDWIN, G. L. PARKER, C. G. PAULSEN
A. B. PURTON, and F. F. HENSHAW
District Engineers

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



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1931

For sale by the Superintendent of Documents, Washington, D. C. - - - - Price 40 cents

# CONTENTS

## ILLUSTRATION

# SURFACE WATER SUPPLY OF SNAKE RIVER BASIN, 1926

## AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting records of measurements of flow made on streams in the United States during the year ending September 30, 1926.

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 in the West. 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, 1895–1927*

| | | | |
|---|---|---|---|
| 1895 | $12, 500. 00 | 1911–1917 | $150, 000. 00 |
| 1896 | 24, 500. 00 | 1918 | 175, 000. 00 |
| 1897–1899 | 50, 000. 00 | 1919 | 148, 244. 10 |
| 1900 | 70, 000. 00 | 1920 | 175, 000. 00 |
| 1901–1902 | 100, 000. 00 | 1921–1923 | 180, 000. 00 |
| 1903–1906 | 200, 000. 00 | 1924–1925 | 170, 000. 00 |
| 1907 | 150, 000. 00 | 1926 | 165, 000. 00 |
| 1908–1910 | 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 10.

Measurements of stream flow have been made at about 5,250 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July, 1926, 1,730 gaging stations were being maintained by the 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.

## 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 section or sections of the stream channel below the gage which determine the stage-discharge relation at the gage. It should be noted that the control may not be the same section or sections at all stages.

The "point of zero flow" for a gaging station is that point on the gage—the gage height—at which water ceases to flow over the control.

## EXPLANATION OF DATA

The data presented in this report cover the year beginning October 1, 1925, and ending September 30, 1926. At the beginning of January in most parts of the United States much of the precipitation in the preceding three months is stored as ground water, in the form

of snow or ice, or in ponds, lakes, and swamps, 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. The general methods are

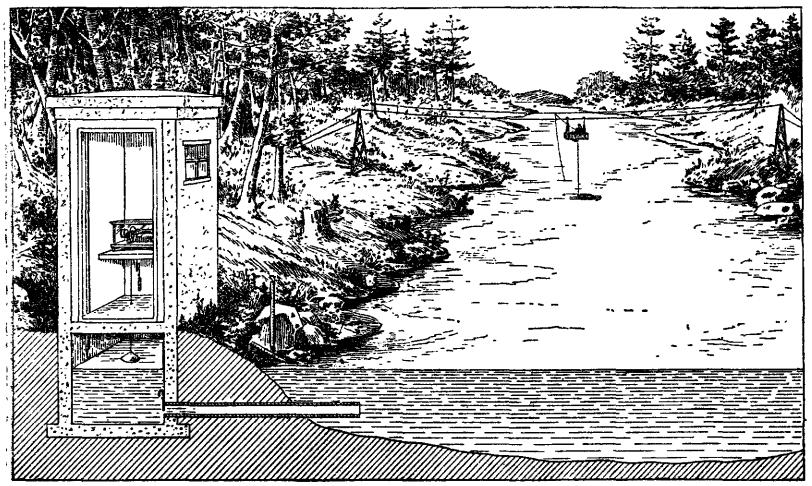

FIGURE 1.—Typical gaging station

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.

From the discharge measurements rating tables are prepared that give the discharge for any stage. 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 giving records of discharge measurements, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off.

If the base data are insufficient to determine the daily discharge, tables giving daily gage height and records of discharge measurements are published.

The description of the station gives, in addition to statements regarding location and equipment, information in regard to any condition that may affect the permanence of the stage-discharge relation, covering such subjects as the occurrence of ice, the use of the stream for log driving, shifting of control, and the cause and effect of backwater; it gives also information as to diversions that decrease the flow at the gage, artificial regulation, maximum and minimum recorded stages, and the accuracy of the records.

The table of daily discharge gives, in general, the discharge in second-feet corresponding to the mean of the gage heights read each day. At stations on streams subject to sudden or rapid diurnal fluctuations 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 at regular intervals during the day or by using the discharge integrator, an instrument operating on the principle of the planimeter and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Maximum" gives the mean flow for the day when the mean gage height was highest. As the gage height is the mean for the day it does not indicate correctly the stage when the water surface was at crest height and the corresponding discharge was consequently larger than given in the maximum column. Likewise, in the column headed "Minimum" the quantity given is the mean flow for the day when the mean gage height was lowest. The column headed "Mean" is the average flow in cubic feet per second during the month. On this average flow computations recorded in the remaining columns, which are defined on page 2, are based.

## ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

A paragraph in the description of the station gives information regarding the (1) permanence of the stage-discharge relation, (2) precision with which the discharge rating curve is defined, (3) refinement of gage readings, (4) frequency of gage readings, and (5) methods of applying daily gage height to the rating table to obtain the daily discharge.

For the rating tables "well defined" indicates, in general, that the rating is probably accurate within 5 per cent; "fairly well defined," within 10 per cent; "poorly defined," within 15 to 25 per cent.

These notes are very general and are based on the plotting of the individual measurements with reference to the mean rating curve.

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. All figures representing "second-feet per square mile" and "run-off in inches" published in the earlier reports by the Survey should be used with caution because of possible inherent sources of error not known to the Survey.

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. To give an idea of the amount of prior appropriations, a paragraph on diversions is presented in each station description. The figures given can not be considered exact, but represent the best information available.

The tables of monthly discharge give only a general idea of the flow at the station and should not be used for other than preliminary estimates; the tables of daily discharge allow 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.

## 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 powers, 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, monographs, professional papers, and annual reports.

The result of stream-flow measurements are now published annually in 12 parts, each part covering an area whose boundaries coincide with natural drainage, as indicated below:

Part I. North Atlantic slope basins (St. John River to York River).
II. South Atlantic slope and eastern Gulf of Mexico basins (James River to the Mississippi).
III. Ohio River Basin.
IV. St. Lawrence River Basin.
V. Upper Mississippi River and Hudson Bay Basins.
VI. Missouri River Basin.
VII. Lower Mississippi River Basin.
VIII. Western Gulf of Mexico basins.
IX. Colorado River Basin.
X. Great Basin.
XI. Pacific slope basins in California.
XII. North Pacific slope basins, in three volumes:
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 of 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, Me., Statehouse.
Boston, Mass., 2500 Customhouse.
Hartford, Conn., 64 State Capitol.
Albany, N. Y., 506 Broadway-Arcade Building.
Trenton, N. J., 710 Trenton Trust Building.
Charlottesville, Va., Brooks Museum, University of Virginia.
South Charleston, W. Va., Naval Ordnance Plant.
Asheville, N. C., 608 City Hall.
Chattanooga, Tenn., 630 Power Building.
Tuscaloosa, Ala., Post Office Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Chicago, Ill., 1503 Consumers Building.
Madison, Wis., 337N State Capitol.
St. Paul, Minn., 202 Old State Capitol.
Topeka, Kans., 23 Federal Building.
Rolla, Mo., Rolla Building, School of Mines and Metallurgy.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Capitol.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo., 403 Post Office Building.
Salt Lake City, Utah, 313 Federal Building.

Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, Federal Building.
Helena, Mont., 415 Power Building.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.
Los Angeles, Calif., 751 South Figueroa Street.
Honolulu, Hawaii, Territorial Office Building.

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

Stream-flow records have been obtained at more than 5,250 points in the United States, and the data obtained have been published in the reports tabulated below:

*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 September, 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 to 1893) | 1888 to Dec. 31, 1893. |
| B 131 | Descriptions, measurements, gage heights, and ratings | 1893 and 1894. |
| 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 and 1896. |
| W 15 | Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas. | 1897. |
| W 16 | Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte, and western United States. | 1897. |
| 19th A, pt. 2 | 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. |

The records at most of the stations discussed in these reports extend over a series of years, and miscellaneous measurements at many points other than regular gaging stations have been made each year. An index of the reports containing records obtained prior to 1904 has been published in Water-Supply Paper 119.

The table following gives, by years and drainage basins, the numbers of the papers on surface-water supply published from 1899 to 1926. 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 for Machias River at Whitneyville, Me., 1903 to 1921, are published in Water-Supply Papers 97, 124, 165, 201, 241, 261, 281, 301, 321, 351, 381, 401, 431, 451, 471, 501, and 521, which contain records for the New England streams from 1903 to 1921. Results of miscellaneous measurements are published by drainage basins.

## *Numbers of water-supply papers containing results of stream measurements, 1889–1926*

[For basins included see p. 3]

| Year | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII-A | XII-B | XII-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 | 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 |

[a] Rating tables and index to Water-Supply Papers 35–39 contained in Water-Supply Paper 39. Tables for monthly discharge for 1899 in Twenty-first Annual Report, Part IV.
[b] James River only.
[c] Gallatin River.
[d] Green and Gunnison Rivers and Grand River above junction with Gunnison.
[e] Mohave 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 for monthly discharge for 1900 in Twenty-second Annual Report Part IV.
[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.
[k] Tributaries of Mississippi 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] Great Basin in California, except Truckee and Carson River Basins.
[s] Below junction with Gila.
[t] Roque, Umpqua, and Siletz Rivers only.

## COOPERATION

During the year ending September 30, 1926, work in the Snake River Basin was carried on in cooperation with the States of Idaho, Oregon, Nevada, and Washington, effected under agreement made between the Director of the United States Geological Survey and the State engineers or other officials and authorized by legislative acts appropriating money.

Special acknowledgments are due to W. G. Swendsen, commissioner of reclamation of Idaho; Rhea Luper, State engineer of Oregon; Robert A. Allen, State engineer of Nevada; and Erle J. Barnes, director, and R. K. Tiffany, supervisor of hydraulics, of the Department of Conservation and Development of Washington, for the efficient manner in which they represented their States in the investigations.

Acknowledgments are due also to the United States Bureau of Reclamation and the United States Indian Service, which permitted the liberal use of data gathered exclusively for them and paid for by them. The United States Weather Bureau and the United States Forest Service furnished hydrometric and climatic data.

The following municipal corporations, private companies, and individuals have aided: City of Boise, city of Pocatello, Idaho Water District No. 36, Idaho Power Co., Weiser Irrigation District, Crane Creek Reservoir Administration Board, Minidoka Irrigation District, Twin Falls Canal Co., North Side Canal Co. (Ltd.), Murtaugh Irrigation District, Love & von Brecht, Southern Idaho Land & Power Co., Grangeville Electric Light & Power Co., Inland Power & Light Co., Warmsprings Irrigation District, Malheur Land Co., water commissioner for Big Lost River, water masters for Big Wood, Little Wood, and Boise Rivers, and Malheur and Wallowa Counties, Oreg.

## DIVISION OF WORK

The data for stations in Wyoming and on Snake River above Milner, Idaho, for the tributaries that enter the river above Idaho Falls, and for a few stations on the lower Blackfoot River and its tributaries, were collected and prepared for publication under the direction of G. C. Baldwin, district engineer, assisted by C. A. McClelland, L. L. Bryan, Mans H. Coffin, Leo K. Homer, C. T. Judah, John H. Reed, and Alfreda Haggerty.

The data for stations in Idaho (except in the upper Snake River Basin), Snake River at Oxbow, Oreg., and in the Salmon Falls Creek Basin in Nevada, were collected and prepared under the direction of C. G. Paulsen, district engineer, assisted by Berkeley Johnson, F. M. Veatch, and Miss E. H. Haugse.

The data for stations in Oregon except Snake River at Oxbow, Oreg., were collected and prepared for publication under the direction

of Fred F. Henshaw, district engineer, assisted by G. H. Canfield, Wendell Dawson, and K. N. Phillips.

The data for the station on Owyhee River near Owyhee, Nev., were collected and prepared for publication under the direction of A. B. Purton, district engineer, assisted by J. W. Mangan, M. T. Wilson, D. M. Corbett, and Miss Lysle Christensen.

The data for Tucannon River near Pomeroy, Wash., were collected and prepared for publication under the direction of G. L. Parker, district engineer, assisted by D. J. F. Calkins, R. B. Kilgore, J. S. Gatewood, L. E. Rydell, and J. M. Rogers.

The manuscript was reviewed and assembled by P. R. Speer.

## GAGING-STATION RECORDS

### SNAKE RIVER

#### JACKSON LAKE AT MORAN, WYO.

LOCATION.—In sec. 18, T. 45 N., R. 114 W., a short distance above gates at outlet of lake Moran, Teton County.

RECORDS AVAILABLE.—June 1, 1909, to September 30, 1926. Records for 1909 and 1910 fragmentary.

GAGE.—Inclined staff on right shore just below engineer's cottage; read by Joseph Markham. Zero of gage, 6,700 feet above sea level.

COOPERATION.—Gage-height record and table showing storage capacity of lake furnished by United States Bureau of Reclamation.

Jackson Lake impounds water for the irrigation of lands in the upper Snake River Valley and in the Minidoka and Twin Falls tracts. It has a capacity of 847,000 acre-feet between the elevations of 6,730 and 6,769 feet, sea-level datum.

*Daily contents, in acre-feet, of Jackson Lake at Moran, Wyo., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 390,910 | 425,410 | 455,320 | 480,030 | 501,470 | 526,070 | 546,870 | 629,890 | 740,840 | 474,760 | 135,370 | 29,540 |
| 2 | 391,790 | 426,310 | 456,460 | 480,720 | 502,400 | 526,770 | 547,570 | 637,820 | 736,400 | 462,390 | 124,980 | 26,930 |
| 3 | 392,900 | 427,660 | 457,370 | 481,410 | 504,010 | 527,470 | 548,510 | 645,760 | 731,200 | 450,550 | 119,410 | 23,800 |
| 4 | 394,020 | 429,020 | 458,510 | 482,100 | 505,630 | 528,160 | 549,910 | 653,490 | 726,010 | 438,720 | 115,500 | 21,890 |
| 5 | 395,140 | 429,920 | 459,420 | 482,780 | 507,250 | 529,090 | 551,320 | 662,450 | 720,090 | 426,310 | 112,160 | 19,980 |
| 6 | 396,480 | 430,820 | 460,330 | 483,470 | 508,180 | 530,020 | 552,490 | 671,170 | 715,180 | 413,470 | 108,440 | 19,280 |
| 7 | 398,040 | 431,720 | 461,010 | 484,160 | 509,110 | 530,730 | 553,420 | 678,960 | 709,280 | 401,620 | 104,560 | 18,240 |
| 8 | 399,610 | 432,630 | 461,930 | 484,850 | 509,800 | 531,430 | 554,370 | 685,300 | 703,390 | 391,570 | 100,900 | 16,680 |
| 8 | 401,170 | 433,530 | 462,620 | 485,550 | 510,500 | 532,360 | 555,550 | 690,910 | 697,250 | 381,820 | 96,690 | 15,990 |
| 10 | 402,740 | 434,430 | 463,300 | 486,240 | 511,430 | 533,070 | 556,490 | 695,780 | 691,400 | 370,970 | 92,650 | 15,130 |
| 11 | 403,860 | 435,560 | 463,990 | 486,930 | 512,360 | 533,770 | 557,430 | 699,210 | 684,080 | 360,440 | 89,360 | 14,270 |
| 12 | 404,970 | 436,910 | 464,680 | 487,620 | 513,290 | 534,470 | 558,370 | 703,140 | 677,010 | 349,700 | 85,000 | 13,240 |
| 13 | 406,090 | 438,270 | 465,370 | 488,320 | 513,990 | 535,170 | 559,550 | 706,340 | 669,230 | 338,840 | 82,110 | 12,380 |
| 14 | 407,210 | 439,410 | 466,050 | 489,010 | 514,680 | 535,870 | 560,960 | 709,770 | 659,300 | 328,640 | 79,950 | 11,350 |
| 15 | 408,330 | 440,540 | 466,740 | 489,700 | 515,610 | 536,580 | 562,140 | 714,190 | 648,400 | 318,110 | 76,330 | 10,490 |
| 16 | 409,450 | 441,450 | 467,430 | 490,390 | 516,310 | 537,280 | 563,790 | 719,600 | 637,580 | 307,160 | 72,360 | 9,630 |
| 17 | 410,340 | 442,360 | 468,350 | 491,090 | 517,240 | 537,980 | 566,150 | 727,000 | 626,280 | 296,120 | 68,410 | 8,600 |
| 18 | 411,460 | 443,270 | 469,030 | 491,780 | 517,940 | 538,680 | 568,740 | 734,420 | 618,860 | 284,870 | 64,480 | 7,740 |
| 19 | 412,580 | 444,180 | 469,720 | 492,470 | 518,630 | 539,380 | 571,800 | 741,830 | 617,190 | 273,980 | 61,630 | 6,710 |
| 20 | 413,690 | 445,090 | 470,410 | 493,160 | 519,560 | 540,090 | 576,510 | 750,770 | 614,320 | 263,920 | 61,100 | 5,670 |

*Daily contents, in acre-feet, of Jackson Lake at Moran, Wyo., for the year ending September 30, 1926—Continued*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 414,810 | 446,000 | 471,100 | 493,860 | 520,260 | 540,550 | 581,260 | 758,980 | 610,020 | 252,550 | 60,920 | 4,640 |
| 22 | 415,710 | 446,910 | 472,240 | 494,550 | 521,190 | 541,020 | 586,710 | 758,980 | 604,530 | 240,590 | 60,380 | 3,610 |
| 23 | 416,610 | 447,820 | 473,160 | 495,240 | 521,890 | 541,720 | 591,690 | 755,250 | 592,170 | 229,780 | 59,670 | 3,100 |
| 24 | 417,520 | 448,960 | 474,300 | 495,930 | 522,580 | 542,190 | 595,250 | 753,010 | 577,700 | 219,220 | 58,070 | 2,580 |
| 25 | 418,420 | 450,090 | 475,220 | 496,620 | 523,280 | 542,660 | 598,340 | 752,010 | 563,320 | 208,960 | 56,280 | 1,720 |
| 26 | 419,320 | 451,000 | 475,910 | 497,320 | 523,980 | 543,130 | 602,140 | 751,510 | 548,740 | 198,170 | 51,830 | 1,030 |
| 27 | 420,670 | 451,910 | 476,600 | 498,010 | 524,680 | 543,830 | 605,960 | 751,760 | 534,240 | 187,480 | 47,260 | 860 |
| 28 | 421,800 | 453,050 | 477,280 | 498,700 | 525,370 | 544,300 | 610,260 | 751,760 | 518,870 | 176,870 | 44,260 | 690 |
| 29 | 422,700 | 453,730 | 477,970 | 499,400 | ------- | 545,000 | 615,520 | 751,510 | 503,550 | 166,150 | 41,800 | 690 |
| 30 | 423,600 | 454,420 | 478,660 | 500,090 | ------- | 545,470 | 621,970 | 749,270 | 488,550 | 155,560 | 38,280 | 1,380 |
| 31 | 424,510 | ------- | 479,340 | 500,780 | ------- | 546,170 | ------- | 745,540 | ------- | 145,010 | 33,540 | ------ |

SNAKE RIVER NEAR MORAN, WYO.

LOCATION.—In sec. 17, T. 45 N., R. 114 W., 1½ miles below Moran post office, Teton County, and United States Bureau of Reclamation dam at outlet of Jackson Lake. No large tributaries between dam and station.

DRAINAGE AREA.—820 square miles.

RECORDS AVAILABLE.—September 21, 1903, to September 30, 1926.

GAGE.—Vertical staff in two sections on left bank. Datum lowered 1.0 foot July 26, 1915. Stevens water-stage recorder installed June 14, 1917, on bank to rear of staff gage. Gage read by Joseph Markham.

DISCHARGE MEASUREMENTS.—Made from cable 100 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed of gravel and boulders. Control practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.86 feet from 9 to 11 p. m. June 28 (discharge, 9,650 second-feet); minimum stage, 0.20 foot from October 1 to March 14 (discharge, 26 second-feet).

1903–1926: Maximum stage recorded, 10.41 feet at 8 p. m. June 12, 1918 (discharge, 15,100 second-feet). Practically no flow during a few days in 1907 and 1909, when gates in Jackson Lake Dam were closed.

ICE.—Stage-discharge relation not affected by ice. Small winter flow from warm springs.

DIVERSIONS.—None between dam and station and practically none above Jackson Lake.

REGULATION.—Flow controlled by operation of gates in Jackson Lake Dam. Storage capacity of reservoir, 847,000 acre-feet.

ACCURACY.—Stage-discharge relation changed May 19. Rating curves well defined. Staff gage read to hundredths once daily October 5 to May 19; operation of water-stage recorder satisfactory for remainder of year. Daily discharge ascertained by applying mean daily gage height to rating table except May 20–23, when shifting-control method was used. Records good.

*Discharge measurements of Snake River near Moran, Wyo., during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 8 | 0.23 | 29.6 | June 22 | 6.30 | 6,430 | Sept. 4 | 3.09 | 1,650 |
| June 21 | 4.97 | 4,030 | June 23 | 7.26 | 8,380 | Sept. 5 | 2.52 | 1,160 |

*Daily discharge, in second-feet, of Snake River near Moran, Wyo., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26 | 29 | 27 | 26 | 26 | 26 | 27 | 40 | 6,000 | 7,940 | 5,480 | 2,160 |
| 2 | 26 | 29 | 27 | 26 | 26 | 26 | 27 | 40 | 6,000 | 7,790 | 4,630 | 1,980 |
| 3 | 26 | 29 | 27 | 26 | 26 | 26 | 29 | 40 | 6,000 | 7,810 | 3,070 | 1,820 |
| 4 | 26 | 29 | 27 | 26 | 26 | 26 | 32 | 40 | 6,020 | 7,790 | 2,630 | 1,650 |
| 5 | 26 | 29 | 27 | 26 | 26 | 26 | 33 | 40 | 6,020 | 7,600 | 2,600 | 1,130 |
| 6 | 26 | 29 | 26 | 26 | 26 | 26 | 34 | 40 | 6,230 | 7,410 | 2,630 | 1,040 |
| 7 | 27 | 29 | 26 | 26 | 26 | 26 | 37 | 37 | 6,420 | 7,410 | 2,640 | 847 |
| 8 | 29 | 29 | 26 | 26 | 26 | 26 | 40 | 34 | 6,400 | 7,290 | 2,640 | 869 |
| 9 | 29 | 29 | 26 | 26 | 26 | 26 | 42 | 32 | 6,360 | 6,850 | 2,650 | 862 |
| 10 | 29 | 29 | 26 | 26 | 26 | 26 | 44 | 45 | 6,380 | 6,630 | 2,610 | 854 |
| 11 | 30 | 29 | 26 | 26 | 26 | 26 | 47 | 45 | 6,400 | 6,610 | 2,610 | 840 |
| 12 | 30 | 29 | 26 | 26 | 26 | 26 | 50 | 45 | 6,460 | 6,570 | 2,610 | 847 |
| 13 | 30 | 29 | 26 | 26 | 26 | 26 | 53 | 45 | 7,010 | 6,550 | 2,460 | 854 |
| 14 | 30 | 29 | 26 | 26 | 26 | 29 | 56 | 45 | 7,430 | 6,550 | 2,310 | 854 |
| 15 | 30 | 29 | 26 | 26 | 26 | 30 | 60 | 45 | 7,370 | 6,550 | 2,320 | 847 |
| 16 | 30 | 29 | 26 | 26 | 26 | 32 | 63 | 45 | 7,390 | 6,610 | 2,310 | 840 |
| 17 | 30 | 29 | 26 | 26 | 26 | 33 | 66 | 45 | 6,460 | 6,630 | 2,300 | 854 |
| 18 | 30 | 29 | 26 | 26 | 26 | 34 | 69 | 51 | 3,360 | 6,630 | 2,310 | 854 |
| 19 | 30 | 29 | 26 | 26 | 26 | 36 | 65 | 44 | 2,660 | 6,550 | 1,860 | 847 |
| 20 | 30 | 29 | 26 | 26 | 26 | 37 | 62 | 1,090 | 3,530 | 6,550 | 1,190 | 847 |
| 21 | 30 | 29 | 26 | 26 | 26 | 36 | 62 | 5,050 | 4,080 | 6,570 | 957 | 833 |
| 22 | 30 | 27 | 26 | 26 | 26 | 33 | 58 | 6,650 | 6,030 | 6,460 | 950 | 674 |
| 23 | 30 | 27 | 26 | 26 | 26 | 33 | 58 | 7,210 | 8,710 | 6,150 | 1,100 | 542 |
| 24 | 30 | 27 | 26 | 26 | 26 | 33 | 58 | 6,810 | 9,210 | 6,080 | 1,450 | 531 |
| 25 | 30 | 27 | 26 | 26 | 26 | 32 | 54 | 5,590 | 9,190 | 6,060 | 1,820 | 487 |
| 26 | 30 | 27 | 26 | 26 | 26 | 32 | 47 | 3,580 | 9,230 | 6,020 | 2,550 | 405 |
| 27 | 30 | 27 | 26 | 26 | 26 | 32 | 40 | 3,800 | 9,480 | 6,040 | 2,580 | 405 |
| 28 | 30 | 27 | 26 | 26 | 26 | 29 | 40 | 4,350 | 9,560 | 6,020 | 2,600 | 381 |
| 29 | 29 | 27 | 26 | 26 | ------ | 27 | 40 | 4,670 | 9,590 | 6,040 | 2,540 | 330 |
| 30 | 29 | 27 | 26 | 26 | ------ | 27 | 40 | 5,600 | 8,970 | 6,000 | 2,500 | 571 |
| 31 | 29 | ------ | 26 | 26 | ------ | 27 | ------ | 5,860 | ------ | 5,770 | 2,360 | ------ |

NOTE.—Mean of hourly discharge used May 20, June 18, and June 22. No record Apr. 11-17; discharge interpolated.

*Monthly discharge of Snake River near Moran, Wyo., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 30 | 26 | 28.9 | 1,780 |
| November | 29 | 27 | 28.4 | 1,690 |
| December | 27 | 26 | 26.2 | 1,610 |
| January | 26 | 26 | 26.0 | 1,600 |
| February | 26 | 26 | 26.0 | 1,440 |
| March | 37 | 26 | 29.4 | 1,810 |
| April | 69 | 27 | 47.8 | 2,840 |
| May | 7,210 | 32 | 1,970 | 121,000 |
| June | 9,590 | 2,660 | 6,800 | 405,000 |
| July | 7,940 | 5,770 | 6,690 | 411,000 |
| August | 5,480 | 950 | 2,430 | 149,000 |
| September | 2,160 | 330 | 895 | 53,300 |
| The year | 9,590 | 26 | 1,590 | 1,150,000 |

### SNAKE RIVER NEAR HEISE, IDAHO

LOCATION.—In sec. 5, T. 3 N., R. 41 E., 600 feet above Anderson Dam, Bonneville County, 3 miles above Heise, and 25 miles below site of station formerly maintained near Lyon. Several small creeks enter between old site and present station.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—September 25, 1910, to September 20, 1926.

GAGE.—Friez water-stage recorder on left bank; observers, Smith and Kremer.

DISCHARGE MEASUREMENTS.—Made from cable 150 feet below gage.

CHANNEL AND CONTROL.—Bed composed of rock ledge, coarse gravel, and cobblestones. One channel at all stages. Control formed by Anderson Dam, parts of which washed out during the high-water periods of 1917 and 1918 but have been replaced.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.59 feet 4 to 6 a. m. May 25 (discharge, 19,000 second-feet); minimum stage recorded, 1.58 feet February 19 and 28 (discharge, 2,340 second-feet). Minimum discharge recorded, 2,310 second-feet at 2 p. m. December 30 (gage height, 2.46 feet).

1910–1926: Maximum discharge recorded, about 52,000 second-feet June 16, 1918; minimum discharge, probably less than 2,100 second-feet during ice-affected period in December, 1924.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—No large diversions above station. A small ditch having a capacity of about 25 second-feet diverts just above station.

REGULATION.—Flow controlled to a large extent by storage in Jackson Lake Reservoir.

ACCURACY.—Stage-discharge relation not permanent; affected by ice December 25 to February 3, February 14 and 15. Two rating curves used during year, one from October 7 to January 26 and the other from January 27 to May 20 and June 24 to September 30, are fairly well defined. Staff gage read to hundredths once daily December 29 to February 28; operation of water-stage recorder satisfactory for rest of year. Daily discharge ascertained by applying mean daily gage height to rating table, except for period of ice effect during which it was estimated from discharge measurements, observer's notes, and temperature records. Shifting-control method used October 1–7 and May 21 to June 23. Records good.

*Discharge measurements of Snake River near Heise, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 19 | 2.41 | 3,730 | May 14 | 3.65 | 7,430 | July 21 | 4.50 | 10,200 |
| Nov. 17 | 2.20 | 3,260 | May 29 | 5.51 | 14,500 | Aug. 4 | 3.53 | 6,810 |
| Dec. 30 | * 2.46 | 2,310 | June 4 | 5.60 | 14,900 | Aug. 13 | 3.28 | 6,160 |
| Jan. 28 | 1.89 | 2,450 | June 14 | 5.57 | 14,800 | Aug. 24 | 2.54 | 4,130 |
| Mar. 3 | 1.61 | 2,400 | July 8 | 4.95 | 11,400 | Aug. 28 | 3.00 | 5,430 |
| Apr. 22 | 4.58 | 10,100 | July 10 | 4.95 | 11,900 | Sept. 9 | 2.38 | 3,870 |
| Apr. 30 | 4.64 | 10,400 | July 12 | 4.68 | 11,000 | Sept. 29 | 2.02 | 3,170 |

* Stage-discharge relation affected by ice.

*Daily discharge, in second-feet, of Snake River near Heise, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4,240 | 3,570 | 3,100 | | | 2,360 | 3,140 | 11,400 | 15,300 | 13,600 | 9,040 | 5,320 |
| 2 | 4,160 | 3,660 | 3,180 | | 2,440 | 2,380 | 3,070 | 11,600 | 15,100 | 12,800 | 8,640 | 5,170 |
| 3 | 4,090 | 3,860 | 3,340 | | | 2,400 | 3,050 | 11,500 | 15,000 | 12,300 | 8,510 | 4,980 |
| 4 | 4,070 | 3,840 | 3,240 | | 2,470 | 2,430 | 3,070 | 11,500 | 14,900 | 12,200 | 7,310 | 4,830 |
| 5 | 4,040 | 3,660 | 3,100 | | 2,480 | 2,520 | 3,260 | 12,200 | 15,000 | 12,100 | 6,450 | 4,780 |
| 6 | 4,090 | 3,460 | 3,120 | 2,410 | 2,450 | 2,570 | 3,810 | 12,400 | 15,200 | 11,900 | 6,190 | 4,500 |
| 7 | 4,260 | 3,420 | 3,120 | | 2,500 | 2,500 | 4,210 | 11,300 | 15,600 | 11,600 | 6,100 | 4,100 |
| 8 | 4,190 | 3,340 | 3,100 | | 2,620 | 2,520 | 4,580 | 10,300 | 15,800 | 11,700 | 6,190 | 3,990 |
| 9 | 4,090 | 3,300 | 3,040 | | 2,640 | 2,570 | 5,140 | 9,680 | 15,800 | 11,800 | 6,420 | 3,850 |
| 0 | 4,020 | 3,340 | 2,960 | | 2,600 | 2,600 | 5,600 | 8,940 | 15,600 | 11,600 | 6,420 | 3,830 |

*Daily discharge, in second-feet, of Snake River near Heise, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 3,970 | 3,380 | 2,920 | | 2,600 | 2,620 | 5,880 | 8,350 | 15,200 | 11,000 | 6,330 | 3,810 |
| 12 | 4,120 | 3,440 | 2,920 | | 2,570 | 2,600 | 6,160 | 7,930 | 14,900 | 10,800 | 6,240 | 3,740 |
| 13 | 4,260 | 3,360 | 2,900 | | 2,430 | 2,590 | 6,330 | 7,590 | 14,500 | 10,600 | 6,240 | 3,700 |
| 14 | 4,120 | 3,260 | 2,900 | | 2,450 | 2,620 | 6,540 | 7,310 | 14,500 | 10,500 | 6,160 | 3,700 |
| 15 | 4,000 | 3,240 | 2,720 | | 2,450 | 2,710 | 6,830 | 7,310 | 14,600 | 10,500 | 5,820 | 3,680 |
| 16 | 3,900 | 3,220 | 2,720 | | 2,470 | 2,910 | 7,560 | 7,620 | 14,200 | 10,300 | 5,650 | 3,660 |
| 17 | 3,880 | 3,280 | 2,790 | | 2,430 | 3,300 | 8,610 | 8,350 | 13,800 | 10,200 | 5,600 | 3,630 |
| 18 | 3,810 | 3,300 | 2,810 | | 2,370 | 3,590 | 8,900 | 9,170 | 13,000 | 10,200 | 5,510 | 3,590 |
| 19 | 3,720 | 3,240 | 2,810 | | 2,340 | 3,610 | 9,100 | 9,200 | 10,600 | 10,300 | 5,650 | 3,570 |
| 20 | 3,720 | 3,060 | 2,810 | | 2,370 | 3,630 | 9,950 | 9,710 | 9,270 | 10,400 | 5,710 | 3,570 |
| 21 | 3,700 | 2,940 | 2,810 | 2,410 | 2,470 | 3,720 | 10,300 | 11,900 | 9,540 | 10,100 | 5,010 | 3,550 |
| 22 | 3,680 | 2,920 | 2,830 | | 2,400 | 3,770 | 10,300 | 15,800 | 9,680 | 9,980 | 4,550 | 3,530 |
| 23 | 3,660 | 2,940 | 2,880 | | 2,430 | 4,190 | 9,710 | 17,400 | 10,400 | 9,850 | 4,380 | 3,510 |
| 24 | 3,570 | 3,000 | 2,880 | | 2,470 | 4,550 | 8,870 | 18,700 | 12,800 | 9,540 | 4,210 | 3,380 |
| 25 | 3,550 | 3,040 | | | 2,400 | 4,550 | 8,380 | 18,600 | 13,500 | 9,470 | 4,280 | 3,280 |
| 26 | 3,590 | 3,140 | | | 2,400 | 4,140 | 8,480 | 16,900 | 13,600 | 9,370 | 4,400 | 3,240 |
| 27 | 3,550 | 3,180 | | | 2,370 | 3,790 | 8,840 | 14,400 | 13,600 | 9,300 | 5,190 | 3,180 |
| 28 | 3,610 | 3,140 | 2,550 | | 2,340 | 3,590 | 9,100 | 14,200 | 13,700 | 9,370 | 5,400 | 3,140 |
| 29 | 3,770 | 3,120 | | | ------- | 3,400 | 9,570 | 14,600 | 13,900 | 9,440 | 5,490 | 3,120 |
| 30 | 3,750 | 3,080 | | | ------- | 3,240 | 10,400 | 14,800 | 13,800 | 9,400 | 5,510 | 3,340 |
| 31 | 3,640 | ------- | | | ------- | 3,240 | ------- | 15,400 | -------- | 9,170 | 5,460 | ------ |

NOTE.—No gage-height record Mar. 1 and 2; discharge interpolated. Braced figures give mean discharge for periods indicated.

*Monthly discharge of Snake River near Heise, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 4,260 | 3,550 | 3,900 | 240,000 |
| November | 3,860 | 2,920 | 3,290 | 196,000 |
| December | 3,340 | 2,550 | 2,870 | 176,000 |
| January | 2,410 | 2,410 | 2,410 | 148,000 |
| February | 2,640 | 2,340 | 2,460 | 137,000 |
| March | 4,550 | 2,360 | 3,140 | 193,000 |
| April | 10,400 | 3,050 | 6,960 | 414,000 |
| May | 18,700 | 7,310 | 11,800 | 726,000 |
| June | 15,800 | 9,270 | 13,700 | 815,000 |
| July | 13,600 | 9,170 | 10,700 | 658,000 |
| August | 9,040 | 4,210 | 5,940 | 365,000 |
| September | 5,320 | 3,120 | 3,840 | 228,000 |
| The year | 18,700 | 2,340 | 5,940 | 4,300,000 |

### GREAT FEEDER CANAL NEAR RIRIE, IDAHO

LOCATION.—In sec. 36, T. 4 N., R. 40 E., 4 miles east of Ririe and 14 miles east and south of Rigby, Jefferson County. Diversion gates of canal 2 miles below Heise gaging station.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 31, 1923, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank 700 feet below head of canal; inspected by W. J. Kremer.

DISCHARGE MEASUREMENTS.—Made from cable 500 feet below gage.

CHANNEL AND CONTROL.—Bed composed of cobbles and gravel drift. One channel at all stages. Some overhanging brush at high stages. Control fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.77 feet at noon May 24 (discharge, 3,890 second-feet); minimum mean daily discharge, 1,500 second-feet September 27.

1923–1926: Maximum stage recorded, 7.56 feet at 4.30 a. m. June 21, 1925 (discharge, 4,740 second-feet); minimum stage, 0.80 foot at 11 a. m. April 29, 1925 (discharge, 61 second-feet).

ICE.—Stage-discharge relation seriously affected by ice. Observations discontinued during winter.

DIVERSIONS.—None of importance above or below gage.

REGULATION.—Flow is regulated by canal head gates.

ACCURACY.—Stage-discharge relation changed owing largely to growth of aquatic plants. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method or as noted in footnote to table of daily discharge. Records fair.

*Discharge measurements of Great Feeder Canal near Ririe, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 22 | 5.08 | 2,150 | July 8 | 5.43 | 2,360 | Aug. 24 | 4.58 | 1,600 |
| June 8 | 5.98 | 3,060 | July 10 | 5.79 | 2,820 | Sept. 2 | 4.55 | 1,570 |
| June 14 | 5.91 | 2,970 | July 19 | 5.73 | 2,680 | Sept. 18 | 4.96 | 1,860 |
| June 21 | 4.25 | 1,580 | July 21 | 5.04 | 2,100 | Sept. 29 | 4.65 | 1,660 |
| June 23 | 4.31 | 1,600 | Aug. 4 | 4.94 | 1,930 | | | |
| July 4 | 4.68 | 1,940 | Aug. 13 | 5.11 | 2,090 | | | |

*Daily discharge, in second-feet, of Great Feeder Canal near Ririe, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 3,040 | 3,120 | 3,030 | 2,270 | 1,600 | 16 | ------ | 2,640 | 2,960 | 2,710 | 1,990 | 1,900 |
| 2 | ------ | 3,110 | 3,130 | 2,810 | 2,210 | 1,580 | 17 | ------ | 2,840 | 2,950 | 2,700 | 2,000 | 1,890 |
| 3 | ------ | 3,190 | 3,150 | 2,690 | 2,180 | 1,540 | 18 | ------ | 3,040 | 2,860 | 2,700 | 1,970 | 1,820 |
| 4 | ------ | 3,270 | 3,130 | 2,080 | 1,900 | 1,520 | 19 | ------ | 3,040 | 1,820 | 2,720 | 2,030 | 1,640 |
| 5 | ------ | 3,340 | 3,130 | 1,910 | 2,070 | 1,640 | 20 | ------ | 3,240 | 1,560 | 2,730 | 2,030 | 1,660 |
| 6 | ------ | 3,420 | 3,120 | 1,860 | 2,140 | 1,610 | 21 | ------ | 3,440 | 1,590 | 2,210 | 1,760 | 1,650 |
| 7 | ------ | 3,160 | 3,060 | 2,250 | 2,140 | 1,550 | 22 | 2,170 | 3,360 | 1,610 | 2,260 | 1,660 | 1,740 |
| 8 | ------ | 3,190 | 3,020 | 2,410 | 1,950 | 1,550 | 23 | 2,080 | 3,150 | 1,630 | 2,290 | 1,630 | 1,770 |
| 9 | ------ | 3,150 | 3,040 | 2,710 | 1,880 | 1,520 | 24 | 1,980 | 3,200 | 2,600 | 2,270 | 1,590 | 1,610 |
| 10 | ------ | 2,990 | 3,030 | 2,760 | 1,870 | 1,550 | 25 | 1,920 | 3,290 | 3,020 | 2,240 | 1,640 | 1,520 |
| 11 | ------ | 2,840 | 3,010 | 2,740 | 1,850 | 1,660 | 26 | 1,930 | 3,130 | 3,030 | 2,490 | 1,660 | 1,620 |
| 12 | ------ | 2,780 | 3,010 | 2,770 | 2,020 | 1,820 | 27 | 1,960 | 3,070 | 3,030 | 2,660 | 1,910 | 1,500 |
| 13 | ------ | 2,660 | 2,980 | 2,730 | 2,090 | 1,880 | 28 | 2,580 | 3,210 | 3,040 | 2,690 | 1,810 | 1,590 |
| 14 | ------ | 2,510 | 2,990 | 2,710 | 2,050 | 1,890 | 29 | 2,860 | 3,230 | 3,060 | 2,700 | 1,770 | 1,640 |
| 15 | ------ | 2,520 | 3,000 | 2,730 | 1,970 | 1,900 | 30 | 2,960 | 3,200 | 3,050 | 2,690 | 1,690 | 1,810 |
| | | | | | | | 31 | ------ | 3,190 | ------ | 2,330 | 1,620 | ------ |

NOTE.—No gage-height record May 1–5; discharge interpolated.

*Monthly discharge of Great Feeder Canal near Ririe, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April 22-30 | 2,960 | 1,920 | 2,270 | 40,500 |
| May | 3,440 | 2,510 | 3,080 | 189,000 |
| June | 3,150 | 1,560 | 2,790 | 166,000 |
| July | 3,030 | 1,860 | 2,530 | 156,000 |
| August | 2,270 | 1,590 | 1,910 | 117,000 |
| September | 1,900 | 1,500 | 1,670 | 99,400 |
| The period | | | | 767,900 |

### SNAKE RIVER AT LORENZO, IDAHO

LOCATION.—In sec. 33, T. 5 N., R. 39 E., 500 feet above Yellowstone Branch of Oregon Short Line Railroad bridge and one-fourth mile north of Lorenzo, Jefferson County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 17, 1924, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank, installed April 17, 1924.

DISCHARGE MEASUREMENTS.—Made from cable 800 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and sand. One channel at gage. Control not permanent and subject to shift during high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period, 5.00 feet at 8 a. m. May 25 (discharge, 13,300 second-feet); minimum stage, −0.58 foot from 8 a. m. to 12 m. September 29 (discharge, 258 second-feet).

ICE.—Stage-discharge relation seriously affected by ice. Records discontinued during winter.

DIVERSIONS.—Numerous canal diversions above and below station.

REGULATION.—Flow controlled to a large extent by storage in Jackson Lake Reservoir.

ACCURACY.—Stage-discharge relation not permanent. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method. Records good.

*Discharge measurements of Snake River at Lorenzo, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 24 | 3.22 | 5,470 | July 3 | 3.74 | 7,760 | Aug. 23 | 0.82 | 1,230 |
| May 13 | 2.18 | 3,180 | July 12 | 3.16 | 5,450 | Aug. 28 | 1.12 | 1,640 |
| May 29 | 3.86 | 7,770 | July 19 | 2.94 | 5,080 | Sept. 6 | .86 | 1,320 |
| June 5 | 3.89 | 8,280 | July 21 | 3.06 | 5,230 | Sept. 11 | .46 | 905 |
| June 9 | 4.17 | 9,530 | July 31 | 2.76 | 4,450 | Sept. 18 | −.18 | 437 |
| June 21 | 2.96 | 5,250 | Aug. 6 | 1.59 | 2,270 | | | |
| June 26 | 3.86 | 8,590 | Aug. 11 | 1.67 | 2,380 | | | |

*Daily discharge, in second-feet, of Snake River at Lorenzo, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 1 | 1,700 | | 5,840 | 8,860 | 8,680 | 4,570 | 1,690 |
| 2 | 1,630 | | 6,060 | 8,640 | 8,200 | 4,260 | 1,630 |
| 3 | 1,570 | | 5,930 | 8,550 | 7,660 | 4,220 | 1,570 |
| 4 | | | 5,810 | 8,330 | 8,040 | 3,520 | 1,510 |
| 5 | | | 6,340 | 8,290 | 8,200 | 2,650 | 1,450 |
| 6 | | | 6,960 | 8,420 | 7,790 | 2,250 | 1,270 |
| 7 | | | 6,230 | 8,770 | 6,880 | 2,180 | 1,160 |
| 8 | | | 5,270 | 9,220 | 6,840 | 2,260 | 1,120 |
| 9 | | | 4,720 | 9,450 | 6,730 | 2,490 | 1,040 |
| 10 | | | 4,170 | 9,500 | 6,440 | 2,470 | 1,010 |
| 11 | | | 3,820 | 9,130 | 5,870 | 2,420 | 909 |
| 12 | | | 3,520 | 8,680 | 5,620 | 2,280 | 749 |
| 13 | | | 3,130 | 8,420 | 5,500 | 2,190 | 625 |
| 14 | | | 2,720 | 8,330 | 5,300 | 2,180 | 596 |
| 15 | | | 2,440 | 8,510 | 5,240 | 1,990 | 561 |
| 16 | | | 2,540 | 8,120 | 5,160 | 1,880 | 540 |
| 17 | | | 2,750 | 7,830 | 5,050 | 1,820 | 504 |
| 18 | | | 3,170 | 7,420 | 5,000 | 1,780 | 415 |
| 19 | | | 3,220 | 6,230 | 5,030 | 1,810 | 395 |
| 20 | | | 3,520 | 5,160 | 5,100 | 1,780 | 400 |
| 21 | | | 4,840 | 5,330 | 5,190 | 1,520 | 375 |
| 22 | | | 8,860 | 5,530 | 5,130 | 1,270 | 362 |
| 23 | | | 11,100 | 5,740 | 4,970 | 1,130 | 336 |
| 24 | | 5,470 | 12,900 | 7,950 | 4,800 | 1,210 | 314 |
| 25 | | 4,970 | 13,000 | 8,370 | 4,720 | 1,220 | 314 |
| 26 | | 4,970 | 11,400 | 8,550 | 4,520 | 1,230 | 314 |
| 27 | | 5,100 | 8,510 | 8,460 | 4,310 | 1,430 | 314 |
| 28 | | 4,870 | 7,540 | 8,460 | 4,330 | 1,590 | 290 |
| 29 | | 4,840 | 7,830 | 8,590 | 4,360 | 1,680 | 258 |
| 30 | | 5,210 | 8,160 | 8,550 | 4,380 | 1,730 | 298 |
| 31 | | | 8,860 | | 4,450 | 1,760 | |

*Monthly discharge of Snake River at Lorenzo, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October 1–3 | 1,700 | 1,570 | 1,630 | 9,700 |
| April 24–30 | 5,470 | 4,840 | 5,060 | 70,300 |
| May | 13,000 | 2,440 | 6,170 | 379,000 |
| June | 9,500 | 5,160 | 8,050 | 479,000 |
| July | 8,680 | 4,310 | 5,790 | 356,000 |
| August | 4,570 | 1,130 | 2,150 | 132,000 |
| September | 1,690 | 258 | 744 | 44,300 |

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

Between the Heise and Shelley gaging stations 47 separate canals divert water from Snake River for irrigation. More than one-third of these head in the Great Feeder, an old channel of the river, which has been equipped with head gates. Records of discharge of these canals are available from June 1, 1919, to September 30, 1926.

Stage-discharge relation on many of the canals is affected by growth of aquatic plants or by operation of check gates. Rating curves well defined. Gages read daily to hundredths. Records good.

*Combined daily discharge, in second-feet, of canals diverting from Snake River between Heise and Shelley gaging stations, Idaho, for the year ending September 30, 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4,620 | 8,200 | 6,450 | 6,220 | 5,020 | 16 | 6,650 | 7,920 | 6,740 | 5,010 | 4,300 |
| 2 | 4,600 | 8,200 | 5,370 | 5,850 | 4,990 | 17 | 7,180 | 7,860 | 6,770 | 5,030 | 4,210 |
| 3 | 5,320 | 8,280 | 4,980 | 5,820 | 4,640 | 18 | 7,940 | 7,820 | 6,840 | 5,030 | 4,130 |
| 4 | 5,790 | 8,240 | 4,790 | 5,250 | 4,560 | 19 | 8,050 | 5,180 | 6,530 | 5,240 | 4,060 |
| 5 | 5,830 | 8,210 | 4,740 | 5,090 | 4,580 | 20 | 7,800 | 3,750 | 6,230 | 5,320 | 4,040 |
| 6 | 5,880 | 8,160 | 5,560 | 5,180 | 4,410 | 21 | 7,760 | 3,340 | 5,920 | 4,920 | 3,940 |
| 7 | 5,870 | 8,170 | 6,220 | 5,140 | 4,110 | 22 | 7,980 | 3,330 | 6,240 | 4,680 | 4,030 |
| 8 | 5,850 | 8,150 | 6,320 | 5,040 | 3,940 | 23 | 7,930 | 3,370 | 6,420 | 4,610 | 3,880 |
| 9 | 5,790 | 8,130 | 6,570 | 5,080 | 3,860 | 24 | 8,070 | 4,390 | 6,260 | 4,590 | 3,590 |
| 10 | 5,740 | 8,120 | 6,730 | 5,160 | 4,090 | 25 | 8,030 | 5,900 | 6,290 | 4,730 | 3,710 |
| 11 | 5,680 | 8,050 | 6,510 | 5,140 | 4,410 | 26 | 7,960 | 6,860 | 6,410 | 4,710 | 3,680 |
| 12 | 5,630 | 7,990 | 6,450 | 5,200 | 4,500 | 27 | 7,990 | 6,950 | 6,530 | 5,240 | 3,490 |
| 13 | 6,030 | 8,040 | 6,600 | 5,190 | 4,480 | 28 | 8,160 | 7,060 | 6,720 | 5,110 | 3,580 |
| 14 | 6,440 | 7,890 | 6,670 | 5,200 | 4,490 | 29 | 8,250 | 7,100 | 6,850 | 5,170 | 3,630 |
| 15 | 6,390 | 7,950 | 6,750 | 4,990 | 4,470 | 30 | 8,140 | 7,060 | 6,830 | 5,110 | 3,860 |
| | | | | | | 31 | 8,200 | ------- | 6,450 | 5,100 | ------ |

NOTE.—No record obtained Oct. 1 to Apr. 30. Discharge interpolated for days of no gage-height record in May.

*Combined monthly discharge of canals diverting from Snake River between Heise and Shelley gaging stations, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 8,250 | 4,620 | 6,830 | 420,000 |
| June | 8,280 | 3,330 | 6,990 | 416,000 |
| July | 6,850 | 4,740 | 6,280 | 386,000 |
| August | 6,220 | 4,590 | 5,130 | 315,000 |
| September | 5,020 | 3,490 | 4,160 | 248,000 |
| The period | | | | 1,780,000 |

### SNAKE RIVER NEAR SHELLEY, IDAHO

LOCATION.—In sec. 17, T. 1 N., R. 37 E., a quarter of a mile above Woodville highway bridge and 3 miles north of Shelley, Bingham County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 18, 1915, to September 30, 1926.

GAGE.—Au drum recorder on right bank; inspected by Messrs. McCurdy and Dennis.

DISCHARGE MEASUREMENTS.—Made from cable 600 feet above gage or by wading.

CHANNEL AND CONTROL.—Control formed by lava-rock reef that extends across channel 500 feet below gage. Banks high and clean.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 9.22 feet at 11 p. m. April 22 (discharge, 14,300 second-feet); minimum stage, 3.53 feet at 11.55 a. m. September 15 (discharge, 628 second-feet).

1915–1926: Maximum stage recorded, 16.97 feet at 1.30 p. m. June 17, 1918 (discharge, 47,200 second-feet); minimum stage, that of September 15, 1926.

ICE.—Stage-discharge relation seriously affected by ice; observations discontinued during winter.

DIVERSIONS.—Practically entire summer flow of river above station is appropriated by numerous diversions in Idaho Falls district.

REGULATION.—Normal flow during irrigation season is augmented by release of stored flood waters in Jackson Lake for use on the Minidoka and Twin Falls tracts.

ACCURACY.—Stage-discharge relation practically permanent. Rating curve well defined. Operation of water-stage recorder satisfactory except September 12–22 when staff gage was read to hundredths daily. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

*Discharge measurements of Snake River near Shelley, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 1 | 6.17 | 3,760 | June 17 | 7.49 | 7,680 | Aug. 27 | 4.22 | 1,110 |
| Apr. 21 | 8.91 | 13,100 | July 9 | 7.50 | 7,910 | Sept. 1 | 5.11 | 1,870 |
| May 17 | 5.24 | 2,060 | July 28 | 6.34 | 4,210 | Sept. 13 | 3.96 | 895 |
| May 31 | 7.69 | 8,710 | Aug. 21 | 5.30 | 2,160 | | | |

*Daily discharge, in second-feet, of Snake River near Shelley, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3,920 | 8,520 | 9,020 | 9,420 | 4,480 | 1,920 | 16 | 8,060 | 2,120 | 8,340 | 5,390 | 2,630 | 808 |
| 2 | 3,840 | 9,310 | 8,950 | 9,670 | 4,730 | 1,960 | 17 | 8,950 | 2,070 | 7,880 | 5,210 | 2,350 | 784 |
| 3 | 3,800 | 9,450 | 8,480 | 9,600 | 4,730 | 2,000 | 18 | 10,200 | 2,220 | 7,500 | 5,100 | 2,180 | 760 |
| 4 | 3,710 | 8,880 | 8,160 | 9,450 | 4,560 | 2,000 | 19 | 11,200 | 2,750 | 7,600 | 4,950 | 2,170 | 766 |
| 5 | 3,730 | 8,340 | 7,950 | 9,530 | 3,840 | 2,040 | 20 | 12,000 | 2,920 | 7,420 | 5,390 | 2,170 | 913 |
| 6 | 3,800 | 9,310 | 8,020 | 8,950 | 3,110 | 2,040 | 21 | 13,000 | 3,710 | 6,940 | 5,660 | 2,150 | 997 |
| 7 | 4,270 | 9,710 | 8,300 | 8,160 | 2,680 | 1,870 | 22 | 13,800 | 6,170 | 7,420 | 5,700 | 1,860 | 990 |
| 8 | 4,840 | 8,770 | 8,950 | 7,530 | 2,580 | 1,790 | 23 | 13,700 | 10,200 | 7,640 | 5,270 | 1,610 | 1,080 |
| 9 | 5,150 | 7,390 | 9,310 | 7,880 | 2,700 | 1,760 | 24 | 12,700 | 12,000 | 8,730 | 5,180 | 1,450 | 1,120 |
| 10 | 5,600 | 6,570 | 9,310 | 7,780 | 2,970 | 1,540 | 25 | 11,200 | 13,400 | 9,130 | 4,980 | 1,320 | 1,110 |
| 11 | 5,950 | 5,600 | 9,450 | 7,460 | 3,150 | 1,240 | 26 | 10,000 | 13,500 | 8,590 | 4,870 | 1,200 | 1,120 |
| 12 | 6,370 | 4,890 | 9,090 | 6,740 | 3,190 | 1,020 | 27 | 9,380 | 11,400 | 8,630 | 4,620 | 1,090 | 1,240 |
| 13 | 6,670 | 4,040 | 8,770 | 6,170 | 3,070 | 808 | 28 | 8,950 | 8,590 | 8,700 | 4,320 | 1,290 | 1,340 |
| 14 | 6,940 | 3,230 | 8,410 | 5,790 | 3,010 | 706 | 29 | 8,730 | 7,920 | 8,840 | 4,240 | 1,550 | 1,300 |
| 15 | 7,420 | 2,490 | 8,300 | 5,510 | 2,860 | 628 | 30 | 8,300 | 8,090 | 8,880 | 4,270 | 1,750 | 1,330 |
| | | | | | | | 31 | ------ | 8,520 | ------ | 4,300 | 1,900 | ------ |

NOTE.—No record obtained Oct. 1 to Mar. 31. Recorder not operating Sept. 12–22; discharge determined from daily staff gage readings.

*Monthly discharge of Snake River near Shelley, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April | 13,800 | 3,710 | 7,870 | 468,000 |
| May | 13,500 | 2,070 | 7,160 | 440,000 |
| June | 9,450 | 6,940 | 8,420 | 501,000 |
| July | 9,670 | 4,240 | 6,420 | 395,000 |
| August | 4,730 | 1,090 | 2,590 | 159,000 |
| September | 2,040 | 628 | 1,300 | 77,400 |
| The period | ---------- | ---------- | ---------- | 2,040,400 |

### DIVERSIONS FROM SNAKE RIVER BETWEEN SHELLEY AND BLACKFOOT BRIDGE GAGING STATIONS, IDAHO

Fourteen separate canals divert water from Snake River for irrigation between Shelley and Lower Blackfoot Bridge gaging stations. Gaging stations are maintained at heading of each canal by the United States Geological Survey for the Idaho State Department of Reclamation to facilitate distribution of the water. Records are available from May 19, 1924, to September 30, 1926.

Stage-discharge relation on many of the canals is affected by growth of aquatic plants or by operation of check gates. Rating curves are well defined. Gages read daily May 15 to September 30, and occasional readings made May 1–14. Records good.

*Combined daily discharge, in second-feet, of canals diverting from Snake River between Shelley and Blackfoot Bridge gaging stations, for the year ending September 30, 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,420 | 2,900 | 3,030 | 1,050 | 1,100 | 16 | 1,640 | 3,410 | 1,800 | 1,230 | 513 |
| 2 | 2,570 | 2,890 | 3,010 | 1,650 | 703 | 17 | 1,660 | 3,380 | 2,070 | 1,560 | 637 |
| 3 | 2,820 | 2,870 | 3,010 | 1,950 | 706 | 18 | 1,940 | 3,420 | 1,770 | 1,710 | 622 |
| 4 | 3,090 | 2,890 | 2,630 | 1,660 | 707 | 19 | 2,430 | 1,950 | 1,830 | 1,520 | 632 |
| 5 | 3,200 | 2,900 | 2,110 | 1,490 | 698 | 20 | 2,640 | 1,190 | 2,010 | 1,490 | 630 |
| 6 | 3,250 | 2,890 | 1,140 | 1,510 | 856 | 21 | 2,950 | 1,140 | 2,070 | 1,510 | 659 |
| 7 | 3,240 | 2,900 | 688 | 1,730 | 889 | 22 | 3,240 | 1,120 | 2,070 | 1,070 | 735 |
| 8 | 3,250 | 2,910 | 682 | 1,640 | 918 | 23 | 3,390 | 1,120 | 2,020 | 962 | 754 |
| 9 | 3,160 | 2,920 | 701 | 2,030 | 1,010 | 24 | 3,440 | 1,150 | 1,780 | 796 | 829 |
| 10 | 3,030 | 2,900 | 941 | 1,700 | 1,120 | 25 | 3,390 | 1,150 | 1,490 | 747 | 852 |
| 11 | 2,910 | 2,860 | 1,240 | 1,020 | 1,020 | 26 | 3,040 | 1,440 | 1,030 | 702 | 813 |
| 12 | 2,830 | 2,810 | 1,360 | 1,080 | 815 | 27 | 2,880 | 2,070 | 1,040 | 678 | 825 |
| 13 | 2,570 | 2,830 | 1,390 | 1,170 | 752 | 28 | 2,900 | 2,290 | 1,110 | 801 | 886 |
| 14 | 2,240 | 2,780 | 1,490 | 1,200 | 601 | 29 | 2,890 | 2,730 | 1,100 | 1,120 | 952 |
| 15 | 2,150 | 3,140 | 1,310 | 1,190 | 498 | 30 | 2,890 | 3,030 | 1,060 | 1,250 | 802 |
| | | | | | | 31 | 2,900 | ------- | 1,040 | 1,310 | ------ |

NOTE.—No record obtained Oct. 1 to Apr. 30. Discharge interpolated for days of no gage-height record in May.

*Combined monthly discharge of canals diverting from Snake River between Shelley and Blackfoot Bridge gaging stations, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 3,440 | 1,640 | 2,800 | 172,000 |
| June | 3,420 | 1,120 | 2,470 | 147,000 |
| July | 3,030 | 682 | 1,610 | 99,000 |
| August | 2,030 | 678 | 1,310 | 80,600 |
| September | 1,120 | 498 | 784 | 46,700 |
| The period | | | | 545,000 |

### SNAKE RIVER (NOS. 1 AND 2 CHANNELS) BELOW BLACKFOOT BRIDGE, NEAR BLACKFOOT, IDAHO

LOCATION.—In NW. ¼ sec. 5, T. 3 S., R. 35 E., half a mile below Blackfoot lower highway bridge and 2 miles west of Blackfoot, Bingham County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 24, 1924, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank of No. 2 channel one-fourth mile below head of island where No. 1 channel separates from main river; inspected by D. G. Taylor.

DISCHARGE MEASUREMENTS.—Made from cables (No. 1 channel, one-fourth mile above gage; No. 2 channel, 50 feet below gage) or by wading.

CHANNEL AND CONTROL.—Bed composed of cobbles in gravel drift. Control subject to occasional shifts. Banks are low and subject to overflow at high stages. Two channels at gage except at low stages, when No. 1 channel is dry.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period, 5.26 feet at 4 p. m. May 26 (discharge, 8,490 second-feet); dry on several days in September.

1924–1926: Maximum stage recorded, 7.37 feet at 10 p. m. May 23, 1925 (discharge, 19,100 second-feet); dry on numerous days in summers of 1925 and 1926.

ICE.—Stage-discharge relation seriously affected by ice; observations discontinued during winter.

DIVERSIONS.—Practically entire summer flow of river above station is appropriated by numerous diversions in the Idaho Falls district. One small canal diverts between this station and station at Clough ranch.

REGULATION.—Natural flow during irrigation season is augmented by the release of stored flood waters in Jackson Lake for use on the Minidoka and Twin Falls tracts.

ACCURACY.—Stage-discharge relation fairly permanent. Rating curve well defined. Operation of water-stage recorder satisfactory except May 16–21 and September 11–30, when stage was below intake. Daily discharge ascertained April 26 to July 17 by applying to rating table mean daily gage height determined from recorder graph by inspection, and for rest of year by shifting-control method, except as noted in footnote to table of daily discharge. Records good.

At this point Snake River is divided into three channels, which are listed from east to west as Nos. 1, 2, and 3. One gage serves for Nos. 1 and 2 channels and another gage for No. 3 channel.

*Discharge measurements of Snake River (Nos. 1 and 2 channels) at Blackfoot Bridge, near Blackfoot, Idaho, during year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 26 | 4.96 | 7,260 | Aug. 3 | 2.80 | 2,060 | Aug. 26 | 0.74 | 271 |
| May 15 | 1.10 | 470 | Aug. 6 | 2.26 | 1,380 | Do | .63 | 255 |
| May 28 | 4.11 | 4,520 | Aug. 7 | 1.75 | 930 | Aug. 28 | .52 | 202 |
| June 8 | 4.13 | 4,540 | Aug. 10 | .96 | 350 | Aug. 30 | .61 | 225 |
| June 19 | 3.56 | 3,210 | Aug. 11 | 2.38 | 1,410 | Sept. 2 | 1.66 | 825 |
| July 13 | 3.80 | 3,750 | Aug. 16 | 1.77 | 885 | Sept. 9 | 1.30 | 602 |
| July 18 | 3.16 | 2,570 | Aug. 20 | .99 | 376 | Sept. 13 | | 64.0 |
| July 26 | 3.06 | 2,410 | Do | 1.00 | 385 | Do | —.16 | 57.6 |
| July 31 | 3.07 | 2,410 | Aug. 25 | .89 | 340 | | | |

*Daily discharge, in second-feet, of Snake River (Nos. 1 and 2 channels) at Blackfoot Bridge, near Blackfoot, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 4,910 | 4,770 | 4,830 | 2,490 | 465 | 16 | | 99 | 3,970 | 2,710 | 928 | 4 |
| 2 | | 5,240 | 4,830 | 5,150 | 2,290 | 833 | 17 | | 50 | 3,670 | 2,290 | 520 | 5 |
| 3 | | 5,390 | 4,500 | 5,090 | 2,050 | 864 | 18 | | 25 | 3,290 | 2,460 | 301 | 3 |
| 4 | | 4,740 | 4,210 | 5,180 | 2,190 | 904 | 19 | | 0 | 4,070 | 2,430 | 313 | 3 |
| 5 | | 4,240 | 4,020 | 5,640 | 1,890 | 872 | 20 | | 10 | 5,030 | 2,410 | 400 | 3 |
| 6 | | 4,600 | 4,020 | 6,170 | 1,250 | 888 | 21 | | 118 | 4,500 | 2,720 | 400 | 7 |
| 7 | | 5,120 | 4,160 | 5,970 | 756 | 742 | 22 | | 1,070 | 4,910 | 2,740 | 476 | 7 |
| 8 | | 4,690 | 4,550 | 5,450 | 536 | 658 | 23 | | 4,550 | 5,090 | 2,600 | 525 | 6 |
| 9 | | 3,810 | 5,000 | 5,580 | 348 | 569 | 24 | | 6,310 | 5,480 | 2,550 | 415 | 7 |
| 10 | | 3,170 | 5,090 | 5,390 | 536 | 348 | 25 | | 7,750 | 6,380 | 2,570 | 330 | 6 |
| 11 | | 2,540 | 5,210 | 4,880 | 1,380 | 112 | 26 | 6,970 | 8,280 | 5,450 | 2,710 | 268 | 6 |
| 12 | | 1,920 | 5,000 | 4,340 | 1,400 | 75 | 27 | 6,630 | 7,350 | 5,150 | 2,780 | 234 | 9 |
| 13 | | 1,290 | 4,690 | 3,760 | 1,280 | 58 | 28 | 6,140 | 4,830 | 4,880 | 2,460 | 123 | 10 |
| 14 | | 984 | 4,520 | 3,390 | 1,190 | 25 | 29 | 5,740 | 3,970 | 4,800 | 2,340 | 110 | 10 |
| 15 | | 455 | 4,140 | 3,170 | 1,100 | 10 | 30 | 5,060 | 4,040 | 4,550 | 2,430 | 176 | 10 |
| | | | | | | | 31 | | 4,340 | | 2,440 | 317 | |

NOTE.—No gage-height record May 16–21 and Sept. 11–30; discharge estimated by observers and checked Sept. 13 by engineer's measurement. No record Oct. 1 to Apr. 25.

*Monthly discharge of Snake River (Nos. 1 and 2 channels) at Lower Blackfoot Bridge, near Blackfoot, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April 26–30 | 6,970 | 5,060 | 6,110 | 60,600 |
| May | 8,280 | 0 | 3,420 | 210,000 |
| June | 6,380 | 3,290 | 4,660 | 277,000 |
| July | 6,170 | 2,290 | 3,700 | 228,000 |
| August | 2,490 | 110 | 856 | 52,600 |
| September | 904 | 3 | 251 | 14,900 |
| The period | | | | 843,000 |

**SNAKE RIVER (NO. 3 CHANNEL) BELOW BLACKFOOT BRIDGE, NEAR BLACKFOOT, IDAHO**

LOCATION.—In NW. ¼ sec. 7, T. 3 S., R. 35 E., 2 miles below Blackfoot lower highway bridge and 3½ miles southwest of Blackfoot, Bingham County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 3, 1924, to September 30, 1926.

GAGE.—Friez recorder on right bank; inspected by D. G. Taylor.

DISCHARGE MEASUREMENTS.—Made from cable 40 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of coarse gravel over cobbles. Banks not subject to overflow except at extremely high stages. One channel at gage, several overflow channels cross island between Nos. 2 and 3 channels at high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period, 4.09 feet at 4 p. m. May 26 (discharge, 1,770 second-feet); dry on several days during September.

1924–1926: Maximum stage recorded, 6.01 feet at 10 p. m. May 23, 1925 (discharge, 4,940 second-feet); channel dry several days during August and September, 1924, and September, 1925.

ICE.—Stage-discharge relation probably seriously affected by ice; observations discontinued during winter.

DIVERSIONS.—Practically entire natural summer flow of river above station is appropriated by numerous diversions in the Idaho Falls district. One small canal diverts between this station and station at Clough ranch.

REGULATION.—Normal flow during irrigation season is augmented by the release of stored flood waters in Jackson Lake for use on the Minidoka and Twin Falls tracts.

ACCURACY.—Stage-discharge relation not permanent. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method. Records good.

At this point Snake River is divided into three channels, which are listed from east to west as Nos. 1, 2, and 3. One gage serves for Nos. 1 and 2 channels and another gage for No. 3 channel.

*Discharge measurements of Snake River (No. 3 channel) at Blackfoot Bridge near Blackfoot, Idaho, during the year ending September 30, 1926.*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 26 | 3.98 | 1,580 | July 17 | 2.72 | 453 | Aug. 26 | 1.67 | 16.8 |
| May 15 | 1.82 | 52 | July 26 | 3.05 | 671 | Do | 1.67 | 13.1 |
| May 20 | 1.88 | 60 | Aug. 6 | 2.55 | 287 | Aug. 28 | 1.58 | 4.66 |
| May 21 | 1.80 | 49.1 | Aug. 7 | 2.30 | 175 | Aug. 30 | 1.60 | 5.14 |
| May 25 | 3.96 | 1,610 | Aug. 10 | 2.02 | 78.1 | Sept. 2 | 2.08 | 129 |
| June 8 | 3.30 | 952 | Aug. 11 | 2.58 | 290 | Sept. 6 | 2.15 | 154 |
| June 12 | 3.38 | 1,040 | Aug. 16 | 2.30 | 197 | Sept. 9 | 1.88 | 63 |
| June 28 | 3.37 | 1,000 | Aug. 20 | 1.80 | 35 2 | Sept. 13 | 1.46 | 5.84 |
| July 13 | 3.09 | 747 | Do | 1.80 | 35.6 | Sept. 23 | 1.86 | 59 |

*Daily discharge, in second-feet, of Snake River (No. 3 channel) at Blackfoot Bridge near Blackfoot, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 1,040 | 982 | 1,000 | 478 | 23 | 16 | ------ | 31 | 816 | 534 | 206 | 3 |
| 2 | ------ | 1,100 | 1,000 | 1,070 | 445 | 120 | 17 | ------ | 18 | 766 | 439 | 106 | 8 |
| 3 | ------ | 1,130 | 934 | 1,050 | 401 | 134 | 18 | ------ | 5 | 668 | 452 | 43 | 3 |
| 4 | ------ | 962 | 870 | 1,030 | 439 | 142 | 19 | ------ | 2 | 897 | 472 | 36 | 1 |
| 5 | ------ | 808 | 825 | 1,150 | 407 | 134 | 20 | ------ | 62 | 1,100 | 465 | 32 | 3 |
| 6 | ------ | 852 | 816 | 1,250 | 259 | 142 | 21 | ------ | 142 | 944 | 534 | 31 | 64 |
| 7 | ------ | 982 | 843 | 1,240 | 166 | 99 | 22 | ------ | 364 | 1,020 | 534 | 43 | 113 |
| 8 | ------ | 924 | 934 | 1,140 | 201 | 84 | 23 | ------ | 897 | 1,050 | 512 | 64 | 64 |
| 9 | ------ | 740 | 1,030 | 1,140 | 99 | 67 | 24 | ------ | 1,270 | 1,100 | 562 | 40 | 106 |
| 10 | ------ | 607 | 1,050 | 1,100 | 113 | 24 | 25 | ------ | 1,580 | 1,280 | 599 | 23 | 110 |
| 11 | ------ | 478 | 1,080 | 1,000 | 291 | 14 | 26 | 1,590 | 1,710 | 1,080 | 614 | 14 | 116 |
| 12 | ------ | 358 | 1,050 | 888 | 285 | 6 | 27 | 1,480 | 1,530 | 1,070 | 562 | 5 | 183 |
| 13 | ------ | 264 | 982 | 774 | 259 | 3 | 28 | 1,390 | 1,050 | 1,000 | 478 | 4 | 259 |
| 14 | ------ | 162 | 915 | 684 | 244 | 0 | 29 | 1,320 | 825 | 972 | 452 | 4 | 274 |
| 15 | ------ | 62 | 843 | 630 | 244 | 0 | 30 | 1,100 | 816 | 934 | 472 | 5 | 296 |
| | | | | | | | 31 | ------ | 879 | ------ | 478 | 8 | ------ |

NOTE.—No record obtained Oct. 1 to Apr. 25.

*Monthly discharge of Snake River (No. 3 channel) below Blackfoot Bridge near Blackfoot, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April 26-30 | 1,590 | 1,100 | 1,380 | 13,700 |
| May | 1,710 | 2 | 698 | 42,900 |
| June | 1,280 | 668 | 962 | 57,200 |
| July | 1,250 | 439 | 753 | 46,300 |
| August | 478 | 4 | 161 | 9,900 |
| September | 296 | 0 | 86.5 | 5,150 |
| The period | | | | 175,000 |

*Combined daily discharge, in second-feet, of Snake River (Nos. 1, 2, and 3 channels) below lower Blackfoot Bridge, near Blackfoot, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 5,950 | 5,750 | 5,830 | 2,970 | 488 | 16 | | 130 | 4,790 | 3,240 | 1,130 | 7 |
| 2 | | 6,340 | 5,830 | 6,220 | 2,740 | 953 | 17 | | 68 | 4,440 | 2,730 | 626 | 13 |
| 3 | | 6,520 | 5,430 | 6,140 | 2,450 | 998 | 18 | | 30 | 3,960 | 2,910 | 344 | 6 |
| 4 | | 5,700 | 5,080 | 6,240 | 2,630 | 1,050 | 19 | | 2 | 4,970 | 2,900 | 349 | 4 |
| 5 | | 5,050 | 4,840 | 6,790 | 2,300 | 1,010 | 20 | | 72 | 6,130 | 2,880 | 432 | 6 |
| 6 | | 5,450 | 4,840 | 7,420 | 1,510 | 1,030 | 21 | | 260 | 5,440 | 3,250 | 431 | 71 |
| 7 | | 6,100 | 5,000 | 7,210 | 922 | 841 | 22 | | 1,430 | 5,930 | 3,270 | 519 | 120 |
| 8 | | 5,610 | 5,480 | 6,590 | 737 | 742 | 23 | | 5,450 | 6,140 | 3,110 | 589 | 70 |
| 9 | | 4,550 | 6,030 | 6,720 | 447 | 636 | 24 | | 7,580 | 6,580 | 3,110 | 455 | 113 |
| 10 | | 3,780 | 6,140 | 6,490 | 649 | 372 | 25 | | 9,330 | 7,660 | 3,170 | 353 | 116 |
| 11 | | 3,020 | 6,290 | 5,880 | 1,670 | 126 | 26 | 8,560 | 9,990 | 6,530 | 3,320 | 282 | 122 |
| 12 | | 2,280 | 6,050 | 5,230 | 1,680 | 81 | 27 | 8,110 | 8,880 | 6,220 | 3,340 | 239 | 192 |
| 13 | | 1,550 | 5,670 | 4,530 | 1,540 | 61 | 28 | 7,530 | 5,880 | 5,880 | 2,940 | 127 | 269 |
| 14 | | 1,150 | 5,440 | 4,070 | 1,430 | 25 | 29 | 7,060 | 4,800 | 5,770 | 2,790 | 114 | 284 |
| 15 | | 517 | 4,980 | 3,800 | 1,340 | 10 | 30 | 6,160 | 4,860 | 5,480 | 2,900 | 181 | 306 |
| | | | | | | | 31 | | 5,220 | | 2,920 | 325 | |

*Combined monthly discharge of Snake River (Nos. 1, 2, and 3 channels) below lower Blackfoot Bridge, near Blackfoot, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April 26–30 | 8,560 | 6,160 | 7,480 | 74,200 |
| May | 9,990 | 2 | 4,110 | 253,000 |
| June | 7,660 | 3,960 | 5,630 | 335,000 |
| July | 7,420 | 2,730 | 4,450 | 274,000 |
| August | 2,970 | 114 | 1,020 | 62,700 |
| September | 1,050 | 4 | 337 | 20,100 |
| The period | | | | 1,020,000 |

**DIVERSIONS FROM SNAKE RIVER BETWEEN BLACKFOOT BRIDGE AND CLOUGH RANCH GAGING STATIONS, IDAHO**

Between Blackfoot Bridge and Clough ranch gaging stations, one small canal (Smith-Maxwell Canal) diverts water from Snake River for irrigation. A gaging station is maintained at heading of canal by the United States Geological Survey for the Idaho State Department of Reclamation to facilitate distribution of the water. Records are available May 1, 1924, to September 30, 1926.

Stage-discharge relation affected by growth of aquatic plants. Rating curve fairly well defined. Gage read to hundredths May 8 to September 30. Records fair.

*Daily discharge, in second-feet, of canal diverting from Snake River between Blackfoot Bridge and Clough ranch gaging stations, for the irrigation season of 1926*

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

NOTE.—No record Oct. 1 to May 1. No flow during August and September. Discharge estimated May 1–7.

*Monthly discharge of canal diverting from Snake River between Blackfoot Bridge and Clough ranch gaging stations, for the irrigation season of 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 21 | 0 | 6.87 | 422 |
| June | 22 | 13 | 18.1 | 1,080 |
| July | 16 | 0 | 6.35 | 390 |
| The period | | | | 1,910 |

### SNAKE RIVER AT CLOUGH RANCH, NEAR BLACKFOOT, IDAHO

LOCATION.—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, Bingham County. Blackfoot River is only large tributary between station and mouth of Henrys Fork, 60 miles above. Portneuf and Bannock Rivers and about 2,500 second-feet of spring water enter between this station and station at Neeley.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—June 6, 1910, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank; observer, J. A. Clough.

DISCHARGE MEASUREMENTS.—Made from cable 50 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of very coarse gravel. Two channels at low and medium stages. Control shifts slightly during high water.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.81 feet at 8 to 10 a. m. April 23 (discharge, 12,800 second-feet); minimum stage, 1.52 feet 5 to 8 p. m. September 16 (discharge, 147 second-feet).

1910–1926: Maximum stage recorded, 14.8 feet (approximately) at 5 p. m. June 18, 1918 (discharge, about 46,200 second-feet); exact discharge uncertain because of probable shift in stage-discharge relation at this time. Minimum discharge, 118 second-feet at 6 p. m. August 25, 1919.

ICE.—Floating ice sometimes present for short periods. Stage-discharge relation apparently not affected.

DIVERSIONS.—Practically entire natural summer flow of river is diverted above station.

REGULATION.—Flow regulated by storage in Jackson Lake Reservoir and in Blackfoot-Marsh Reservoir on Blackfoot River. Practically entire summer flow is released water from these reservoirs.

ACCURACY.—Stage-discharge relation not permanent. Two well-defined curves used, one from October 1 to January 4 and the other from January 5 to September 30. Operation of water-stage recorder satisfactory. Daily discharge obtained by applying mean daily gage height to rating table October 1 to May 4 and by shifting-control method from May 5 to September 30. Records good.

*Discharge measurements of Snake River at Clough ranch, near Blackfoot, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 29 | 4.88 | 4,330 | June 12 | 5.64 | 6,010 | Aug. 14 | 3.66 | 2,080 |
| Jan. 27 | 4.04 | 2,600 | June 14 | 5.42 | 5,540 | Aug. 20 | 2.70 | 842 |
| Apr. 12 | 5.58 | 5,810 | June 26 | 5.53 | 5,830 | Do | 2.65 | 769 |
| Apr. 20 | 7.21 | 10,700 | June 28 | 5.53 | 5,800 | Aug. 25 | 2.19 | 417 |
| May 4 | 5.52 | 5,590 | July 13 | 5.00 | 4,680 | Aug. 26 | 2.03 | 335 |
| May 6 | 5.28 | 5,380 | July 14 | 4.86 | 4,230 | Aug. 28 | 1.88 | 255 |
| May 12 | 4.16 | 2,980 | July 17 | 4.17 | 2,850 | Aug. 31 | 2.08 | 358 |
| May 18 | 2.16 | 524 | July 29 | 4.13 | 2,750 | Sept. 6 | 2.98 | 1,160 |
| May 19 | 2.18 | 560 | July 31 | 4.22 | 2,860 | Sept. 9 | 2.50 | 750 |
| May 20 | 2.31 | 669 | Aug. 6 | 3.52 | 1,740 | Sept. 13 | 1.60 | 176 |
| May 28 | 5.69 | 6,240 | Aug. 7 | 3.25 | 1,430 | Sept. 14 | 1.54 | 156 |
| June 2 | 5.52 | 5,510 | Aug. 10 | 2.86 | 991 | Sept. 29 | 2.25 | 575 |
| June 4 | 5.25 | 5,100 | Aug. 13 | 3.61 | 1,930 | | | |

*Daily discharge, in second-feet, of Snake River at Clough ranch, near Blackfoot, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4,000 | 4,540 | 4,100 | 2,410 | 3,070 | 3,180 | 3,650 | 5,780 | 5,530 | 5,720 | 3,070 | 432 |
| 2 | 4,100 | 4,650 | 4,210 | 2,330 | 2,980 | 3,180 | 3,550 | 6,150 | 5,650 | 6,230 | 3,030 | 890 |
| 3 | 4,000 | 4,650 | 4,320 | 2,200 | 2,980 | 3,160 | 3,450 | 6,410 | 5,410 | 6,100 | 2,730 | 990 |
| 4 | 4,000 | 4,880 | 4,430 | 2,330 | 3,070 | 3,200 | 3,390 | 5,780 | 5,120 | 6,100 | 2,750 | 1,040 |
| 5 | 4,000 | 5,000 | 4,540 | 2,890 | 3,260 | 3,360 | 3,410 | 5,290 | 4,890 | 6,620 | 2,590 | 1,010 |
| 6 | 4,100 | 4,880 | 4,430 | 3,450 | 3,360 | 3,360 | 3,550 | 5,410 | 4,780 | 7,160 | 1,970 | 1,100 |
| 7 | 4,210 | 4,760 | 4,430 | 3,110 | 3,550 | 3,280 | 3,750 | 6,410 | 5,010 | 7,020 | 1,370 | 950 |
| 8 | 4,430 | 4,540 | 4,320 | 3,070 | 3,650 | 3,180 | 4,490 | 6,150 | 5,360 | 6,750 | 1,100 | 840 |
| 9 | 4,650 | 4,540 | 4,210 | 3,130 | 3,960 | 3,110 | 4,820 | 5,060 | 5,980 | 6,620 | 960 | 749 |
| 10 | 4,540 | 4,540 | 4,100 | 2,930 | 4,060 | 3,110 | 5,170 | 4,380 | 6,230 | 6,490 | 980 | 525 |
| 11 | 4,650 | 4,430 | 4,100 | 2,910 | 4,160 | 3,200 | 5,530 | 3,750 | 6,230 | 5,850 | 2,120 | 373 |
| 12 | 4,760 | 4,540 | 4,000 | 2,840 | 3,750 | 3,220 | 5,900 | 3,070 | 6,100 | 5,360 | 2,210 | 256 |
| 13 | 5,000 | 4,540 | 4,100 | 2,710 | 3,850 | 3,160 | 6,280 | 2,370 | 5,720 | 4,670 | 1,880 | 188 |
| 14 | 5,110 | 4,540 | 4,000 | 2,540 | 3,550 | 3,220 | 6,410 | 1,810 | 5,600 | 4,120 | 1,960 | 162 |
| 15 | 5,110 | 4,430 | 3,900 | 2,610 | 3,410 | 3,370 | 6,670 | 980 | 5,240 | 3,910 | 1,960 | 151 |
| 16 | 5,000 | 4,320 | 3,800 | 2,370 | 3,220 | 3,550 | 7,080 | 695 | 4,890 | 3,410 | 1,740 | 147 |
| 17 | 4,880 | 4,320 | 3,800 | 2,750 | 3,130 | 3,650 | 7,770 | 668 | 4,670 | 2,760 | 1,290 | 154 |
| 18 | 4,880 | 4,430 | 4,000 | 3,090 | 3,360 | 3,960 | 8,970 | 548 | 4,120 | 2,820 | 758 | 154 |
| 19 | 4,760 | 4,430 | 4,000 | 3,090 | 3,550 | 4,160 | 9,930 | 555 | 4,780 | 2,840 | 713 | 154 |
| 20 | 4,650 | 4,320 | 4,000 | 3,130 | 3,340 | 4,160 | 10,430 | 618 | 6,100 | 2,680 | 803 | 158 |
| 21 | 4,540 | 4,210 | 4,000 | 3,220 | 3,200 | 4,270 | 11,480 | 618 | 5,360 | 3,130 | 840 | 179 |
| 22 | 4,430 | 4,100 | 4,000 | 3,000 | 3,240 | 4,380 | 12,200 | 1,310 | 5,850 | 3,150 | 930 | 216 |
| 23 | 4,320 | 4,000 | 4,000 | 2,750 | 3,220 | 4,380 | 12,580 | 4,760 | 6,100 | 3,030 | 1,110 | 211 |
| 24 | 4,210 | 4,000 | 4,000 | 2,750 | 3,220 | 4,600 | 11,840 | 7,490 | 6,230 | 3,000 | 634 | 216 |
| 25 | 4,210 | 4,000 | 4,000 | 2,660 | 3,220 | 5,060 | 10,600 | 9,060 | 7,570 | 3,070 | 432 | 240 |
| 26 | 4,210 | 4,100 | 3,900 | 2,680 | 3,180 | 5,170 | 9,120 | 9,760 | 6,620 | 3,220 | 354 | 318 |
| 27 | 4,210 | 4,100 | 3,800 | 2,640 | 3,150 | 4,820 | 8,210 | 9,030 | 6,230 | 3,360 | 284 | 386 |
| 28 | 4,210 | 4,210 | 3,700 | 2,750 | 3,160 | 4,380 | 7,630 | 6,150 | 5,850 | 2,960 | 256 | 518 |
| 29 | 4,320 | 4,320 | 3,260 | 2,710 | ------- | 4,060 | 7,080 | 4,710 | 5,720 | 2,760 | 272 | 562 |
| 30 | 4,540 | 4,210 | 2,740 | 2,570 | ------- | 3,960 | 6,150 | 4,710 | 5,480 | 2,850 | 272 | 594 |
| 31 | 4,760 | ------- | 2,640 | 2,390 | ------- | 3,750 | ------- | 5,060 | ------- | 2,930 | 348 | ------ |

NOTE.—Discharge interpolated Nov. 20.

*Monthly discharge of Snake River at Clough ranch, near Blackfoot, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 5,110 | 4,000 | 4,480 | 275,000 |
| November | 5,000 | 4,000 | 4,420 | 263,000 |
| December | 4,540 | 2,640 | 3,960 | 243,000 |
| January | 3,450 | 2,200 | 2,770 | 170,000 |
| February | 4,160 | 2,980 | 3,390 | 188,000 |
| March | 5,170 | 3,110 | 3,760 | 231,000 |
| April | 12,580 | 3,390 | 7,040 | 419,000 |
| May | 9,760 | 548 | 4,340 | 267,000 |
| June | 7,570 | 4,120 | 5,610 | 334,000 |
| July | 7,160 | 2,680 | 4,410 | 271,000 |
| August | 3,070 | 256 | 1,350 | 83,000 |
| September | 1,100 | 147 | 462 | 27,500 |
| The year | 12,580 | 147 | 3,830 | 2,770,000 |

### AMERICAN FALLS RESERVOIR AT AMERICAN FALLS, IDAHO

LOCATION.—In sec. 29 and 30, T. 7 S., R. 31 E., at outlet gates, 1 mile from center of American Falls, Power County.

RECORDS AVAILABLE.—March 1, 1926, to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder attached to upstream retaining wall at west end of dam.

COOPERATION.—Gage-height record and table showing storage capacity of reservoir furnished by United States Bureau of Reclamation.

American Falls Reservoir having a capacity of 1,700,000 acre-feet between elevation 4,295.70 and 4,354.50 feet, sea-level datum, impounds water for supplemental irrigation of lands in the Minidoka and North and South Side Twin Falls tracts and also stores water for some future irrigation development.

*Daily contents, in acre-feet, of American Falls Reservoir at American Falls, Idaho, for the year ending September 30, 1926*

| Day | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 1 | 5,190 | 5,110 | 105,370 | 42,280 | 27,330 | 13,060 | 3,610 |
| 2 | 5,070 | 4,710 | 104,180 | 40,990 | 27,650 | 12,520 | 3,790 |
| 3 | 4,990 | 4,710 | 103,610 | 40,620 | 28,300 | 11,510 | 4,430 |
| 4 | 4,990 | 4,750 | 101,480 | 38,600 | 28,960 | 10,860 | 4,670 |
| 5 | 5,150 | 5,110 | 99,340 | 36,940 | 30,750 | 10,510 | 4,670 |
| 6 | 5,310 | 5,750 | 97,200 | 35,190 | 32,870 | 9,210 | 4,750 |
| 7 | 5,310 | 6,120 | 96,920 | 33,850 | 36,020 | 7,400 | 4,910 |
| 8 | 5,030 | 6,600 | 96,490 | 32,960 | 39,150 | 6,920 | 4,830 |
| 9 | 4,990 | 6,720 | 96,630 | 32,710 | 40,440 | 6,200 | 4,350 |
| 10 | 5,030 | 6,520 | 94,920 | 33,040 | 42,640 | 5,710 | 4,110 |
| 11 | 5,310 | 6,680 | 91,360 | 33,850 | 43,580 | 6,520 | 3,790 |
| 12 | 5,110 | 6,520 | 85,580 | 34,460 | 43,990 | 7,240 | 3,550 |
| 13 | 5,070 | 6,960 | 79,740 | 34,550 | 43,790 | 6,920 | 3,550 |
| 14 | 5,150 | 7,520 | 72,190 | 34,270 | 42,830 | 6,520 | 3,730 |
| 15 | 5,310 | 8,300 | 63,270 | 32,710 | 41,540 | 6,520 | 3,330 |
| 16 | 5,270 | 9,460 | 53,600 | 31,080 | 40,250 | 6,360 | 3,420 |
| 17 | 5,350 | 11,310 | 40,250 | 28,630 | 37,680 | 5,920 | 3,480 |
| 18 | 5,670 | 14,520 | 31,240 | 25,170 | 34,020 | 4,990 | 3,420 |
| 19 | 5,800 | 16,890 | 22,320 | 21,820 | 30,920 | 4,670 | 3,390 |
| 20 | 5,230 | 20,680 | 16,590 | 22,460 | 26,840 | 4,670 | 3,330 |
| 21 | 5,030 | 31,730 | 12,120 | 22,740 | 24,600 | 4,590 | 3,450 |
| 22 | 4,950 | 43,990 | 9,000 | 22,600 | 22,180 | 4,590 | 3,480 |
| 23 | 4,910 | 58,550 | 11,010 | 23,170 | 21,750 | 4,790 | 3,480 |
| 24 | 5,190 | 71,580 | 16,350 | 23,460 | 21,890 | 4,430 | 3,480 |
| 25 | 5,750 | 82,660 | 22,180 | 25,590 | 22,320 | 3,870 | 3,360 |
| 26 | 6,200 | 92,500 | 30,100 | 27,000 | 22,390 | 3,670 | 3,610 |
| 27 | 6,320 | 99,910 | 39,700 | 27,490 | 22,460 | 3,610 | 3,760 |
| 28 | 5,920 | 104,470 | 47,160 | 27,980 | 22,320 | 3,480 | 3,870 |
| 29 | 5,030 | 107,040 | 49,820 | 27,980 | 21,680 | 3,390 | 3,870 |
| 30 | 5,390 | 107,950 | 47,260 | 27,650 | 18,660 | 3,240 | 4,350 |
| 31 | 5,310 | | 44,610 | | 15,370 | 3,480 | |

### SNAKE RIVER AT NEELEY, IDAHO

LOCATION.—In sec. 11, T. 8 S., R. 30 E., half a mile north of Neeley post office, Power County, 4 miles southwest of American Falls, and 32 miles above Minidoka Dam. Portneuf River, Bannock Creek, and 2,500 second-feet of spring water enter Snake River between this station and station at Clough ranch. Raft River enters 18 miles below Neeley.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 17, 1906, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank; inspected by A. J. Ayres.

DISCHARGE MEASUREMENTS.—Made from cable at gage.

CHANNEL AND CONTROL.—Bed at measuring section rough; particularly so near right bank. Banks high. One channel at all stages. Control composed of lava rock probably partly overlain with coarse gravel; shifts slightly.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.85 feet at 8 a. m. April 21 (discharge, 11,600 second-feet); minimum stage, 3.81 feet at 6.30 p. m. September 17 (discharge, 2,440 second-feet).

1906–1926: Actual maximum stage doubtful; maximum mean daily stage, 13.5 feet June 20, 1918 (discharge, 48,400 second-feet); minimum stage, about 2.97 feet from 11 a. m. to 4 p. m. October 7, 1924 (discharge about 1,040 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Numerous canals near Blackfoot and Idaho Falls divert practically entire natural summer flow of Snake River. American Falls Reservoir, now nearing completion, will provide storage for future excess summer flow.

REGULATION.—Summer flow augmented by stored water from Jackson Lake for use on Minidoka and Twin Falls tracts. Low stages due to operation of power plant 4 miles upstream.

ACCURACY.—Stage-discharge relation fairly permanent; affected by ice January 11–15, 17–21, and January 24 to February 3. Curve fairly well defined. Operation of water-stage recorder satisfactory except for periods during winter when well was frozen. Daily discharge ascertained by applying mean daily gage height to rating table except as noted in footnote to table of daily discharge. Records good except for period affected by ice in January.

*Discharge measurements of Snake River at Neeley, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 22 | 5.71 | 7,580 | June 25 | 6.01 | 8,790 | Sept. 14 | 3.94 | 2,800 |
| Apr. 12 | 6.13 | 8,890 | June 27 | 5.93 | 8,300 | Sept. 15 | 4.10 | 3,150 |
| Apr. 23 | 6.02 | 8,290 | July 8 | 5.92 | 8,070 | Sept. 19 | 3.97 | 2,790 |
| Apr. 18 | 6.27 | 9,630 | Aug. 13 | 4.80 | 4,830 | | | |
| June 4 | 6.03 | 8,510 | Aug. 17 | 4.65 | 4,380 | | | |

*Daily discharge, in second-feet, of Snake River at Neeley, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6,970 | 7,430 | 7,000 | 5,010 | 5,450 | 6,070 | 6,880 | 9,460 | 8,720 | 8,130 | 6,470 | 2,920 |
| 2 | 7,100 | 7,530 | 7,070 | 5,090 | 5,850 | 6,250 | 6,810 | 9,610 | 8,680 | 8,200 | 5,950 | 3,050 |
| 3 | 7,170 | 7,560 | 7,100 | 5,010 | 5,770 | 6,250 | 6,530 | 9,610 | 8,510 | 8,300 | 5,800 | 3,320 |
| 4 | 6,840 | 7,560 | 7,130 | 5,010 | 5,920 | 6,250 | 6,470 | 9,610 | 8,480 | 8,170 | 5,490 | 3,570 |
| 5 | 6,720 | 7,690 | 7,230 | 5,010 | 6,100 | 6,280 | 6,380 | 9,500 | 8,200 | 7,830 | 5,490 | 3,640 |
| 6 | 6,010 | 7,760 | 7,330 | 5,290 | 6,220 | 6,440 | 6,560 | 9,210 | 8,070 | 8,100 | 5,370 | 3,640 |
| 7 | 6,940 | 7,760 | 7,260 | 5,600 | 6,320 | 6,530 | 6,720 | 8,860 | 8,000 | 8,300 | 5,070 | 3,500 |
| 8 | 7,330 | 7,660 | 7,230 | 5,630 | 6,350 | 6,530 | 7,200 | 8,650 | 8,130 | 8,240 | 4,030 | 3,500 |
| 9 | 7,230 | 7,560 | 7,200 | 5,690 | 6,560 | 6,410 | 7,860 | 8,440 | 8,340 | 8,030 | 4,060 | 3,600 |
| 10 | 7,400 | 7,530 | 7,170 | 5,720 | 7,000 | 6,250 | 8,480 | 8,480 | 8,340 | 8,100 | 3,840 | 3,360 |
| 11 | 7,360 | 7,530 | 7,040 | } | 7,500 | 6,190 | 8,370 | 8,790 | 8,410 | 8,200 | 3,840 | 3,140 |
| 12 | 7,660 | 7,460 | 7,000 | | 7,530 | 6,410 | 8,930 | 8,720 | 8,540 | 7,960 | 4,430 | 3,030 |
| 13 | 7,730 | 7,530 | 6,970 | 5,600 | 7,230 | 6,440 | 9,000 | 8,410 | 8,340 | 7,460 | 4,740 | 2,790 |
| 14 | 7,830 | 7,530 | 6,940 | | 7,070 | 6,320 | 9,070 | 8,440 | 8,480 | 7,360 | 4,660 | 2,700 |
| 15 | 8,000 | 7,260 | 6,880 | } | 6,840 | 6,380 | 9,250 | 8,100 | 8,860 | 7,040 | 4,560 | 2,920 |
| 16 | 7,960 | 7,130 | 6,690 | 5,430 | 6,380 | 6,620 | 9,390 | 8,100 | 8,620 | 6,880 | 4,530 | 2,750 |
| 17 | 7,930 | 7,530 | 6,720 | } | 5,920 | 6,720 | 9,540 | 8,860 | 8,720 | 6,880 | 4,330 | 2,660 |
| 18 | 7,860 | 7,230 | 6,720 | | 5,890 | 6,840 | 9,610 | 9,320 | 8,720 | 6,940 | 3,910 | 2,700 |
| 19 | 7,830 | 7,400 | 6,780 | 5,800 | 6,160 | 7,230 | 10,510 | 7,430 | 8,340 | 7,200 | 3,520 | 2,770 |
| 20 | 7,730 | 7,400 | 6,780 | } | 6,590 | 7,560 | 11,160 | 6,160 | 8,200 | 7,130 | 3,410 | 2,790 |
| 21 | 7,630 | 7,400 | 6,780 | | 6,470 | 7,460 | 9,940 | 5,690 | 8,300 | 6,840 | 3,450 | 2,770 |
| 22 | 7,500 | 7,260 | 6,840 | 5,800 | 6,250 | 7,400 | 8,370 | 4,900 | 8,300 | 6,970 | 3,500 | 2,790 |
| 23 | 7,360 | 7,070 | 6,840 | 5,830 | 6,160 | 7,460 | 8,510 | 4,580 | 8,340 | 6,010 | 3,500 | 2,830 |
| 24 | 7,300 | 6,940 | 6,840 | } | 6,100 | 7,360 | 8,900 | 5,950 | 8,440 | 5,370 | 3,570 | 2,870 |
| 25 | 7,260 | 6,970 | 6,560 | | 6,190 | 7,430 | 8,620 | 7,530 | 8,440 | 5,400 | 3,270 | 2,750 |
| 26 | 7,200 | 6,970 | 6,880 | | 6,250 | 7,760 | 7,900 | 8,000 | 8,900 | 5,510 | 3,050 | 2,900 |
| 27 | 7,130 | 7,000 | 6,840 | 5,500 | 6,220 | 8,030 | 7,730 | 6,530 | 8,510 | 5,690 | 2,940 | 2,900 |
| 28 | 7,100 | 6,970 | 6,690 | | 6,100 | 7,900 | 8,620 | 6,250 | 8,170 | 5,630 | 2,920 | 3,050 |
| 29 | 7,100 | 6,910 | 6,440 | | ------- | 7,500 | 8,900 | 6,280 | 8,200 | 5,600 | 2,900 | 3,120 |
| 30 | 7,230 | 7,070 | 6,070 | | ------- | 6,910 | 9,000 | 7,760 | 8,170 | 6,590 | 2,870 | 3,340 |
| 31 | 7,260 | ------- | 5,210 | | ------- | 6,970 | ------- | 8,900 | ------- | 7,040 | 2,750 | ------- |

NOTE.—Recorder not operating and stage-discharge relation affected by ice Jan. 11 to Feb. 2; discharge interpolated or estimated from temperature records and observer's notes. Braced figures represent mean discharge for periods indicated.

*Monthly discharge of Snake River at Neeley, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 8,000 | 6,010 | 7,340 | 451,000 |
| November | 7,760 | 6,910 | 7,350 | 437,000 |
| December | 7,330 | 5,210 | 6,850 | 421,000 |
| January | ------- | 5,010 | 5,520 | 339,000 |
| February | 7,530 | 5,450 | 6,370 | 354,000 |
| March | 8,030 | 6,070 | 6,840 | 421,000 |
| April | 11,160 | 6,380 | 8,370 | 498,000 |
| May | 9,610 | 4,580 | 7,940 | 488,000 |
| June | 8,900 | 8,000 | 8,420 | 501,000 |
| July | 8,300 | 5,370 | 7,130 | 438,000 |
| August | 6,470 | 2,750 | 4,140 | 255,000 |
| September | 3,640 | 2,660 | 3,060 | 182,000 |
| The year | 11,160 | 2,660 | 6,610 | 4,785,000 |

### LAKE WALCOTT NEAR MINIDOKA, IDAHO

LOCATION.—In sec. 1, T. 9 S., R. 25 E., in backwater of United States Bureau of Reclamation dam and 6 miles southeast of Minidoka post office, Minidoka County.

RECORDS AVAILABLE.—April 1, 1909, to September 30, 1926; gage heights only prior to October 1, 1918.

GAGE.—Hook gage in wood stilling well on face of dam at entrance to power house. Zero of gage, 4,200 feet above mean sea level.

ACCURACY.—Gage heights occasionally affected by wind.

COOPERATION.—Gage-height record and table of contents furnished by United States Bureau of Reclamation.

Lake Walcott impounds water for the irrigation of lands in North Side and South Side Minidoka projects of the United States Bureau of Reclamation. It has a capacity of 107.240 acre-feet between elevations 4,236 and 4,246 feet; elevation of spillway, 4,240 feet, sea-level datum.

*Daily contents, in acre-feet, of Lake Walcott near Minidoka, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 96,270 | 97,230 | 94,370 | 88,430 | 88,660 | 90,180 | 100,250 | 98,920 | 108,110 | 106,030 | 105,430 | 51,390 |
| 2 | 96,270 | 95,910 | 91,340 | 88,310 | 88,780 | 90,290 | 99,880 | 99,640 | 107,240 | 105,070 | 103,860 | 50,520 |
| 3 | 95,790 | 96,510 | 92,740 | 88,200 | 89,010 | 90,060 | 99,760 | 99,880 | 107,490 | 105,070 | 102,170 | 48,830 |
| 4 | 95,910 | 96,990 | 92,160 | 88,080 | 89,010 | 90,180 | 100,010 | 100,730 | 106,990 | 103,980 | 99,520 | 48,310 |
| 5 | 95,310 | 97,230 | 92,390 | 87,960 | 89,940 | 90,180 | 99,640 | 101,570 | 106,030 | 103,620 | 96,510 | 47,360 |
| 6 | 94,490 | 97,350 | 91,340 | 87,380 | 89,600 | 90,290 | 99,160 | 102,540 | 106,030 | 102,660 | 94,370 | 45,240 |
| 7 | 92,510 | 97,350 | 91,230 | 88,660 | 89,480 | 90,290 | 99,160 | 102,170 | 105,430 | 102,660 | 91,810 | 44,500 |
| 8 | 95,430 | 97,350 | 90,880 | 89,010 | 90,180 | 90,410 | 99,280 | 100,010 | 104,100 | 102,660 | 88,430 | 42,920 |
| 9 | 96,990 | 97,350 | 90,640 | 89,010 | 90,530 | 89,830 | 99,880 | 100,970 | 102,900 | 103,500 | 86,680 | 41,440 |
| 10 | 96,390 | 97,110 | 90,530 | 89,010 | 90,410 | 89,940 | 100,850 | 100,490 | 102,780 | 103,020 | 85,520 | 39,130 |
| 11 | 95,430 | 97,110 | 90,410 | 89,250 | 90,880 | 89,830 | 101,210 | 101,450 | 101,690 | 103,980 | 85,170 | 37,780 |
| 12 | 95,310 | 98,200 | 89,710 | 89,010 | 91,690 | 89,710 | 101,210 | 101,690 | 101,330 | 105,310 | 83,890 | 35,810 |
| 13 | 95,180 | 97,720 | 90,530 | 88,900 | 91,570 | 89,710 | 102,050 | 101,570 | 101,570 | 105,670 | 85,050 | 34,780 |
| 14 | 94,840 | 97,840 | 90,530 | 88,780 | 91,110 | 90,530 | 102,050 | 101,450 | 100,370 | 105,430 | 86,100 | 33,950 |
| 15 | 94,950 | 97,840 | 90,880 | 88,660 | 90,990 | 91,340 | 102,050 | 100,610 | 100,490 | 105,190 | 86,570 | 33,120 |
| 16 | 94,840 | 96,990 | 90,760 | 88,660 | 90,530 | 90,410 | 102,050 | 99,400 | 101,690 | 105,190 | 85,520 | 33,120 |
| 17 | 94,840 | 97,350 | 90,530 | 88,550 | 90,180 | 90,640 | 102,050 | 97,110 | 102,660 | 104,700 | 82,520 | 31,040 |
| 18 | 94,950 | 97,720 | 90,290 | 88,310 | 89,360 | 90,880 | 101,570 | 99,640 | 103,380 | 103,980 | 79,030 | 27,970 |
| 19 | 95,180 | 97,960 | 90,180 | 88,550 | 89,360 | 92,740 | 101,570 | 101,330 | 103,740 | 103,140 | 74,970 | 25,120 |
| 20 | 95,430 | 97,470 | 90,640 | 88,660 | 89,130 | 95,070 | 101,810 | 99,400 | 102,660 | 102,540 | 70,510 | 22,890 |
| 21 | 95,180 | 97,350 | 90,640 | 89,010 | 89,830 | 97,350 | 104,460 | 100,730 | 103,860 | 103,380 | 64,800 | 19,240 |
| 22 | 95,180 | 97,350 | 90,640 | 89,130 | 89,940 | 98,320 | 104,940 | 101,090 | 104,220 | 102,540 | 63,480 | 17,460 |
| 23 | 94,490 | 97,230 | 90,640 | 89,130 | 89,830 | 98,200 | 104,580 | 99,280 | 104,340 | 102,170 | 62,380 | 13,990 |
| 24 | 94,020 | 96,870 | 90,990 | 89,010 | 89,480 | 99,040 | 104,820 | 97,350 | 104,940 | 101,090 | 61,060 | 12,900 |
| 25 | 90,990 | 96,630 | 90,880 | 89,010 | 90,180 | 99,280 | 104,220 | 99,760 | 106,030 | 100,730 | 59,770 | 12,700 |
| 26 | 91,570 | 96,390 | 90,290 | 88,660 | 90,180 | 99,280 | 103,260 | 103,260 | 106,510 | 100,010 | 56,980 | 11,710 |
| 27 | 95,790 | 96,390 | 90,990 | 88,550 | 90,060 | 100,490 | 102,290 | 105,190 | 107,490 | 100,130 | 54,610 | 12,310 |
| 28 | 100,010 | 95,550 | 90,530 | 88,550 | 90,060 | 100,370 | 100,370 | 105,550 | 107,490 | 100,490 | 52,030 | 12,700 |
| 29 | 99,400 | 95,180 | 90,290 | 88,550 | ------- | 100,250 | 100,010 | 105,790 | 107,240 | 101,330 | 50,850 | 14,190 |
| 30 | 98,680 | 95,180 | 90,530 | 88,900 | ------- | 100,250 | 99,040 | 105,190 | 106,270 | 101,810 | 50,740 | 13,600 |
| 31 | 97,720 | ------- | 89,130 | 88,780 | ------- | 99,400 | ------- | 108,360 | ------- | 104,220 | 50,850 | ------- |

### SNAKE RIVER NEAR MINIDOKA, IDAHO

LOCATION.—In sec. 2, T. 9 S., R. 25 E., 100 yards below Howells Ferry, 1 mile below United States Bureau of Reclamation dam, 6 miles southeast of Minidoka post office, Minidoka County, nearest railroad point, and 6 miles above Montgomerys Ferry gaging station, which was discontinued December 31, 1910. Raft River enters between this station and station at Neeley.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 21, 1910, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank; inspected by employees of United States Bureau of Reclamation.

DISCHARGE MEASUREMENTS.—Made from cable about 50 feet below gage.

CHANNEL AND CONTROL.—Bed of coarse gravel. One channel at all stages. Control shifts slightly.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.73 feet at 12.30 a. m. April 18 and noon April 20 (discharge, 8,990 second-feet); minimum stage, 4.15 feet at 5 p. m. August 21 (discharge, 1,520 second-feet).

**1910–1926**: Maximum stage recorded, 16.02 feet at 1 a. m. June 21, 1918 (discharge, 45,900 second-feet); minimum stage, 4.05 feet from 11 a. m. to 3 p. m. October 13, 1914 (discharge, 960 second-feet).

ICE.—Some shore ice forms near gage and river closes farther downstream; stage-discharge relation slightly affected at times.

DIVERSIONS.—The North Side and South Side (Minidoka) Canals divert water between Neeley and Minidoka gaging stations. Nearest diversions below station are Twin Falls North Side and South Side Canals at Milner.

REGULATION.—Flow partly regulated by storage in Lake Walcott above Minidoka Dam (storage capacity about 67,000 acre-feet above spillway).

ACCURACY.—Stage-discharge relation not permanent. Rating curve fairly well defined for low and medium stages. Operation of water-stage recorder satisfactory. Daily discharge ascertained October 1 to July 30 by applying mean daily gage height to rating table, and July 31 to September 30 by shifting-control method. Records good.

COOPERATION.—Gage-height record furnished by United States Bureau of Reclamation.

*Discharge measurements of Snake River near Minidoka, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 23 | 7.24 | 7,680 | Aug. 14 | 4.75 | 2,230 | Sept. 19 | 5.70 | 3,820 |
| Apr. 13 | 7.39 | 8,030 | Aug. 16 | 5.71 | 3,990 | | | |
| June 26 | 6.41 | 5,420 | Sept. 16 | 4.95 | 2,430 | | | |

*Daily discharge, in second-feet, of Snake River near Minidoka, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6,000 | 6,900 | 7,680 | 5,440 | 5,540 | 6,340 | 6,310 | 6,580 | 5,950 | 5,777 | 4,970 | 2,410 |
| 2 | 6,310 | 6,580 | 7,010 | 5,340 | 5,640 | 6,310 | 6,130 | 6,500 | 6,000 | 5,740 | 4,940 | 3,220 |
| 3 | 6,390 | 6,500 | 7,280 | 5,310 | 5,840 | 6,340 | 6,050 | 6,440 | 5,920 | 5,820 | 4,890 | 3,260 |
| 4 | 6,290 | 6,900 | 7,150 | 5,210 | 6,030 | 6,340 | 5,820 | 6,210 | 5,690 | 5,610 | 5,010 | 3,340 |
| 5 | 6,230 | 6,980 | 7,510 | 5,180 | 6,260 | 6,420 | 5,97 | 6,340 | 5,660 | 5,440 | 4,800 | 3,600 |
| 6 | 6,310 | 7,040 | 7,400 | 5,240 | 6,230 | 6,520 | 6,000 | 6,420 | 5,510 | 5,310 | 4,610 | 2,700 |
| 7 | 5,560 | 7,090 | 7,370 | 5,560 | 6,340 | 6,390 | 6,000 | 6,290 | 5,560 | 5,560 | 4,870 | 2,590 |
| 8 | 5,280 | 7,060 | 7,150 | 5,820 | 6,550 | 6,500 | 6,100 | 5,900 | 5,660 | 5,480 | 4,560 | 2,650 |
| 9 | 6,310 | 6,930 | 6,980 | 5,820 | 6,710 | 6,260 | 6,470 | 5,690 | 5,660 | 5,440 | 2,700 | 2,560 |
| 10 | 6,740 | 6,850 | 6,900 | 5,790 | 6,850 | 6,340 | 7,010 | 5,820 | 5,610 | 5,060 | 2,480 | 2,720 |
| 11 | 6,880 | 6,930 | 7,040 | 5,900 | 7,450 | 6,230 | 7,200 | 5,870 | 5,660 | 5,110 | 2,370 | 3,060 |
| 12 | 6,900 | 7,090 | 6,710 | 5,900 | 7,760 | 6,130 | 7,560 | 5,870 | 5,560 | 5,060 | 2,290 | 2,800 |
| 13 | 6,930 | 7,120 | 6,850 | 5,790 | 7,510 | 6,260 | 7,870 | 5,790 | 5,640 | 5,110 | 2,250 | 2,640 |
| 14 | 6,980 | 7,150 | 7,010 | 5,690 | 7,200 | 6,390 | 7,930 | 5,790 | 5,610 | 5,060 | 2,250 | 2,700 |
| 15 | 7,040 | 7,120 | 7,010 | 5,710 | 7,060 | 6,390 | 7,960 | 5,820 | 5,560 | 4,610 | 2,700 | 2,480 |
| 16 | 7,120 | 6,690 | 6,930 | 5,640 | 6,740 | 6,340 | 7,930 | 5,770 | 5,610 | 4,630 | 3,950 | 3,110 |
| 17 | 6,930 | 6,800 | 6,800 | 5,440 | 6,440 | 6,260 | 7,930 | 6,000 | 5,610 | 4,630 | 4,100 | 3,930 |
| 18 | 6,880 | 7,010 | 6,690 | 5,480 | 6,130 | 5,900 | 7,620 | 5,640 | 5,610 | 4,630 | 4,130 | 3,930 |
| 19 | 6,930 | 7,010 | 6,660 | 5,640 | 5,920 | 5,690 | 8,070 | 5,260 | 5,610 | 4,680 | 4,170 | 3,930 |
| 20 | 6,960 | 6,880 | 6,880 | 5,820 | 6,310 | 5,770 | 8,350 | 3,400 | 5,640 | 4,650 | 4,150 | 3,950 |
| 21 | 6,960 | 6,820 | 7,010 | 5,900 | 6,470 | 6,550 | 7,340 | 2,720 | 5,510 | 4,650 | 3,100 | 3,730 |
| 22 | 6,980 | 6,850 | 6,930 | 5,920 | 6,440 | 7,040 | 6,130 | 2,670 | 5,340 | 4,680 | 2,410 | 3,750 |
| 23 | 7,120 | 6,800 | 6,820 | 5,970 | 6,340 | 6,550 | 6,420 | 2,730 | 5,240 | 4,350 | 2,370 | 3,750 |
| 24 | 7,040 | 6,440 | 6,960 | 5,950 | 6,080 | 7,090 | 6,470 | 2,730 | 5,380 | 3,130 | 2,390 | 2,990 |
| 25 | 7,200 | 6,520 | 6,930 | 5,900 | 6,420 | 6,850 | 6,420 | 2,990 | 5,280 | 3,130 | 2,410 | 2,860 |
| 26 | 5,580 | 6,520 | 6,710 | 5,820 | 6,470 | 6,390 | 6,100 | 3,340 | 5,310 | 3,060 | 2,400 | 2,620 |
| 27 | 3,630 | 6,900 | 6,880 | 5,660 | 6,420 | 6,930 | 5,970 | 3,420 | 5,440 | 3,060 | 2,370 | 2,560 |
| 28 | 5,920 | 6,740 | 6,820 | 5,640 | 6,290 | 7,560 | 6,260 | 3,320 | 5,440 | 3,020 | 2,370 | 2,360 |
| 29 | 6,930 | 6,470 | 6,740 | 5,640 | ------- | 6,800 | 6,390 | 3,020 | 5,690 | 3,020 | 2,240 | 2,250 |
| 30 | 7,120 | 7,120 | 6,690 | 5,770 | ------- | 6,710 | 6,470 | 3,560 | 5,840 | 3,000 | 2,230 | 2,560 |
| 31 | 7,040 | ------- | 6,000 | 5,660 | ------- | 6,340 | ------- | 5,790 | ------- | 3,360 | 2,140 | ------- |

*Monthly discharge of Snake River near Minidoka, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 7,200 | 3,630 | 6,530 | 402,000 |
| November | 7,150 | 6,440 | 6,860 | 408,000 |
| December | 7,680 | 6,000 | 6,950 | 427,000 |
| January | 5,970 | 5,180 | 5,660 | 348,000 |
| February | 7,760 | 5,540 | 6,480 | 360,000 |
| March | 7,560 | 5,690 | 6,450 | 397,000 |
| April | 8,350 | 5,820 | 6,810 | 405,000 |
| May | 6,580 | 2,670 | 4,960 | 305,000 |
| June | 6,000 | 5,240 | 5,590 | 333,000 |
| July | 5,820 | 3,000 | 4,580 | 282,000 |
| August | 5,010 | 2,140 | 3,280 | 202,000 |
| September | 3,950 | 2,250 | 3,030 | 180,000 |
| The year | 8,350 | 2,140 | 5,590 | 4,050,000 |

### LAKE MILNER AT MILNER, IDAHO

LOCATION.—In sec. 29, T. 10 S., R. 21 E., in backwater of Twin Falls companies' dam at Milner, Cassia County.

RECORDS AVAILABLE.—April 10, 1911, to September 30, 1926.

GAGE.—Hook gage supplemented by float gage in same well at dam.

ACCURACY.—Gage heights occasionally seriously affected by wind. Gage read to hundredths twice daily.

COOPERATION.—Gage-height record furnished by North Side Canal Co. (Ltd.) and Twin Falls Canal Co.

*Daily gage height, in feet, of Lake Milner at Milner, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10.48 | 8.98 | 8.12 | 7.48 | 7.54 | 7.65 | 8.96 | 10.92 | 10.85 | 10.90 | 10.08 | 8.98 |
| 2 | 10.40 | 8.78 | 7.62 | 7.69 | 7.60 | 7.60 | 9.04 | 10.96 | 10.94 | 10.88 | 10.00 | 8.98 |
| 3 | 10.18 | 8.78 | 7.66 | 7.66 | 7.62 | 7.56 | 9.02 | 10.99 | 11.08 | 10.80 | 10.04 | 8.93 |
| 4 | 9.94 | 8.99 | 7.66 | 7.65 | 7.60 | 7.55 | 9.03 | 10.84 | 11.08 | 10.88 | 9.94 | 8.78 |
| 5 | 9.72 | 8.84 | 7.56 | 7.64 | 7.66 | 7.47 | 9.02 | 10.82 | 10.96 | 10.87 | 9.94 | 8.73 |
| 6 | 9.50 | 8.88 | 7.56 | 7.51 | 7.54 | 7.66 | 9.00 | 10.97 | 10.97 | 10.74 | 9.88 | 8.72 |
| 7 | 9.50 | 8.96 | 7.52 | 7.65 | 7.60 | 7.56 | 9.00 | 10.99 | 10.78 | 10.50 | 9.84 | 8.63 |
| 8 | 9.26 | 8.99 | 7.48 | 7.72 | 7.66 | 7.59 | 9.04 | 10.78 | 10.72 | 10.70 | 9.81 | 8.88 |
| 9 | 9.42 | 8.92 | 7.48 | 7.72 | 7.62 | 7.48 | 8.03 | 10.78 | 10.74 | 10.94 | 9.78 | 9.11 |
| 10 | 9.53 | 8.92 | 7.50 | 7.69 | 7.62 | 7.72 | 8.20 | 10.74 | 10.74 | 10.86 | 9.70 | 9.14 |
| 11 | 9.46 | 8.93 | 7.56 | 7.66 | 7.58 | 8.20 | 9.32 | 10.80 | 10.66 | 10.78 | 9.52 | 9.44 |
| 12 | 9.30 | 8.94 | 7.48 | 7.70 | 7.63 | 8.07 | 9.32 | 10.86 | 10.68 | 10.70 | 9.32 | 9.46 |
| 13 | 9.26 | 8.80 | 7.58 | 7.62 | 7.60 | 8.18 | 9.28 | 10.79 | 10.62 | 10.56 | 9.32 | 9.58 |
| 14 | 9.25 | 8.42 | 7.60 | 7.62 | 7.58 | 8.24 | 9.95 | 10.74 | 10.62 | 10.58 | 9.20 | 9.68 |
| 15 | 9.16 | 8.44 | 7.60 | 7.52 | 7.60 | 8.26 | 10.35 | 10.76 | 10.55 | 10.48 | 9.14 | 9.76 |
| 16 | 9.10 | 8.54 | 7.60 | 7.62 | 7.54 | 8.21 | 10.30 | 10.81 | 10.60 | 10.44 | 9.29 | 9.74 |
| 17 | 8.94 | 8.34 | 7.58 | 7.60 | 7.61 | 8.24 | 10.34 | 10.60 | 10.76 | 10.36 | 9.32 | 10.14 |
| 18 | 9.03 | 8.70 | 7.58 | 7.53 | 7.52 | 8.26 | 10.31 | 10.82 | 10.82 | 10.32 | 9.25 | 10.71 |
| 19 | 9.06 | 8.59 | 7.52 | 7.60 | 7.59 | 8.48 | 10.36 | 10.78 | 10.86 | 10.30 | 9.32 | 11.00 |
| 20 | 9.00 | 8.50 | 7.63 | 7.60 | 7.56 | 8.69 | 10.62 | 10.52 | 10.84 | 10.12 | 9.39 | 10.76 |
| 21 | 8.94 | 8.48 | 7.63 | 7.62 | 7.64 | 8.93 | 10.92 | 10.45 | 10.96 | 10.19 | 9.44 | 10.63 |
| 22 | 8.97 | 8.52 | 7.60 | 7.63 | 7.48 | 9.02 | 10.64 | 10.40 | 11.01 | 10.09 | 9.50 | 10.53 |
| 23 | 8.94 | 8.54 | 7.54 | 7.65 | 7.45 | 8.81 | 10.72 | 10.25 | 10.94 | 10.11 | 9.52 | 10.30 |
| 24 | 9.01 | 8.38 | 7.63 | 7.60 | 7.23 | 8.96 | 10.92 | 10.06 | 10.87 | 10.00 | 9.54 | 10.24 |
| 25 | 8.86 | 8.16 | 7.61 | 7.62 | 7.56 | 9.08 | 11.00 | 10.20 | 10.84 | 10.06 | 9.45 | 10.46 |
| 26 | 9.11 | 8.15 | 7.60 | 7.60 | 7.56 | 9.00 | 10.98 | 10.25 | 10.84 | 10.07 | 9.38 | 10.46 |
| 27 | 8.56 | 8.18 | 7.66 | 7.58 | 7.58 | 9.01 | 10.89 | 10.10 | 10.82 | 10.00 | 9.35 | 10.33 |
| 28 | 9.03 | 8.10 | 7.65 | 7.54 | 7.56 | 9.02 | 10.80 | 10.22 | 10.86 | 10.07 | 9.36 | 10.32 |
| 29 | 9.12 | 8.03 | 7.64 | 7.64 | ------ | 8.92 | 10.87 | 10.33 | 10.86 | 10.09 | 9.31 | 10.22 |
| 30 | 9.00 | 8.05 | 7.62 | 7.58 | ------ | 9.02 | 10.72 | 10.10 | 10.97 | 10.12 | 8.82 | 9.78 |
| 31 | 9.02 | ------ | 7.54 | 7.60 | ------ | 8.99 | ------ | 10.72 | ------ | 10.05 | 9.04 | ------ |

### SNAKE RIVER AT MILNER, IDAHO

LOCATION.—In sec. 29, T. 10 S., R. 21 E., 500 yards below Milner Dam, at Milner, Twin Falls County. No tributaries enter Snake River between Minidoka station and Milner, and no noteworthy inflow between Milner and station near Twin Falls except seepage and spring water.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 10, 1909, to September 30, 1926.

GAGE.—Friez recorder on left bank below highway bridge; inspected by W. N. McConnel.

DISCHARGE MEASUREMENTS.—Made from a cable 400 yards above gage, from foot planks midway between gage and cable, or by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock, overlain with very slight gravel deposits and occasional loose rock. Left bank high and steep; right bank confines flow in narrow gorge below 15-foot stage; full river width above that point. Control practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 11.58 feet at 9 a. m. November 2 (discharge, 7,400 second-feet); minimum stage, 1.43 feet at 5.30 p. m. September 7 (discharge, 10 second-feet).

1909–1926: Maximum stage recorded, 20.1 feet (original gage) June 12, 1909 (discharge, 44,400 second-feet); minimum discharge, 8 second-feet August 22–26, 1924 (gage height, 1.50 feet).

ICE.—Stage-discharge relation not seriously affected by ice.

DIVERSIONS.—Twin Falls Canals divert water at Milner Dam just above station, and two pumping plants, P. A. Lateral, and Milner Low Lift Canal divert from backwater of Milner Dam. During part of season practically entire flow of river is taken by these canals.

REGULATION.—Flow past station during irrigation season is regulated at Milner Dam.

ACCURACY.—Stage-discharge relation not permanent. Rating curve fairly well defined. Operation of water-stage recorder satisfactory, except during extremely low stages, when staff gage was read to hundredths twice daily. Discharge ascertained by applying mean daily gage height to rating table October 1 to April 21, and by shifting-control method April 22 to September 30. Records good.

COOPERATION.—Gage-height record and seven discharge measurements furnished by Twin Falls Canal Co.

*Discharge measurements of Snake River at Milner, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Nov 7 | 11.23 | 7,010 | May 4 | 1.84 | 23.4 | Aug. 23 | 1.49 | 11.9 |
| Apr. 16 | 7.55 | 3,180 | May 14 | 1.66 | 16.5 | Sept. 17 | 1.62 | 16.0 |
| Apr. 17 | 7.70 | 3,270 | May 28 | 1.50 | 11.1 | Sept. 18 | 1.83 | 25.6 |
| May 1 | 1.89 | 27.3 | June 26 | 1.49 | 11.5 | | | |

*Daily discharge, in second-feet, of Snake River at Milner, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3,880 | 5,990 | 6,650 | 4,390 | 4,700 | 5,550 | 4,500 | 27 | 13 | 13 | 11 | 11 |
| 2 | 4,700 | 6,540 | 6,430 | 3,980 | 4,600 | 5,550 | 3,380 | 27 | 13 | 12 | 12 | 11 |
| 3 | 5,120 | 6,320 | 6,210 | 4,080 | 4,810 | 5,550 | 3,180 | 25 | 19 | 14 | 12 | 11 |
| 4 | 5,020 | 5,230 | 6,320 | 3,980 | 4,920 | 5,550 | 3,080 | 24 | 22 | 14 | 11 | 11 |
| 5 | 4,920 | 4,390 | 6,430 | 4,080 | 5,550 | 5,230 | 3,380 | 22 | 14 | 13 | 11 | 11 |
| 6 | 4,500 | 5,770 | 6,760 | 3,980 | 5,340 | 5,990 | 3,680 | 20 | 14 | 12 | 11 | 11 |
| 7 | 4,500 | 6,980 | 6,540 | 4,390 | 5,440 | 5,440 | 3,780 | 19 | 13 | 12 | 11 | 10 |
| 8 | 3,980 | 7,090 | 6,430 | 4,700 | 5,660 | 5,230 | 3,580 | 17 | 13 | 12 | 11 | 11 |
| 9 | 4,280 | 6,980 | 6,100 | 4,920 | 5,990 | 4,920 | 3,480 | 17 | 12 | 15 | 11 | 11 |
| 10 | 5,340 | 6,650 | 5,990 | 4,920 | 5,990 | 3,980 | 3,380 | 17 | 12 | 13 | 11 | 10 |
| 11 | 5,880 | 6,760 | 6,100 | 4,920 | 5,880 | 4,600 | 4,180 | 15 | 11 | 13 | 11 | 11 |
| 12 | 5,880 | 6,650 | 5,880 | 5,020 | 6,540 | 4,500 | 4,180 | 16 | 11 | 12 | 12 | 13 |
| 13 | 5,880 | 6,540 | 5,660 | 4,920 | 6,870 | 4,700 | 4,600 | 16 | 11 | 12 | 12 | 41 |
| 14 | 5,880 | 6,210 | 5,880 | 4,810 | 6,650 | 4,920 | 3,680 | 17 | 11 | 12 | 11 | 39 |
| 15 | 6,320 | 5,550 | 5,990 | 4,600 | 5,990 | 4,920 | 4,080 | 16 | 11 | 12 | 11 | 39 |
| 16 | 5,990 | 5,880 | 6,100 | 4,920 | 5,440 | 4,500 | 3,380 | 16 | 11 | 12 | 11 | 38 |
| 17 | 5,440 | 5,990 | 5,770 | 4,700 | 5,440 | 4,390 | 3,280 | 15 | 11 | 12 | 11 | 17 |
| 18 | 5,440 | 6,320 | 5,550 | 4,390 | 5,660 | 4,080 | 3,380 | 15 | 11 | 12 | 11 | 25 |
| 19 | 5,770 | 6,210 | 5,230 | 4,700 | 5,020 | 3,880 | 2,700 | 15 | 11 | 11 | 12 | 31 |
| 20 | 5,990 | 6,100 | 5,770 | 4,810 | 5,020 | 3,880 | 2,980 | 15 | 11 | 11 | 12 | 24 |
| 21 | 5,660 | 5,880 | 5,990 | 5,020 | 5,550 | 4,080 | 2,880 | 14 | 13 | 12 | 11 | 23 |
| 22 | 5,440 | 5,880 | 5,990 | 5,120 | 5,660 | 5,120 | 115 | 13 | 14 | 11 | 11 | 21 |
| 23 | 5,230 | 5,990 | 5,770 | 5,230 | 5,120 | 4,600 | 68 | 12 | 12 | 12 | 11 | 20 |
| 24 | 5,660 | 5,990 | 5,770 | 5,020 | 5,120 | 4,280 | 46 | 12 | 12 | 11 | 11 | 20 |
| 25 | 5,120 | 5,770 | 6,100 | 5,120 | 4,920 | 4,920 | 48 | 12 | 12 | 11 | 11 | 20 |
| 26 | 5,990 | 5,770 | 5,660 | 4,920 | 5,880 | 3,580 | 41 | 12 | 12 | 11 | 11 | 20 |
| 27 | 2,130 | 5,990 | 5,770 | 4,600 | 5,660 | 3,980 | 36 | 12 | 12 | 11 | 11 | 19 |
| 28 | 2,460 | 6,320 | 5,770 | 4,390 | 5,440 | 5,340 | 32 | 12 | 12 | 11 | 11 | 19 |
| 29 | 5,990 | 6,100 | 5,770 | 4,920 | ------- | 4,600 | 30 | 12 | 14 | 11 | 11 | 18 |
| 30 | 6,210 | 5,990 | 5,770 | 5,020 | ------- | 5,660 | 28 | 43 | 13 | 11 | 11 | 16 |
| 31 | 5,990 | ------- | 5,340 | 5,020 | ------- | 5,440 | ------- | 12 | ------- | 11 | 11 | ------- |

*Monthly discharge of Snake River at Milner, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 6,320 | 2,130 | 5,180 | 319,000 |
| November | 7,090 | 4,390 | 6,130 | 365,000 |
| December | 6,760 | 5,230 | 5,980 | 368,000 |
| January | 5,230 | 3,980 | 4,700 | 289,000 |
| February | 6,870 | 4,600 | 5,530 | 307,000 |
| March | 5,990 | 3,580 | 4,810 | 296,000 |
| April | 4,600 | 28 | 2,510 | 149,000 |
| May | 43 | 12 | 17.3 | 1,060 |
| June | 22 | 11 | 12.7 | 756 |
| July | 15 | 11 | 12.0 | 738 |
| August | 12 | 11 | 11.2 | 689 |
| September | 41 | 10 | 19.4 | 1,150 |
| The year | 7,090 | 10 | 2,900 | 2,100,000 |

### SNAKE RIVER NEAR KIMBERLY, IDAHO

LOCATION.—In SE. ¼ sec. 32, T. 9 S., R. 18 E., above upper outlet of Devil's Corral, half a mile below Twin Falls, 2½ miles above Shoshone Falls, 4 miles north of Kimberly, Twin Falls County, and 6½ miles northeast of the city of Twin Falls.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—July 24, 1923, to September 30, 1926.

GAGE.—Au water-stage recorder on left bank; inspected by William Bousman and Guy Vickers.

DISCHARGE MEASUREMENTS.—Made from cable 300 feet above gage.

CHANNEL AND CONTROL.—Bed composed of lava boulders and solid rock in deep lava canyon; very rough. Control formed by low falls 70 feet below gage; permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 9.76 feet at 2 p. m. November 2 (discharge, 8,490 second-feet); minimum stage recorded, 1.0 foot May 11–30 (discharge, 405 second-feet).

1923–1926: Maximum stage, 13.3 feet at 4 to 6 a. m. May 12, 1925 (discharge, 18,000 second-feet); minimum stage, 0.80 foot May 16–20, 1924 (discharge, 378 second-feet).

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—No water diverted between this station and one at Milner.

REGULATION.—Flow past station is regulated directly by diversions of the North Side and South Side Canals at Milner, where practically entire flow of the river is diverted during a large part of the irrigation season; flow at such times consists of inflow and seepage between this station and Milner.

ACCURACY.—Stage-discharge relation permanent. Rating curve fairly well defined between 370 and 14,000 second-feet. Operation of water-stage recorder satisfactory except September 19–30. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph, except as indicated in footnote to table of daily discharge. Records good.

COOPERATION.—Gage-height record furnished by Idaho Power Co.

*Discharge measurements of Snake River near Kimberly, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 23 | 8.58 | 6,000 | Apr. 17 | 7.20 | 3,400 |
| Mar. 3 | 8.66 | 6,100 | May 1 | 1.10 | 455 |

*Daily discharge, in second-feet, of Snake River near Kimberly, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4,480 | 6,530 | 6,950 | 5,340 | 5,340 | 6,120 | 5,720 | 420 | 436 | 428 | 453 | 462 |
| 2 | 5,160 | 7,160 | 6,950 | 4,640 | 5,160 | 6,120 | 3,860 | 420 | 420 | 436 | 453 | 471 |
| 3 | 5,720 | 7,380 | 6,530 | 4,810 | 5,340 | 6,120 | 3,860 | 420 | 412 | 436 | 453 | 471 |
| 4 | 5,720 | 6,120 | 6,740 | 4,640 | 5,530 | 6,120 | 3,570 | 625 | 412 | 436 | 453 | 471 |
| 5 | 5,530 | 4,980 | 6,740 | 4,640 | 5,920 | 5,720 | 3,860 | 453 | 420 | 436 | 462 | 471 |
| 6 | 5,160 | 6,120 | 7,160 | 4,480 | 5,920 | 6,530 | 4,160 | 420 | 428 | 436 | 462 | 471 |
| 7 | 4,980 | 7,600 | 6,950 | 4,980 | 5,920 | 6,120 | 4,320 | 420 | 420 | 444 | 462 | 471 |
| 8 | 4,480 | 7,820 | 6,950 | 5,160 | 5,920 | 5,720 | 4,010 | 625 | 420 | 444 | 462 | 471 |
| 9 | 4,640 | 7,820 | 6,740 | 5,530 | 6,530 | 5,530 | 4,010 | 436 | 428 | 453 | 462 | 471 |
| 10 | 5,530 | 7,600 | 6,530 | 5,340 | 6,530 | 4,640 | 3,710 | 412 | 428 | 444 | 462 | 471 |
| 11 | 6,120 | 7,380 | 6,530 | 5,340 | 6,320 | 4,980 | 4,640 | 405 | 428 | 444 | 462 | 471 |
| 12 | 6,320 | 7,380 | 6,530 | 5,530 | 7,600 | 4,980 | 4,480 | 405 | 428 | 462 | 462 | 471 |
| 13 | 6,320 | 7,380 | 6,120 | 5,530 | 7,380 | 5,160 | 5,160 | 405 | 428 | 453 | 462 | 471 |
| 14 | 6,320 | 6,950 | 6,530 | 5,340 | 7,380 | 5,340 | 4,480 | 405 | 428 | 453 | 453 | 480 |
| 15 | 6,740 | 6,530 | 6,740 | 5,160 | 6,740 | 5,340 | 4,320 | 405 | 428 | 453 | 453 | 500 |

*Daily discharge, in second-feet, of Snake River near Kimberly, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 6,950 | 6,530 | 6,740 | 5,340 | 6,120 | 5,160 | 3,860 | 405 | 428 | 453 | 453 | 510 |
| 17 | 6,320 | 6,740 | 6,530 | 5,160 | 6,530 | 4,980 | 3,710 | 405 | 428 | 444 | 453 | 510 |
| 18 | 6,120 | 6,950 | 6,120 | 4,980 | 6,320 | 4,640 | 3,860 | 405 | 428 | 444 | 453 | 510 |
| 19 | 6,530 | 6,950 | 5,920 | 5,160 | 5,530 | 4,320 | 3,030 | 405 | 436 | 453 | 462 | |
| 20 | 6,740 | 6,740 | 6,320 | 6,320 | 5,530 | 4,480 | 3,290 | 405 | 436 | 444 | 462 | |
| 21 | 6,320 | 6,530 | 6,740 | 5,530 | 6,120 | 4,320 | 3,570 | 405 | 436 | 436 | 462 | |
| 22 | 6,020 | 6,530 | 6,740 | 5,720 | 6,320 | 5,530 | 1,180 | 405 | 436 | 436 | 462 | |
| 23 | 5,720 | 6,530 | 6,320 | 5,720 | 5,720 | 5,340 | 564 | 405 | 436 | 436 | 453 | |
| 24 | 6,530 | 6,530 | 6,320 | 5,530 | 5,920 | 4,810 | 480 | 405 | 436 | 444 | 453 | 510 |
| 25 | 5,920 | 6,320 | 6,740 | 5,530 | 5,340 | 5,530 | 520 | 405 | 436 | 444 | 453 | |
| 26 | 6,740 | 6,120 | 6,320 | 5,530 | 6,530 | 4,320 | 760 | 405 | 428 | 444 | 453 | |
| 27 | 4,320 | 6,320 | 6,320 | 5,160 | 6,320 | 4,480 | 588 | 405 | 428 | 453 | 462 | |
| 28 | 1,710 | 6,740 | 6,320 | 4,980 | 6,120 | 5,530 | 490 | 405 | 428 | 444 | 462 | |
| 29 | 6,120 | 6,320 | 6,320 | 5,340 | ------- | 5,530 | 428 | 405 | 428 | 444 | 462 | |
| 30 | 6,950 | 6,320 | 6,320 | 5,530 | ------- | 5,720 | 420 | 405 | 428 | 453 | 462 | |
| 31 | 6,530 | ------- | 6,120 | 5,720 | ------- | 6,120 | ------- | 412 | ------- | 453 | 462 | ------- |

NOTE.—Because of missing gage-height record, discharge estimated Sept. 19–30 and interpolated Oct. 22. Braced figure shows mean discharge for period indicated.

*Monthly discharge of Snake River near Kimberly, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 6,950 | 1,710 | 5,770 | 355,000 |
| November | 7,820 | 4,980 | 6,760 | 402,000 |
| December | 7,160 | 5,920 | 6,550 | 403,000 |
| January | 6,320 | 4,480 | 5,280 | 325,000 |
| February | 7,600 | 5,160 | 6,140 | 341,000 |
| March | 6,530 | 4,320 | 5,330 | 328,000 |
| April | 5,720 | 420 | 3,030 | 180,000 |
| May | 625 | 405 | 425 | 26,100 |
| June | 436 | 412 | 428 | 25,500 |
| July | 462 | 428 | 445 | 27,400 |
| August | 462 | 453 | 458 | 28,200 |
| September | ---------- | 462 | 491 | 29,200 |
| The year | 7,820 | 405 | 3,410 | 2,470,000 |

### SNAKE RIVER NEAR TWIN FALLS, IDAHO

LOCATION.—In sec. 33, T. 9 S., R. 17 E., at Perrine Bridge, on Blue Lakes ranch, 4 miles north of Twin Falls, Twin Falls County, and 4 miles below Shoshone Falls. Outlet of Blue Lakes enters Snake River 200 feet below gage and Salmon Falls Creek enters 18 miles below.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—September 29, 1911, to June 30, 1917; May 1, 1919, to September 30, 1926.

GAGE.—Combined inclined and vertical staff on left bank, 100 feet above bridge; read by P. L. Tucker.

DISCHARGE MEASUREMENTS.—Made from downstream side of bridge.

CHANNEL AND CONTROL.—Bed at measuring section very rough. Banks high; not subject to overflow. Control composed of lava boulders and solid rock; practically permanent.

EXTREMES of discharge.—Maximum stage recorded during year, 7.0 feet at 6 p. m. November 2, 7.25 a. m. November 3, 5.35 p. m. November 8 (discharge, 8,600 second-feet); minimum stage, 2.15 feet, several days in May (discharge, 545 second-feet).

1911–1917, 1919–1926: Maximum stage recorded, 13.3 feet at 6 a. m. and 7 p. m. June 10, 1914 (discharge, 32,200 second-feet); minimum discharge, 468 second-feet several periods in June, July, and August, 1915.

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—No diversions between this station and that at Milner, except by small ranch ditches.

REGULATION.—Flow past station regulated directly by diversions of North Side and South Side Canals at Milner, where practically entire flow of the river is diverted during later part of irrigation season; flow at such times consists of inflow and seepage between this and the station at Milner.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Gage read twice daily to hundredths. Daily discharge ascertained by applying mean daily gage height to rating table except as indicated in footnote to table of daily discharge. Records good.

The following discharge measurements were made:

October 22, 1925: Gage height, 6.26 feet; discharge, 6,760 second-feet.
March 25, 1926: Gage height, 5.69 feet; discharge, 5,360 second-feet.
May 3, 1926: Gage height, 2.23 feet; discharge, 570 second-feet.

*Daily discharge, in second-feet, of Snake River near Twin Falls, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4,850 | 7,140 | 7,620 | 4,640 | 5,740 | 6,430 | 7,620 | 598 | 570 | 570 | 598 | 625 |
| 2 | 5,740 | 7,860 | 7,860 | 4,850 | 5,520 | 6,430 | 4,020 | 570 | 570 | 598 | 598 | 625 |
| 3 | 6,430 | 8,100 | 7,380 | 5,070 | 5,740 | 6,660 | 4,220 | 570 | 570 | 570 | 625 | 625 |
| 4 | 6,430 | 6,900 | 7,620 | 5,070 | 5,970 | 6,430 | 4,020 | 655 | 570 | 570 | 625 | 625 |
| 5 | 6,200 | 5,520 | 7,620 | 5,070 | 6,200 | 5,970 | 4,220 | 685 | 570 | 598 | 598 | 625 |
| 6 | 5,970 | 6,900 | 7,860 | 4,850 | 6,430 | 6,900 | 4,430 | 570 | 570 | 598 | 625 | 625 |
| 7 | 5,740 | 8,360 | 7,620 | 5,290 | 6,430 | 6,430 | 4,640 | 570 | 570 | 598 | 625 | 655 |
| 8 | 5,290 | 8,360 | 7,620 | 5,520 | 6,430 | 6,200 | 4,420 | 655 | 570 | 598 | 625 | 625 |
| 9 | 5,290 | 8,360 | 7,140 | 5,740 | 6,900 | 5,970 | 4,420 | 598 | 570 | 625 | 625 | 625 |
| 10 | 6,200 | 8,100 | 7,140 | 5,740 | 6,900 | 5,070 | 4,420 | 570 | 570 | 625 | 625 | 655 |
| 11 | 7,140 | 7,860 | 7,140 | 5,740 | 6,660 | 5,070 | 5,070 | 570 | 570 | 598 | 598 | 655 |
| 12 | 7,140 | 8,100 | 7,140 | 5,970 | 8,100 | 5,520 | 4,850 | 570 | 570 | 625 | 625 | 655 |
| 13 | 7,140 | 7,860 | 6,660 | 5,970 | 7,860 | 5,520 | 5,520 | 545 | 570 | 625 | 625 | 655 |
| 14 | 7,140 | 7,620 | 6,900 | 5,970 | 7,620 | 5,740 | 5,070 | 570 | 570 | 598 | 598 | 655 |
| 15 | 7,620 | 8,360 | 7,140 | 5,740 | 6,900 | 5,740 | 4,850 | 545 | 598 | 625 | 612 | 685 |
| 16 | 7,620 | 6,900 | 7,140 | 5,970 | 6,660 | 5,740 | 4,420 | 570 | 570 | 625 | 625 | 685 |
| 17 | 7,140 | 7,380 | 7,140 | 5,740 | 6,430 | 5,290 | 4,220 | 570 | 570 | 598 | 598 | 685 |
| 18 | 6,660 | 7,620 | 6,660 | 5,290 | 6,900 | 5,076 | 4,220 | 545 | 570 | 598 | 598 | 685 |
| 19 | 6,660 | 7,380 | 6,430 | 5,520 | 5,970 | 4,640 | 3,450 | 570 | 570 | 625 | 598 | 718 |
| 20 | 7,140 | 7,380 | 6,900 | 5,740 | 5,970 | 4,850 | 4,020 | 545 | 570 | 598 | 625 | 718 |
| 21 | 7,140 | 6,900 | 7,140 | 5,970 | 6,430 | 4,640 | 4,850 | 545 | 570 | 598 | 625 | 685 |
| 22 | 6,660 | 7,140 | 7,140 | 5,970 | 6,900 | 5,970 | 1,760 | 545 | 570 | 598 | 625 | 685 |
| 23 | 6,430 | 7,140 | 6,900 | 6,200 | 6,430 | 5,740 | 895 | 545 | 570 | 598 | 625 | 685 |
| 24 | 7,140 | 7,140 | 6,660 | 5,970 | 6,430 | 5,070 | 685 | 598 | 570 | 598 | 625 | 685 |
| 25 | 6,200 | 7,140 | 7,140 | 6,200 | 5,520 | 5,970 | 570 | 545 | 598 | 612 | 598 | 685 |
| 26 | 7,380 | 6,900 | 6,900 | 5,740 | 6,900 | 4,850 | 858 | 545 | 570 | 625 | 598 | 685 |
| 27 | 5,740 | 6,900 | 6,900 | 5,520 | 6,660 | 4,850 | 858 | 545 | 570 | 598 | 625 | 685 |
| 28 | 1,760 | 7,620 | 6,900 | 5,290 | 6,430 | 5,740 | 895 | 545 | 570 | 598 | 625 | 685 |
| 29 | 6,660 | 7,140 | 6,900 | 5,970 | ------- | 6,200 | 685 | 545 | 598 | 598 | 625 | 685 |
| 30 | 7,620 | 7,140 | 6,660 | 5,970 | ------- | 6,430 | 625 | 545 | 570 | 598 | 625 | 685 |
| 31 | 7,140 | ------- | 6,430 | 6,200 | ------- | 6,430 | ------- | 570 | ------- | 598 | 625 | ------- |

NOTE.—Gage-height record missing Apr. 6, July 25, Aug. 8, 15, 22, 29, and Sept. 26; discharge interpolated.

*Monthly discharge of Snake River near Twin Falls, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 7,620 | 1,760 | 6,430 | 395,000 |
| November | 8,360 | 5,520 | 7,440 | 443,000 |
| December | 7,860 | 6,430 | 7,110 | 437,000 |
| January | 6,200 | 4,640 | 5,630 | 346,000 |
| February | 8,100 | 5,520 | 6,540 | 363,000 |
| March | 6,900 | 4,640 | 5,730 | 352,000 |
| April | 7,620 | 570 | 3,490 | 208,000 |
| May | 685 | 545 | 571 | 35,100 |
| June | 598 | 570 | 573 | 34,100 |
| July | 625 | 570 | 603 | 37,100 |
| August | 625 | 598 | 616 | 37,900 |
| September | 718 | 625 | 665 | 39,600 |
| The year | 8,360 | 545 | 3,770 | 2,730,000 |

### SNAKE RIVER NEAR HAGERMAN, IDAHO

LOCATION.—In sec. 2, T. 8 S., R. 13 E., one-eighth mile above Owsley Bridge, just above Upper Salmon Falls, and 4 miles south of Hagerman, Gooding County. Big Wood River enters 10 miles downstream.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—August 24, 1912, to June 18, 1917; July 25, 1919, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank; inspected by F. M. Gregg and J. E. Woodhead.

DISCHARGE MEASUREMENTS.—Made from cable 100 feet below gage.

CHANNEL AND CONTROL.—Control rocky; permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.75 feet afternoon of November 7 (discharge, 12,900 second-feet); minimum stage, 3.22 feet at 3 p. m. May 4 and noon July 7 (discharge, 4,520 second-feet).

1912–1917, 1919–1926: Maximum stage recorded, 7.75 feet at 6 p. m. June 10, 1914 (discharge, 35,100 second-feet); minimum stage, 3.1 feet July 15 to August 2, 1915 (discharge, 4,030 second-feet). Data insufficient in 1916 and 1917 for determination of maximum and minimum stages.

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—No large diversions between this and the station at Milner. Practically entire flow of river is diverted at Milner during part of irrigation season by the Twin Falls Canals, and flow at Owsley Bridge is maintained largely by springs and waste water from irrigation upstream.

REGULATION.—Flow directly regulated by diversions of the Twin Falls Canals at Milner.

ACCURACY.—Stage-discharge relation changed slightly October 1 and March 1 Two curves parallel to well-defined rating curve used, one October 1 to February 28 and the other March 1 to September 30. Operation of water-stage recorder satisfactory except as noted in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph by inspection, except as indicated in footnote to table of daily discharge. Records good.

*Discharge measurements of Snake River near Hagerman, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 1 | 4.38 | 10,500 | June 3 | 3.30 | 5,020 |
| Apr. 13 | 4.39 | 10,300 | July 24 | 3.35 | 4,920 |
| May 21 | 3.29 | 4,650 | | | |

*Daily discharge, in second-feet, of Snake River near Hagerman, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9,640 | | 11,200 | 10,300 | 9,950 | 10,600 | | 4,920 | 4,720 | 4,920 | 4,920 | 4,920 |
| 2 | 10,300 | | 12,200 | 9,640 | 9,640 | 10,600 | | 4,920 | 4,920 | 4,920 | 4,920 | 4,920 |
| 3 | 10,900 | | 11,600 | 9,340 | 9,640 | 10,600 | | 4,920 | 4,920 | 4,920 | 4,920 | 4,920 |
| 4 | 10,900 | 12,500 | 11,600 | 9,040 | 9,950 | 10,600 | | 4,920 | 4,720 | 4,920 | 4,920 | 4,920 |
| 5 | 10,600 | | 11,900 | 9,040 | 10,300 | 10,300 | | 4,920 | 4,720 | 4,920 | 4,920 | 4,920 |
| 6 | 10,600 | | 12,200 | 9,040 | 10,600 | 10,600 | | 4,920 | 4,720 | 4,920 | 4,920 | 4,920 |
| 7 | 10,300 | 12,900 | 11,900 | 9,340 | 10,600 | 10,900 | 9,000 | 4,920 | 4,720 | 4,920 | 4,920 | 4,920 |
| 8 | 10,300 | 12,600 | 11,900 | 9,340 | 10,600 | 9,950 | | 4,920 | 4,720 | 5,120 | 4,920 | 4,920 |
| 9 | 9,640 | 12,600 | 11,600 | 9,640 | 10,900 | 9,950 | | 5,120 | 4,720 | 5,120 | 4,920 | 4,920 |
| 10 | 10,600 | 12,600 | 11,200 | 9,640 | 10,900 | 9,640 | | 4,920 | 4,720 | 5,120 | 4,920 | 4,920 |
| 11 | 11,200 | 12,200 | 11,200 | | 10,900 | 9,040 | | 4,920 | 4,720 | 5,120 | 4,920 | 4,920 |
| 12 | 11,900 | 11,900 | 11,200 | | 11,900 | 9,640 | | 4,720 | 4,720 | 5,120 | 4,920 | 4,920 |
| 13 | 11,600 | 11,900 | 10,900 | 9,500 | 11,900 | 9,640 | 9,950 | 4,720 | 4,920 | 5,120 | 4,920 | 5,120 |
| 14 | 11,600 | 11,600 | 10,900 | | 11,700 | 9,950 | 9,640 | 4,720 | 4,920 | 4,920 | 4,920 | 5,120 |
| 15 | 11,900 | 11,600 | 11,200 | | 11,400 | 9,950 | 8,460 | 4,720 | 4,920 | 4,920 | 4,920 | 5,120 |
| 16 | 12,600 | 10,900 | 11,600 | 9,340 | 11,200 | 9,950 | 8,750 | 4,720 | 4,920 | 4,920 | 4,920 | 5,120 |
| 17 | 12,200 | 11,200 | 11,600 | 9,040 | 10,900 | 9,340 | 8,180 | 4,720 | 4,920 | 4,920 | 4,920 | 5,120 |
| 18 | 11,600 | 11,200 | 11,200 | 9,040 | 11,200 | 9,340 | 8,180 | 4,720 | 4,920 | 4,920 | 4,920 | 5,120 |
| 19 | 11,900 | 11,600 | 11,200 | 8,750 | 10,600 | 8,750 | 8,180 | 4,720 | 4,920 | 4,920 | 4,920 | 5,120 |
| 20 | 11,900 | 11,600 | 11,200 | 9,040 | 10,300 | 8,750 | 7,640 | 4,920 | 4,920 | 4,920 | 4,920 | 5,120 |
| 21 | 11,900 | 11,200 | 11,600 | 9,040 | 10,900 | | 7,640 | 4,720 | 4,920 | 4,920 | 4,920 | 5,120 |
| 22 | 11,600 | 11,200 | 11,600 | 9,340 | 10,900 | | 7,380 | 4,720 | 4,920 | 5,120 | 4,920 | 5,120 |
| 23 | 11,800 | 11,200 | 11,600 | 9,640 | 10,600 | | 5,750 | 4,720 | 4,920 | 5,120 | 4,920 | 5,120 |
| 24 | 11,900 | 11,600 | 11,200 | 10,300 | 10,600 | | 5,540 | 4,720 | 4,920 | 5,120 | 4,920 | 5,120 |
| 25 | 11,600 | 11,200 | 11,200 | 9,950 | 10,300 | | 5,330 | 4,720 | 4,920 | 5,120 | 4,920 | 5,120 |
| 26 | 11,200 | 11,200 | 11,600 | 9,950 | 10,900 | 9,200 | 5,330 | 4,720 | 4,920 | 5,120 | 4,920 | 5,330 |
| 27 | 11,200 | 11,200 | 11,200 | 9,950 | 10,900 | | 5,330 | 4,720 | 4,920 | 4,920 | 4,920 | 5,330 |
| 28 | 7,640 | 11,600 | 11,200 | 9,640 | 10,600 | | 5,120 | 4,720 | 4,920 | 4,920 | 4,920 | 5,330 |
| 29 | 9,040 | 11,600 | 11,200 | 9,640 | ------- | | 4,920 | 4,720 | 4,920 | 4,920 | 4,920 | 5,330 |
| 30 | 11,900 | 11,600 | 10,900 | 10,300 | ------- | | 4,920 | 4,720 | 4,920 | 4,920 | 4,920 | 5,330 |
| 31 | 11,900 | ------- | 10,900 | 10,300 | ------- | | ------- | 4,720 | ------- | 4,920 | 4,920 | ------- |

NOTE.—Owing to recorder not operating, discharge estimated Nov. 1–6, Jan. 11–15, Mar. 21–31, and Apr. 1–12 and interpolated Oct. 23, Feb. 14, 15, and Sept. 5–10. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Snake River near Hagerman, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 12,600 | 7,640 | 11,100 | 682,000 |
| November | ---------- | 10,900 | 11,800 | 702,000 |
| December | 12,200 | 10,900 | 11,400 | 701,000 |
| January | 10,300 | 8,750 | 9,520 | 585,000 |
| February | 11,900 | 9,640 | 10,700 | 594,000 |
| March | 10,900 | ---------- | 9,650 | 593,000 |
| April | ---------- | 4,920 | 7,810 | 465,000 |
| May | 5,120 | 4,720 | 4,800 | 295,000 |
| June | 4,920 | 4,720 | 4,850 | 289,000 |
| July | 5,120 | 4,920 | 4,990 | 307,000 |
| August | 4,920 | 4,920 | 4,920 | 303,000 |
| September | 5,330 | 4,920 | 5,080 | 302,000 |
| The year | ---------- | 4,720 | 8,040 | 5,820,000 |

### SNAKE RIVER AT KING HILL, IDAHO

LOCATION.—In sec. 7, T. 5 S., R. 11 E., 300 feet east of Oregon Short Line Railroad station at King Hill, Elmore County. Big Wood River enters from north 20 miles above station.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 13, 1909, to September 30, 1926.

GAGE.—Inclined staff on right bank; read by employee of United States Bureau of Reclamation and H. C. Crouch.

DISCHARGE MEASUREMENTS.—Made from cable 100 feet below gage.

CHANNEL AND CONTROL.—Bed at gage and measuring section composed largely of gravel. Control is lava reef partly overlain with gravel; shifts slightly.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 8.55 feet at 8 a. m. November 10 (discharge, 15,300 second-feet); minimum stage, 5.01 feet at 7.05 a. m. June 3 (discharge, 5,460 second-feet). A lower minimum may have occurred May 27 to June 2 when observer's readings were estimated because of deposit on lower end of gage.

1909–1926: Maximum stage recorded, 16.3 feet June 22, 1918 (discharge, 47,200 second-feet); minimum stage, 4.5 feet July 7–9 and August 15–16, 1910 (discharge, 4,760 second-feet).

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—No important diversions between this station and the one at Milner.

REGULATION.—Flow regulated by diversions at Milner. During certain parts of irrigation season, practically entire flow of river is diverted and flow at King Hill is derived largely from springs and seepage water from the Twin Falls tracts.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table except as indicated in footnote to daily-discharge table. Records good.

COOPERATION.—Gage-height record, October to December, furnished by United States Bureau of Reclamation.

*Discharge measurements of Snake River at King Hill, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 25 | 8.10 | 13,800 | Apr. 13 | 7.20 | 10,800 | May 21 | 5.39 | 6,210 |
| Mar. 1 | 7.82 | 12,600 | May 6 | 5.51 | 6,580 | June 3 | 5.09 | 5,610 |

*Daily discharge, in second-feet, of Snake River at King Hill, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12,100 | 14,000 | 13,700 | 13,700 | 12,100 | 12,700 | 12,100 | 6,280 | 5,800 | 6,280 | 6,490 | 6,490 |
| 2 | 12,100 | 14,000 | 14,600 | 13,300 | 12,100 | 12,700 | 11,800 | 6,280 | | 6,490 | 6,490 | 6,710 |
| 3 | 12,700 | 15,000 | 14,300 | 13,300 | 12,100 | 12,700 | 11,200 | 6,280 | 5,660 | 6,490 | 6,490 | 6,710 |
| 4 | 12,700 | 14,300 | 14,000 | 13,300 | 12,100 | 13,000 | 10,900 | 6,280 | 5,860 | 6,490 | 6,490 | 6,710 |
| 5 | 13,000 | 14,300 | 14,000 | 13,300 | 12,100 | 12,700 | 10,600 | 6,280 | 6,070 | 6,490 | 6,490 | 6,710 |
| 6 | 12,700 | 15,000 | 14,600 | 13,000 | 12,100 | 12,700 | 10,900 | 6,490 | 6,280 | 6,490 | 6,490 | 6,710 |
| 7 | 12,700 | 14,300 | 14,600 | 12,700 | 12,400 | 13,300 | 10,900 | 6,490 | 6,280 | 6,710 | 6,490 | 6,710 |
| 8 | 13,000 | 14,300 | 14,600 | 12,400 | 12,700 | 12,700 | 10,900 | 6,490 | 6,280 | 6,710 | 6,490 | 6,710 |
| 9 | 12,700 | 15,000 | 14,300 | 12,100 | 12,700 | 12,700 | 10,600 | 6,490 | 6,280 | 6,710 | 6,280 | 6,710 |
| 10 | 12,400 | 15,300 | 14,300 | 12,100 | 12,700 | 12,400 | 10,300 | 6,490 | 6,070 | 6,710 | 6,280 | 6,710 |
| 11 | 13,300 | 15,000 | 13,700 | 12,100 | 13,300 | 12,100 | 10,300 | 6,490 | 6,070 | 6,710 | 6,280 | 6,710 |
| 12 | 14,000 | 14,300 | 14,000 | 12,100 | 13,300 | 11,800 | 9,980 | 6,280 | 6,070 | 6,710 | 6,280 | 6,710 |
| 13 | 13,700 | 13,000 | 13,300 | 12,100 | 13,300 | 12,100 | 10,900 | 6,280 | 6,280 | 6,710 | 6,280 | 6,710 |
| 14 | 13,700 | 13,000 | 13,300 | 12,100 | 14,600 | 12,100 | 11,500 | 6,280 | 6,280 | 6,490 | 6,280 | 6,710 |
| 15 | 14,600 | 13,000 | 14,000 | 12,100 | 14,000 | 12,100 | 11,200 | 6,280 | 6,070 | 6,710 | 6,280 | 6,710 |
| 16 | 14,600 | 13,000 | 14,000 | 12,100 | 13,300 | 12,100 | 10,900 | 6,280 | 6,280 | 6,710 | 6,490 | 6,710 |
| 17 | 14,300 | 12,700 | 13,300 | 12,100 | 13,300 | 11,800 | 10,900 | 6,280 | 6,490 | 6,710 | 6,490 | 6,710 |
| 18 | 13,700 | 13,700 | 13,700 | 12,100 | 12,700 | 11,500 | 10,600 | 6,280 | 6,490 | 6,710 | 6,490 | 6,710 |
| 19 | 14,000 | 13,700 | 13,700 | 11,800 | 12,700 | 11,500 | 10,300 | 6,280 | 6,280 | 6,710 | 6,490 | 6,710 |
| 20 | 14,000 | 14,000 | 13,700 | 12,100 | 12,400 | 11,200 | 9,980 | 6,280 | 6,490 | 6,710 | 6,710 | 6,710 |
| 21 | 14,000 | 14,000 | 14,000 | 12,100 | 12,100 | 10,900 | 9,980 | 6,280 | 6,490 | 6,710 | 6,490 | 6,930 |
| 22 | 13,700 | 14,000 | 14,000 | 12,100 | 12,100 | 10,600 | 8,600 | 6,280 | 6,490 | 6,710 | 6,490 | 6,930 |
| 23 | 13,700 | 13,700 | 13,700 | 12,700 | 12,400 | 11,800 | 7,850 | 6,280 | 6,490 | 6,710 | 6,490 | 6,930 |
| 24 | 13,000 | 13,700 | 13,700 | 12,700 | 12,700 | 11,800 | 7,150 | 6,280 | 6,490 | 6,710 | 6,490 | 6,930 |
| 25 | 13,300 | 14,000 | 13,700 | 12,700 | 12,100 | 11,200 | 6,710 | 6,490 | 6,490 | 6,710 | 6,490 | 7,150 |
| 26 | 13,300 | 13,700 | 14,000 | 12,700 | 11,800 | 10,900 | 6,710 | 6,070 | 6,490 | 6,490 | 6,490 | 6,930 |
| 27 | 13,300 | 13,300 | 14,000 | 12,400 | 12,400 | 10,900 | 6,710 | | 6,280 | 6,490 | 6,710 | 7,150 |
| 28 | 12,100 | 13,300 | 14,000 | 12,400 | 12,700 | 11,500 | 6,490 | | 6,280 | 6,490 | 6,710 | 7,150 |
| 29 | 9,130 | 13,300 | 13,700 | 12,100 | ------- | 11,500 | 6,490 | 5,900 | 6,280 | 6,490 | 6,490 | 7,150 |
| 30 | 14,000 | 13,700 | 13,700 | 12,100 | ------- | 11,800 | 6,280 | | 6,280 | 6,490 | 6,490 | 7,150 |
| 31 | 14,300 | ------- | 13,700 | 12,100 | ------- | 12,100 | ------- | | ------- | 6,490 | 6,490 | ------- |

NOTE.—Gage-height record believed in error May 27 to June 2; discharge estimated.

*Monthly discharge of Snake River at King Hill, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 14,600 | 9,130 | 13,200 | 812,000 |
| November | 15,300 | 12,700 | 13,900 | 827,000 |
| December | 14,600 | 13,300 | 13,900 | 855,000 |
| January | 13,700 | 11,800 | 12,500 | 769,000 |
| February | 14,600 | 11,800 | 12,700 | 705,000 |
| March | 13,300 | 10,600 | 12,000 | 738,000 |
| April | 12,100 | 6,280 | 9,660 | 575,000 |
| May | 6,490 | ---------- | 6,260 | 385,000 |
| June | 6,490 | ---------- | 6,240 | 371,000 |
| July | 6,710 | 6,280 | 6,610 | 406,000 |
| August | 6,710 | 6,280 | 6,460 | 397,000 |
| September | 7,150 | 6,490 | 6,810 | 405,000 |
| The year | 15,300 | ---------- | 10,000 | 7,240,000 |

### SNAKE RIVER NEAR MURPHY, IDAHO

LOCATION.—In NW. ¼ sec. 18, T. 2 S., R. 1 E., Ada County, three-quarters of a mile below Swan Falls power plant, 9 miles east of Murphy, Owyhee County, and 38 miles below mouth of Bruneau River.

DRAINAGE AREA.—41,900 square miles (measured on United States Land Office maps).

RECORDS AVAILABLE.—August 29 to October 31, 1912; August 21, 1913, to September 30, 1926

GAGE.—Au water-stage recorder on right bank a quarter of a mile below house on Glass ranch; inspected by J. G. Glass.

DISCHARGE MEASUREMENTS.—Made from boat at ferry cable 1¼ miles above gage.

CHANNEL AND CONTROL.—Bed composed of lava rock overlain with deposits of sand, silt, and gravel, where not scoured out by current. Control permanent. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 5.46 feet at 6 a. m. November 9 (discharge, 16,500 second-feet); minimum mean daily discharge, 6,380 second-feet June 20, July 2, and August 15.

1912–1926: Maximum stage recorded, 13.95 feet at 10 p. m. June 22, 1918 (discharge, 47,300 second-feet); minimum stage, about −2.25 feet at 6 a. m. August 6, 1917 (discharge, about 5,000 second-feet). Stage probably fell equally low at times of minimum load at power plant during low-water periods 1919 to 1926.

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—A number of small pumping plants divert water for irrigation between this and the station at King Hill.

REGULATION.—Large diurnal fluctuations in stage are caused by operation of gates at dam and by variation in load at power plant, but because of small relative amount of storage obtained, the changes are of short duration.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Operation of water-stage recorder satisfactory except July 11–15. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph except as indicated in footnote to table of daily discharge. Records good.

The following discharge measurements were made:

October 9, 1925: Gage height, 4.38 feet; discharge, 13,900 second-feet.

July 16, 1926: Gage height, 0.28 foot; discharge, 7,430 second-feet.

*Daily discharge, in second-feet, of Snake River near Murphy, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10,400 | 14,300 | 14,300 | 13,300 | 12,600 | 13,300 | 13,300 | 7,090 | 6,910 | 6,830 | 6,750 | 6,750 |
| 2 | 11,600 | 14,500 | 14,000 | 12,900 | 12,600 | 13,100 | 13,100 | 6,910 | 6,830 | 6,380 | 6,670 | 6,750 |
| 3 | 12,400 | 14,500 | 14,800 | 12,000 | 12,200 | 13,300 | 12,000 | 7,370 | 6,830 | 6,590 | 6,670 | 6,830 |
| 4 | 12,900 | 15,300 | 14,300 | 11,600 | 12,200 | 13,300 | 10,800 | 7,180 | 7,180 | 6,670 | 6,670 | 6,910 |
| 5 | 13,300 | 14,300 | 14,000 | 11,800 | 12,200 | 13,300 | 11,000 | 7,270 | 6,830 | 7,000 | 6,750 | 6,590 |
| 6 | 13,800 | 12,400 | 15,000 | 11,600 | 12,900 | 13,300 | 11,000 | 7,180 | 6,670 | 6,830 | 6,670 | 6,910 |
| 7 | 13,300 | 12,400 | 14,500 | 11,800 | 13,300 | 12,600 | 11,200 | 7,270 | 7,090 | 7,000 | 6,670 | 6,910 |
| 8 | 12,400 | 14,800 | 14,500 | 11,600 | 13,300 | 13,300 | 12,000 | 7,570 | 7,090 | 6,910 | 6,670 | 6,830 |
| 9 | 13,300 | 15,500 | 14,500 | 12,000 | 13,300 | 13,100 | 11,800 | 6,830 | 6,910 | 7,270 | 6,590 | 6,750 |
| 10 | 12,200 | 15,500 | 14,300 | 12,200 | 13,600 | 12,400 | 11,400 | 7,180 | 6,670 | 7,180 | 6,750 | 6,910 |
| 11 | 12,600 | 15,500 | 14,000 | 12,600 | 13,600 | 12,600 | 10,600 | 7,180 | 6,590 | | 6,750 | 6,830 |
| 12 | 13,800 | 15,000 | 14,000 | 12,900 | 13,800 | 11,600 | 11,000 | 7,000 | 6,750 | | 6,670 | 6,520 |
| 13 | 14,300 | 14,500 | 13,800 | 12,000 | 13,800 | 12,400 | 11,800 | 7,000 | 6,590 | 7,100 | 6,750 | 6,830 |
| 14 | 14,300 | 15,000 | 14,000 | 12,900 | 14,800 | 12,000 | 11,800 | 6,750 | 6,590 | | 6,750 | 6,830 |
| 15 | 14,300 | 14,000 | 13,300 | 12,400 | 14,500 | 12,400 | 12,200 | 6,910 | 6,910 | | 6,380 | 6,830 |
| 16 | 14,300 | 13,800 | 14,300 | 12,200 | 14,000 | 12,900 | 11,400 | 6,670 | 6,670 | 7,090 | 6,830 | 6,750 |
| 17 | 14,800 | 13,600 | 14,000 | 12,000 | 13,800 | 12,900 | 11,200 | 7,000 | 6,590 | 6,670 | 6,830 | 6,750 |
| 18 | 15,000 | 13,800 | 14,000 | 12,200 | 13,600 | 12,200 | 10,800 | 6,830 | 6,670 | 6,590 | 6,750 | 6,750 |
| 19 | 14,300 | 14,300 | 13,600 | 12,400 | 13,300 | 12,400 | 11,000 | 6,830 | 6,830 | 6,830 | 6,520 | 6,910 |
| 20 | 14,300 | 14,500 | 13,600 | 12,000 | 13,100 | 11,600 | 11,000 | 6,830 | 6,380 | 6,830 | 6,750 | 6,910 |
| 21 | 14,300 | 14,300 | 13,100 | 12,200 | 12,900 | 11,200 | 10,400 | 7,000 | 6,750 | 6,590 | 7,000 | 7,000 |
| 22 | 14,500 | 14,000 | 13,800 | 12,200 | 12,400 | 11,600 | 10,300 | 7,180 | 6,590 | 6,670 | 6,830 | 6,830 |
| 23 | 14,000 | 13,800 | 14,000 | 12,400 | 13,300 | 11,400 | 10,400 | 6,670 | 6,670 | 6,670 | 6,830 | 6,910 |
| 24 | 14,000 | 14,000 | 14,000 | 12,400 | 12,900 | 12,900 | 8,210 | 6,910 | 6,670 | 6,670 | 6,750 | 7,000 |
| 25 | 13,800 | 14,000 | 13,600 | 12,600 | 12,900 | 12,400 | 7,770 | 7,180 | 6,670 | 6,590 | 6,830 | 7,090 |
| 26 | 14,300 | 14,000 | 13,800 | 12,400 | 12,900 | 12,200 | 7,570 | 6,830 | 6,670 | 6,750 | 6,750 | 7,000 |
| 27 | 13,800 | 13,800 | 14,000 | 12,600 | 12,900 | 12,400 | 7,570 | 7,000 | 6,520 | 6,830 | 6,750 | 7,370 |
| 28 | 14,300 | 13,800 | 13,300 | 12,000 | 13,300 | 11,400 | 7,570 | 6,750 | 6,750 | 6,670 | 6,750 | 7,090 |
| 29 | 11,600 | 14,500 | 13,800 | 12,000 | | 11,800 | 7,470 | 6,830 | 6,670 | 6,750 | 6,670 | 7,180 |
| 30 | 9,930 | 13,800 | 13,600 | 11,800 | | 12,900 | 7,470 | 6,670 | 6,750 | 6,670 | 6,910 | 7,270 |
| 31 | 14,800 | | 13,600 | 12,400 | | 12,400 | | 6,910 | | 6,670 | 6,750 | |

NOTE.—Water-stage recorder did not operate satisfactorily July 11-15, and discharge was estimated by comparison with flow at King Hill and Weiser. Braced figure shows mean discharge for period indicated.

*Monthly discharge of Snake River near Murhpy, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 15,000 | 9,930 | 13,400 | 824,000 |
| November | 15,500 | 12,400 | 14,200 | 845,000 |
| December | 15,000 | 13,100 | 14,000 | 861,000 |
| January | 13,300 | 13,600 | 12,200 | 750,000 |
| February | 14,800 | 12,200 | 13,200 | 733,000 |
| March | 13,300 | 11,200 | 12,500 | 769,000 |
| April | 13,300 | 7,470 | 10,500 | 625,000 |
| May | 7,570 | 6,670 | 6,990 | 430,000 |
| June | 7,180 | 6,380 | 6,740 | 401,000 |
| July | | 6,380 | 6,830 | 420,000 |
| August | 7,000 | 6,380 | 6,730 | 414,000 |
| September | 7,370 | 6,520 | 6,890 | 410,000 |
| The year | 15,500 | 6,380 | 10,300 | 7,480,000 |

**SNAKE RIVER AT WEISER, IDAHO**

LOCATION.—In sec. 31, T. 11 N., R. 5 W., a third of a mile above wagon bridge at Weiser, Washington County. Between this station and station near Murphy, Sucker Creek and Owyhee and Malheur Rivers enter Snake River from left, and Boise, Payette, and Weiser Rivers enter from right.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—October 8, 1910, to September 30, 1926. Fragmentary gage-height record obtained by United States Weather Bureau since 1895.

GAGE.—Inclined staff on right bank; read by J. W. Lapish. Elevation of zero of gage is at 2,087.22 feet above sea level.

DISCHARGE MEASUREMENTS.—Made from cable 200 yards below bridge.

CHANNEL AND CONTROL.—Bed composed of rocks and coarse gravel. One channel at all stages. Control fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.30 feet February 7 (discharge, 34,700 second-feet); minimum stage, 1.61 feet August 17 (discharge, 5,980 second-feet).

1910–1926: Maximum stage recorded, 13.60 feet May 23, 1921 (discharge, 83,100 second-feet); minimum stage, 1.35 feet August 5, 1924 (discharge, 5,100 second-feet). A stage of 15.7 feet was observed March 3, 1910, on old Weather Bureau gage (discharge, about 100,000 second-feet).

ICE.—Stage-discharge relation occasionally affected by ice during severe winters.

DIVERSIONS.—Some water is diverted by pumping between Weiser and station near Murphy.

REGULATION.—Diurnal fluctuations during periods of low water due to operations at Swan Falls power plant above station.

ACCURACY.—Stage-discharge relation changed February 6–10 and March 17–20. Three well-defined rating curves used October 1 to February 5, February 11 to March 16, and March 21 to September 30, respectively. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table except February 6–10 and March 17–20, when shifting-control method was used. Records good.

COOPERATION.—Gage-height record furnished by United States Weather Bureau.

*Discharge measurements of Snake River at Weiser, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 6 | 4.89 | 19,500 | May 3 | 3.88 | 15,200 | June 16 | 1.96 | 7,280 |
| May 1 | 3.96 | 16,000 | May 21 | 3.44 | 13,500 | July 20 | 1.78 | 6,520 |

*Daily discharge, in second-feet, of Snake River at Weiser, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15,500 | 15,500 | 18,500 | 16,000 | 17,000 | 19,000 | 18,000 | 16,000 | 9,860 | 6,650 | 6,480 | 7,360 |
| 2 | 13,300 | 18,000 | 18,000 | 16,000 | 17,000 | 20,100 | 18,500 | 15,500 | 9,660 | 6,650 | 6,480 | 7,360 |
| 3 | 13,700 | 18,500 | 19,000 | 15,000 | 17,000 | 20,100 | 19,000 | 15,500 | 9,260 | 6,820 | 6,310 | 7,180 |
| 4 | 15,000 | 18,000 | 20,700 | 15,000 | 16,500 | 19,600 | 18,500 | 15,000 | 8,870 | 6,820 | 6,480 | 7,360 |
| 5 | 17,400 | 18,500 | 19,600 | 15,000 | 19,600 | 19,600 | 18,000 | 16,400 | 8,480 | 6,650 | 6,310 | 7,360 |
| 6 | 17,400 | 18,000 | 19,000 | 14,600 | 24,800 | 19,600 | 17,400 | 19,500 | 8,480 | 6,650 | 6,310 | 7,540 |
| 7 | 19,000 | 16,000 | 19,000 | 14,600 | 34,700 | 20,100 | 17,400 | 18,500 | 8,290 | 6,650 | 6,480 | 7,360 |
| 8 | 18,000 | 15,500 | 19,000 | 14,600 | 30,600 | 19,600 | 18,000 | 17,400 | 8,290 | 6,820 | 6,480 | 7,180 |
| 9 | 17,400 | 17,000 | 19,000 | 14,600 | 28,000 | 19,600 | 19,000 | 16,900 | 8,290 | 7,000 | 6,480 | 7,360 |
| 10 | 17,000 | 19,000 | 18,000 | 14,600 | 26,100 | 20,100 | 19,500 | 16,000 | 8,100 | 7,180 | 6,480 | 7,360 |
| 11 | 16,000 | 19,600 | 18,000 | 14,600 | 21,800 | 19,000 | 20,000 | 15,000 | 7,920 | 7,180 | 6,650 | 7,360 |
| 12 | 15,500 | 19,600 | 18,000 | 14,600 | 22,400 | 18,000 | 20,000 | 14,000 | 7,540 | 7,360 | 6,650 | 7,180 |
| 13 | 17,000 | 19,600 | 17,400 | 15,000 | 21,800 | 17,000 | 20,000 | 13,100 | 7,540 | 7,180 | 6,310 | 7,180 |
| 14 | 18,000 | 18,500 | 18,000 | 15,000 | 21,200 | 17,400 | 20,000 | 12,600 | 7,540 | 7,180 | 6,650 | 7,180 |
| 15 | 18,000 | 18,500 | 18,000 | 14,600 | 20,700 | 19,000 | 20,000 | 11,800 | 7,360 | 7,360 | 6,310 | 7,360 |
| 16 | 18,000 | 18,500 | 18,000 | 14,600 | 20,100 | 21,200 | 21,100 | 11,800 | 7,180 | 6,820 | 6,140 | 7,360 |
| 17 | 18,500 | 17,000 | 18,000 | 14,600 | 19,600 | 23,200 | 21,100 | 11,800 | 7,360 | 6,820 | 5,980 | 7,540 |
| 18 | 19,000 | 17,400 | 17,400 | 15,000 | 19,000 | 23,300 | 21,100 | 12,200 | 7,000 | 6,650 | 6,820 | 7,360 |
| 19 | 19,000 | 17,400 | 17,400 | 15,000 | 18,000 | 22,900 | 21,100 | 12,200 | 7,180 | 6,480 | 6,820 | 7,540 |
| 20 | 18,500 | 17,000 | 17,400 | 15,000 | 18,000 | 21,400 | 22,200 | 11,800 | 7,360 | 6,480 | 6,650 | 7,730 |
| 21 | 18,500 | 18,500 | 17,400 | 14,600 | 18,000 | 20,600 | 21,100 | 13,100 | 7,360 | 6,820 | 6,650 | 7,920 |
| 22 | 18,500 | 18,500 | 17,400 | 14,600 | 18,000 | 19,500 | 20,000 | 14,000 | 7,360 | 6,310 | 6,820 | 7,730 |
| 23 | 18,500 | 18,500 | 17,400 | 14,600 | 18,000 | 19,500 | 19,000 | 13,600 | 7,540 | 6,480 | 7,180 | 7,920 |
| 24 | 18,000 | 18,500 | 17,400 | 14,600 | 18,000 | 19,500 | 18,500 | 13,100 | 7,360 | 6,650 | 7,000 | 7,730 |
| 25 | 17,400 | 18,000 | 17,000 | 14,600 | 18,000 | 20,600 | 16,000 | 12,600 | 7,360 | 6,650 | 7,000 | 7,730 |
| 26 | 17,000 | 17,400 | 17,400 | 14,600 | 18,000 | 20,000 | 15,400 | 13,100 | 7,000 | 6,650 | 6,820 | 7,920 |
| 27 | 18,000 | 22,400 | 17,400 | 15,000 | 18,000 | 19,000 | 14,000 | 11,300 | 7,000 | 6,310 | 6,650 | 8,100 |
| 28 | 17,400 | 20,100 | 17,000 | 15,000 | 18,000 | 19,000 | 14,500 | 10,500 | 7,000 | 6,310 | 6,820 | 8,290 |
| 29 | 18,000 | 19,600 | 17,000 | 16,000 | ------- | 18,500 | 13,100 | 10,100 | 7,000 | 6,480 | 7,000 | 8,480 |
| 30 | 16,500 | 17,400 | 16,500 | 16,500 | ------- | 17,400 | 15,000 | 10,100 | 6,650 | 6,480 | 7,000 | 8,290 |
| 31 | 13,300 | ------- | 16,500 | 17,000 | ------- | 18,000 | ------- | 9,860 | ------- | 6,480 | 7,000 | ------- |

*Monthly discharge of Snake River at Weiser, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 19,000 | 13,300 | 17,200 | 1,060,000 |
| November | 22,400 | 15,500 | 18,200 | 1,080,000 |
| December | 20,700 | 16,500 | 17,900 | 1,100,000 |
| January | 17,000 | 14,600 | 15,000 | 922,000 |
| February | 34,700 | 16,500 | 20,600 | 1,140,000 |
| March | 23,300 | 17,000 | 19,700 | 1,210,000 |
| April | 22,200 | 13,100 | 18,500 | 1,100,000 |
| May | 19,500 | 9,860 | 13,700 | 842,000 |
| June | 9,860 | 6,650 | 7,770 | 462,000 |
| July | 7,360 | 6,310 | 6,740 | 414,000 |
| August | 7,180 | 5,980 | 6,620 | 407,000 |
| September | 8,480 | 7,180 | 7,580 | 451,000 |
| The year | 34,700 | 5,980 | 14,100 | 10,200,000 |

**SNAKE RIVER AT OXBOW, OREG.**

LOCATION.—In NW. ¼ sec. 16, T. 7 S., R. 48 E., at Oxbow station on Homestead branch of Oregon Short Line Railroad, Baker County, five-eighths mile above intake of diversion tunnel for the Oxbow power plant and 1¼ miles southeast of Copperfield post office.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 22, 1923, to September 30, 1926.

GAGE.—Au water-stage recorder on left bank; inspected by Wm. T. Kingsley.

DISCHARGE MEASUREMENTS.—Made from cable 20 feet below gage.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders. One channel at all stages. Control fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 13.66 feet at 4 to 6 a. m. February 8 (discharge, 33,100 second-feet); minimum discharge, 6,000 second-feet August 2 and 10 (gage height, 6.8 feet).

1923–1926: Maximum stage recorded, 19.14 feet at 6 a. m. February 6, 1925 (discharge, 70,600 second-feet); minimum stage, 6.30 feet at 5 to 6 a. m. August 6, 1924 (discharge, 4,890 second-feet).

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—A number of small pumping plants divert water for irrigation between this and the station at Weiser.

REGULATION.—Diurnal fluctuations during periods of low water due to operations of Swan Falls power plant above station.

ACCURACY.—Stage-discharge relation assumed to have changed slightly February 8. Two rating curves used; one from October 1 to February 8 is well defined between 6,500 and 55,000 second-feet, and the other from February 9 to September 30 is well defined between 5,000 and 55,000 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph, except as noted in footnote to table of daily discharge. Records good.

*Discharge measurements of Snake River at Oxbow, Oreg., during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 5 | 11.10 | 19,800 | May 22 | 9.47 | 13,900 | July 23 | 6.90 | 6,160 |
| Apr. 12 | 11.18 | 20,800 | June 17 | 7.41 | 7,310 | | | |
| May 2 | 10.22 | 16,600 | June 17 | 7.42 | 7,600 | | | |

*Daily discharge, in second-feet, of Snake River at Oxbow, Oreg., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14,300 | 13,900 | 18,200 | 16,600 | 17,400 | 20,000 | 18,800 | 16,800 | 10,200 | 6,440 | 6,220 | 6,900 |
| 2 | 14,300 | 17,800 | 17,800 | 16,200 | 17,400 | 20,000 | 18,800 | 16,800 | 10,200 | 6,440 | 6,000 | 6,900 |
| 3 | 13,100 | 17,800 | 18,600 | 15,800 | 17,000 | 20,400 | 19,600 | 16,400 | 10,200 | 6,440 | 6,220 | 6,900 |
| 4 | 14,300 | 17,800 | 19,500 | 15,800 | 17,000 | 20,800 | 18,800 | 16,000 | 9,600 | 6,440 | 6,220 | 6,900 |
| 5 | 15,000 | 17,800 | 19,500 | 14,600 | 19,900 | 20,800 | 17,600 | 16,800 | 9,300 | 6,220 | 6,220 | 6,900 |
| 6 | 15,800 | 18,600 | 18,600 | 14,600 | 25,000 | 20,800 | 17,200 | 19,200 | 9,010 | 6,670 | 6,220 | 7,140 |
| 7 | 17,800 | 17,800 | 18,600 | 15,000 | 27,300 | 20,400 | 17,200 | 20,000 | 9,010 | 6,670 | 6,220 | 6,900 |
| 8 | 18,200 | 16,600 | 19,000 | 15,000 | 31,400 | 20,400 | 18,000 | 18,800 | 8,440 | 6,900 | 6,220 | 7,140 |
| 9 | 17,400 | 16,200 | 18,600 | 15,000 | 29,300 | 20,000 | 19,200 | 18,000 | 8,440 | 6,900 | 6,220 | 7,140 |
| 10 | 16,600 | 18,200 | 18,600 | 15,000 | 26,300 | 20,800 | 20,000 | 17,200 | 8,440 | 6,900 | 6,000 | 7,140 |
| 11 | 17,000 | 19,000 | 18,200 | 15,400 | 24,400 | 20,400 | 20,400 | 15,600 | 8,440 | 7,390 | 6,220 | 6,900 |
| 12 | 15,800 | 19,000 | 18,200 | 15,400 | 24,000 | 20,000 | 20,400 | 14,800 | 7,900 | 7,390 | 6,220 | 6,900 |
| 13 | 16,600 | 19,000 | 17,800 | 15,400 | 22,600 | 20,000 | 20,400 | 14,400 | 7,390 | 7,140 | 6,440 | 6,900 |
| 14 | 17,400 | 18,600 | 17,800 | 15,800 | 21,700 | 19,600 | 20,800 | 13,300 | 7,640 | 7,140 | 6,220 | 7,140 |
| 15 | 17,800 | 18,200 | 17,800 | 14,600 | 21,700 | 20,800 | 20,800 | 12,900 | 7,390 | 6,900 | 6,440 | 7,140 |
| 16 | 17,800 | 18,600 | 17,800 | 15,400 | 20,800 | 21,300 | 21,300 | 12,200 | 7,390 | 6,900 | 6,220 | 7,140 |
| 17 | 17,800 | 17,800 | 17,000 | 15,400 | 20,000 | 23,500 | 22,200 | 12,600 | 7,390 | 6,670 | 6,220 | 7,260 |
| 18 | 18,200 | 17,400 | 17,800 | 15,000 | 20,000 | 24,400 | 21,700 | 12,200 | 7,390 | 6,670 | 6,220 | 7,390 |
| 19 | 18,200 | 17,400 | 17,400 | 15,400 | 19,200 | 24,400 | 22,200 | 12,900 | 7,390 | 6,440 | 6,670 | 7,390 |
| 20 | 18,600 | 17,400 | 17,800 | 15,400 | 18,800 | 22,600 | 22,600 | 12,900 | 7,390 | 6,220 | 6,440 | 7,390 |
| 21 | 17,800 | 17,400 | 17,400 | 15,400 | 19,200 | 21,700 | 22,600 | 13,300 | 7,390 | 6,220 | 6,440 | 7,390 |
| 22 | 17,800 | 17,800 | 17,400 | 15,000 | 18,800 | 20,800 | 21,700 | 14,000 | 7,390 | 6,440 | 6,440 | 7,640 |
| 23 | 17,800 | 17,400 | 17,400 | 15,000 | 18,800 | 20,400 | 20,000 | 14,000 | 7,390 | 6,440 | 6,670 | 7,640 |
| 24 | 17,800 | 17,000 | 18,200 | 15,400 | 18,400 | 20,800 | 19,600 | 13,700 | 7,640 | 6,440 | 6,900 | 7,390 |
| 25 | 17,400 | 17,000 | 18,200 | 15,400 | 19,200 | 20,400 | 18,800 | 12,900 | 7,390 | 6,440 | 6,900 | 7,640 |
| 26 | 17,400 | 17,000 | 17,800 | 15,400 | 19,200 | 21,300 | 18,400 | 13,300 | 7,390 | 6,220 | 6,670 | 7,640 |
| 27 | 17,400 | 18,600 | 17,400 | 15,400 | 19,200 | 20,400 | 15,600 | 12,900 | 6,900 | 6,440 | 6,440 | 7,900 |
| 28 | 17,800 | 19,900 | 17,800 | 15,400 | 19,200 | 19,600 | 15,600 | 11,500 | 6,900 | 6,220 | 6,440 | 7,900 |
| 29 | 17,400 | 17,400 | 17,800 | 15,800 | ------- | 19,200 | 16,000 | 11,200 | 6,670 | 6,440 | 6,440 | 8,170 |
| 30 | 17,400 | 17,400 | 17,400 | 16,600 | ------- | 18,000 | 16,400 | 10,500 | 6,670 | 6,440 | 6,440 | 8,170 |
| 31 | 15,000 | ------- | 16,600 | 19,000 | ------- | 18,400 | ------- | 10,500 | ------- | 6,440 | 6,670 | ------- |

NOTE.—Discharge interpolated Sept. 17.

*Monthly discharge of Snake River at Oxbow, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 18,600 | 13,100 | 16,900 | 1,040,000 |
| November | 19,900 | 13,900 | 17,700 | 1,050,000 |
| December | 19,500 | 16,600 | 18,000 | 1,110,000 |
| January | 19,000 | 14,600 | 15,500 | 953,000 |
| February | 31,400 | 17,000 | 21,200 | 1,180,000 |
| March | 24,400 | 18,000 | 20,700 | 1,270,000 |
| April | 22,600 | 15,600 | 19,400 | 1,150,000 |
| May | 20,000 | 10,500 | 14,400 | 885,000 |
| June | 10,200 | 6,670 | 8,010 | 477,000 |
| July | 7,390 | 6,220 | 6,610 | 406,000 |
| August | 6,900 | 6,000 | 6,370 | 392,000 |
| September | 8,170 | 6,900 | 7,300 | 434,000 |
| The year | 31,400 | 6,000 | 14,300 | 10,300,000 |

## TRIBUTARY BASINS

### HENRYS FORK NEAR LAKE, IDAHO

LOCATION.—In SW. ¼ sec. 26, T. 15 N., R. 43 E., one-fourth mile below Henrys Lake Reservoir dam and 4 miles south of Lake post office, Fremont County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—September 21, 1922, to September 30, 1926. May 17, 1920, to September 30, 1922, at site 3 miles downstream, just below mouth of Dry Creek.

GAGE.—Stevens 8-day water-stage recorder on left bank; inspected by J. M. McGinn.

DISCHARGE MEASUREMENTS.—Made from footbridge just above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of small cobbles and gravel; fairly permanent. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 5.40 feet at 7 p. m. June 13 (discharge, 907 second-feet); minimum stage, 0.74 foot at 10 a. m. May 10 (discharge, 19 second-feet).

1920–1926: Maximum stage recorded, that of June 13, 1926; minimum discharge, 1 second-foot several days in July, 1923, and October, 1924, when reservoir gates were closed for storage.

ICE.—Stage-discharge relation seriously affected by ice; records discontinued during winter.

DIVERSIONS.—None between Henrys Lake Reservoir dam and gaging station and practically none above dam.

REGULATION.—Flow controlled by operation of gates in Henrys Lake Reservoir dam.

ACCURACY.—Stage-discharge relation not permanent. Rating curve fairly well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method. Records fair.

COOPERATION.—Gage-height record furnished by North Fork Reservoir Co.

*Discharge measurements of Henrys Fork near Lake, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 25 | 0.83 | 24.1 | July 3 | 2.95 | 305 | July 31 | 3.79 | 475 |
| June 21 | 1.20 | 60 | July 29 | 3.82 | 491 | Sept. 13 | .95 | 26.9 |
| July 3 | 4.16 | 560 | | | | | | |

*Daily discharge, in second-feet, of Henrys Fork near Lake, Idaho, for the year ending September 30, 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 107 | 586 | 477 | 215 | 16 | 20 | 79 | 641 | 154 | 34 |
| 2 | ------ | 98 | 576 | 475 | 215 | 17 | 21 | 76 | 667 | 105 | 28 |
| 3 | ------ | 91 | 540 | 475 | 215 | 18 | 21 | 63 | 570 | 92 | 29 |
| 4 | ------ | 77 | 553 | 477 | 176 | 19 | 22 | 60 | 615 | 94 | 32 |
| 5 | ------ | 72 | 558 | 409 | 170 | 20 | 23 | 59 | 675 | 93 | 31 |
| 6 | ------ | 70 | 566 | 359 | 184 | 21 | 23 | 59 | 664 | 92 | 30 |
| 7 | ------ | 69 | 568 | 353 | 186 | 22 | 22 | 60 | 654 | 93 | 30 |
| 8 | ------ | 66 | 501 | 332 | 77 | 23 | 23 | 60 | 651 | 92 | 31 |
| 9 | ------ | 64 | 409 | 319 | 28 | 24 | 23 | 58 | 651 | 127 | 30 |
| 10 | 19 | 57 | 263 | 272 | 28 | 25 | 40 | 121 | 651 | 143 | 23 |
| 11 | 20 | 54 | 145 | 248 | 28 | 26 | 92 | 177 | 543 | 144 | 23 |
| 12 | 19 | 53 | 177 | 184 | 28 | 27 | 119 | 223 | 509 | 144 | 23 |
| 13 | 20 | 401 | 401 | 159 | 28 | 28 | 119 | 341 | 553 | 144 | 27 |
| 14 | 20 | 80 | 521 | 154 | 28 | 29 | 118 | 482 | 501 | 143 | 30 |
| 15 | 20 | 155 | 560 | 152 | 31 | 30 | 118 | 578 | 482 | 143 | 32 |
| | | | | | | 31 | 114 | ------ | 477 | 196 | ------ |

NOTE.—No record obtained Oct. 1 to May 9.

*Monthly discharge of Henrys Fork near Lake, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May 10–31 | 119 | 19 | 47.1 | 2,060 |
| June | 578 | 53 | 134 | 7,970 |
| July | 675 | 177 | 530 | 32,600 |
| August | 477 | 92 | 221 | 13,600 |
| September | 215 | 23 | 69.0 | 4,110 |
| The period | | | | 60,300 |

**HENRYS FORK AT WARM RIVER, IDAHO**

LOCATION.—In sec. 12, T. 9 N., R. 43 E., 300 yards above mouth of Warm River and half a mile from Warm River railroad station, Fremont County; above all main tributaries.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—September 3, 1910, to March 22, 1915; April 3, 1918, to September 30, 1926.

GAGE.—Au water-stage recorder referred to vertical staff on left bank, inspected by Howard and Boyle.

DISCHARGE MEASUREMENTS.—Made from cable at gage.

CHANNEL AND CONTROL.—Bed composed of cobbles, gravel, and sand. Stage-discharge relation at times affected by moss growth; otherwise conditions are fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.05 feet at 4 p. m. April 21 (discharge, 2,180 second-feet); minimum stage, 4 feet on December 30–31 (discharge, 689 second-feet).

1910–1915, 1918–1926: Maximum discharge, 3,390 second-feet May 16, 1920; minimum stage, 3.50 feet at 1 p. m. December 17, 19, and 20, 1924 (discharge, 482 second-feet); even lower discharge may have occurred during winter.

ICE.—Stage-discharge relation somewhat affected by ice for short periods. Slush ice reported present in channel at various times.

DIVERSIONS.—Practically none above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation subject to slight changes. Two rating curves used during year, one from October 1 to June 28 and the other from July 2 to September 30, are fairly well defined. Staff gage read to hundredths once daily October 18 to April 24. Operation of water-stage recorder satisfactory for rest of year. Daily discharge ascertained by applying mean daily gage height to rating table except as noted in footnote to table of daily discharge. Shifting-control method used June 29 to July 1. Records fair.

*Discharge measurements of Henrys Fork at Warm River, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 18 | 4.35 | 884 | May 13 | 4.87 | 1,260 | Aug. 2 | 4.87 | 1,290 |
| Nov. 28 | 4.28 | 831 | June 7 | 4.52 | 992 | Aug. 22 | 4.40 | 948 |
| Feb. 6 | 4.29 | 878 | June 27 | 4.55 | 1,030 | Sept. 12 | 4.27 | 868 |
| Apr. 24 | 5.45 | 1,660 | July 9 | 5.02 | 1,410 | | | |

*Daily discharge, in second-feet, of Henrys Fork at Warm River, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 957 | 899 | 899 | 747 | 815 | 806 | 837 | 1,620 | 1,100 | 1,280 | 1,310 | 996 |
| 2 | 950 | 931 | 931 | 747 | 837 | 806 | 880 | 1,610 | 1,080 | 1,360 | 1,290 | 1,040 |
| 3 | 938 | 996 | 899 | 855 | 837 | 806 | 868 | 1,570 | 1,080 | 1,370 | 1,280 | 1,040 |
| 4 | 924 | 931 | 868 | 886 | 837 | 806 | 868 | 1,530 | 1,050 | 1,370 | 1,280 | 1,040 |
| 5 | 924 | 886 | 899 | 868 | 837 | 824 | 899 | 1,580 | 1,050 | 1,360 | 1,280 | 1,030 |
| 6 | 976 | 899 | 899 | 837 | 861 | 794 | 944 | 1,640 | 1,020 | 1,370 | 1,270 | 1,010 |
| 7 | 996 | 899 | 899 | 806 | 849 | 824 | 931 | 1,620 | 1,010 | 1,380 | 1,220 | 1,040 |
| 8 | 970 | 886 | 899 | 806 | 824 | 812 | 931 | 1,530 | 996 | 1,400 | 1,180 | 1,040 |
| 9 | 944 | 868 | 880 | 806 | 806 | 818 | 964 | 1,450 | 996 | 1,400 | 1,150 | 990 |
| 10 | 931 | 868 | 868 | | 806 | 824 | 1,030 | 1,410 | 990 | 1,350 | 1,130 | 905 |
| 11 | 938 | 944 | 880 | | 837 | 837 | 1,100 | 1,340 | 976 | 1,280 | 1,150 | 880 |
| 12 | 950 | 931 | 918 | | 837 | 837 | 1,150 | 1,280 | 964 | 1,110 | 1,140 | 880 |
| 13 | 957 | 899 | 874 | | 824 | 837 | 1,240 | 1,250 | 950 | 1,080 | 1,080 | 874 |
| 14 | 950 | 880 | 794 | | 718 | 837 | 1,350 | 1,230 | 1,030 | 1,120 | 1,030 | 868 |
| 15 | 944 | 899 | 899 | | 794 | 837 | 1,520 | 1,200 | 1,160 | 1,270 | 1,000 | 874 |
| 16 | 924 | 893 | 874 | | 868 | 837 | 1,780 | 1,200 | 1,060 | 1,340 | 996 | 874 |
| 17 | 918 | 886 | 868 | | 837 | 837 | 2,060 | 1,240 | 1,030 | 1,370 | 1,020 | 880 |
| 18 | 899 | 893 | 868 | | 806 | 868 | 1,980 | 1,270 | 990 | 1,420 | 1,020 | 880 |
| 19 | 912 | 880 | 899 | | 806 | 849 | 2,060 | 1,230 | 976 | 1,460 | 1,010 | 868 |
| 20 | 899 | 776 | 880 | 750 | 806 | 868 | 2,060 | 1,230 | 970 | 1,410 | 996 | 868 |
| 21 | 905 | 776 | 880 | | 806 | 868 | 2,180 | 1,240 | 957 | 1,420 | 970 | 868 |
| 22 | 918 | 764 | 880 | | 806 | 868 | 2,060 | 1,220 | 950 | 1,460 | 964 | 855 |
| 23 | 918 | 764 | 880 | | 837 | 868 | 1,940 | 1,190 | 950 | 1,440 | 957 | 861 |
| 24 | 899 | 880 | 899 | | 824 | 868 | 1,700 | 1,180 | 950 | 1,440 | 944 | 861 |
| 25 | 905 | 868 | 899 | | 764 | 899 | 1,630 | 1,180 | 938 | 1,440 | 950 | 855 |
| 26 | 905 | 868 | 868 | | 806 | 899 | 1,620 | 1,150 | 950 | 1,460 | 970 | 861 |
| 27 | 905 | 868 | 843 | | 806 | 899 | 1,610 | 1,150 | 1,020 | 1,440 | 970 | 861 |
| 28 | 912 | 855 | 806 | | 806 | 849 | 1,590 | 1,160 | 1,020 | 1,380 | 970 | 855 |
| 29 | 918 | 868 | 747 | | ------- | 849 | 1,600 | 1,130 | 1,110 | 1,340 | 976 | 868 |
| 30 | 905 | 899 | 689 | | ------- | 868 | 1,600 | 1,110 | 1,180 | 1,350 | 983 | 924 |
| 31 | 905 | ------- | 689 | | ------- | 837 | ------- | 1,110 | ------- | 1,330 | 983 | ------ |

NOTE.—Stage-discharge relation affected by ice Jan. 10 to Feb. 1; discharge estimated on basis of temperature, gage-height record, and observer's notes. Braced figures show mean discharge for period indicated.

*Monthly discharge of Henrys Fork at Warm River, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 996 | 899 | 929 | 57,100 |
| November | 996 | 764 | 878 | 52,200 |
| December | 931 | 689 | 864 | 53,100 |
| January | ------- | ------- | 770 | 47,300 |
| February | 868 | 718 | 818 | 45,400 |
| March | 899 | 794 | 843 | 51,800 |
| April | 2,180 | 837 | 1,430 | 85,100 |
| May | 1,640 | 1,110 | 1,320 | 81,200 |
| June | 1,180 | 938 | 1,020 | 60,700 |
| July | 1,460 | 1,080 | 1,350 | 83,000 |
| August | 1,310 | 944 | 1,080 | 66,400 |
| September | 1,040 | 855 | 918 | 54,600 |
| The year | 2,180 | ------- | 1,020 | 738,000 |

### HENRYS FORK NEAR ASHTON, IDAHO

LOCATION.—In sec. 33, T. 9 N., R. 42 E., one-fourth mile below Ora highway bridge, 3 miles below hydroelectric power plant of Utah Power & Light Co., and 5 miles southwest of Ashton, Fremont County.

DRAINAGE AREA.—1,040 square miles.

RECORDS AVAILABLE.—April 20, 1920, to September 30, 1926; August 20, 1902, to June 30, 1909, at Ora highway bridge one-fourth mile upstream, described as "North Fork of Snake River near Ora, Idaho." Records are comparable.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by R. H. Fuqua.

DISCHARGE MEASUREMENTS.—Made from cable a quarter of a mile above gage.

CHANNEL AND CONTROL.—Bed composed of coarse gravel. Control not well defined; subject to shifts during high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.99 feet at 10 p. m. April 21 (discharge, 3,560 second-feet); minimum stage, 0.42 foot at noon December 13 (discharge, 735 second-feet). A lower stage may have occurred during period of no record.

1902–1909, 1920–1926: Maximum stage recorded, 3.11 feet at 11 p. m. May 7, 1925 (discharge, 6,220 second-feet); minimum stage, 0.09 foot at noon August 15, 1924 (discharge, 575 second-feet).

ICE.—Stage-discharge relation not seriously affected by ice; observations discontinued during winter.

DIVERSIONS.—None above station.

REGULATION.—None except that due to operation of gates at dam of Utah Power & Light Co.'s plant 3 miles above station.

ACCURACY.—Stage-discharge relation not permanent. Rating curve fairly well defined. Operation of water-stage recorder satisfactory. Discharge ascertained by shifting-control method. Records fair.

*Discharge measurements of Henrys Fork near Ashton, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 17 | 0.86 | 1,290 | June 3 | 0.92 | 1,460 | Aug. 8 | 0.96 | 1,410 |
| Apr. 21 | 1.27 | 2,080 | June 17 | .90 | 1,430 | Aug. 24 | .67 | 1,180 |
| May 11 | 1.42 | 2,230 | July 1 | 1.04 | 1,620 | Aug. 29 | .83 | 1,290 |

*Daily discharge, in second-feet, of Henrys Fork near Ashton, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | 956 | 1,230 | | 2,460 | 1,460 | 1,670 | 1,600 | 1,280 |
| 2 | | 1,190 | 1,310 | | 2,440 | 1,460 | 1,730 | 1,660 | 1,310 |
| 3 | | 1,390 | 1,430 | | 2,350 | 1,460 | 1,730 | 1,480 | 1,380 |
| 4 | | 1,220 | 1,230 | | 2,250 | 1,430 | 1,730 | 1,580 | 1,430 |
| 5 | | 1,410 | 1,280 | | 2,420 | 1,390 | 1,710 | 1,600 | 1,390 |
| 6 | | 1,190 | 1,280 | | 2,540 | 1,360 | 1,730 | 1,510 | 1,310 |
| 7 | | 1,230 | 1,280 | | 2,440 | 1,330 | 1,730 | 1,570 | 1,250 |
| 8 | | 1,230 | 1,260 | | 2,210 | 1,360 | 1,880 | 1,430 | 1,280 |
| 9 | | 1,200 | 1,260 | | 2,130 | 1,330 | 1,790 | 1,410 | 1,300 |
| 10 | | 1,280 | 1,230 | | 2,090 | 1,330 | 1,790 | 1,440 | 1,330 |
| 11 | | 1,280 | 1,200 | | 2,010 | 1,300 | 1,710 | 1,330 | 1,200 |
| 12 | | 1,300 | 1,190 | | 1,750 | 1,260 | 1,360 | 1,430 | 1,140 |
| 13 | | 1,250 | 1,250 | | 1,750 | 1,230 | 1,390 | 1,390 | 1,140 |
| 14 | | 1,250 | 1,190 | | 1,690 | 1,330 | 1,380 | 1,260 | 1,140 |
| 15 | | 1,230 | 1,260 | | 1,660 | 1,530 | 1,530 | 1,250 | 1,140 |
| 16 | | 1,280 | 1,260 | | 1,640 | 1,340 | 1,730 | 1,260 | 1,160 |
| 17 | 1,300 | 1,230 | 1,260 | | 1,690 | 1,460 | 1,710 | 1,260 | 1,170 |
| 18 | 1,220 | 1,220 | | | 1,840 | 1,310 | 1,730 | 1,330 | 1,200 |
| 19 | 1,120 | 1,200 | | | 1,710 | 1,330 | 1,860 | 1,330 | 1,170 |
| 20 | 1,020 | 1,200 | | | 1,670 | 1,310 | 1,790 | 1,340 | 1,160 |
| 21 | 907 | 1,190 | | 2,920 | 1,770 | 1,260 | 1,730 | 1,310 | 1,140 |
| 22 | 872 | 1,200 | | 3,230 | 1,670 | 1,230 | 1,800 | 1,280 | 1,160 |
| 23 | 872 | 1,100 | | 2,990 | 1,600 | 1,190 | 1,840 | 1,260 | 1,130 |
| 24 | 896 | 1,170 | | 2,540 | 1,600 | 1,230 | 1,770 | 1,200 | 1,230 |
| 25 | 941 | 1,140 | | 2,420 | 1,640 | 1,250 | 1,770 | 1,200 | 1,160 |
| 26 | 986 | 1,220 | | 2,350 | 1,510 | 1,200 | 1,790 | 1,220 | 1,160 |
| 27 | 1,030 | 1,220 | | 2,330 | 1,600 | 1,300 | 1,820 | 1,300 | 1,060 |
| 28 | 1,080 | 1,220 | | 2,230 | 1,580 | 1,360 | 1,670 | 1,230 | 1,030 |
| 29 | 1,120 | 1,140 | | 2,350 | 1,620 | 1,340 | 1,570 | 1,340 | 1,060 |
| 30 | 1,160 | 1,230 | | 2,370 | 1,530 | 1,460 | 1,660 | 1,340 | 1,230 |
| 31 | 1,130 | | | | 1,510 | | 1,640 | 1,360 | |

NOTE.—No record Oct. 1-16 and Dec. 18 to Apr. 20.

*Monthly discharge of Henrys Fork near Ashton, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October 17–31 | 1,300 | 872 | 1,040 | 30,900 |
| November | 1,410 | 956 | 1,220 | 72,600 |
| December 1–17 | 1,430 | 1,190 | 1,260 | 42,500 |
| April 21–30 | 3,230 | 2,230 | 2,570 | 51,000 |
| May | 2,540 | 1,510 | 1,880 | 116,000 |
| June | 1,530 | 1,190 | 1,340 | 79,700 |
| July | 1,860 | 1,360 | 1,700 | 105,000 |
| August | 1,660 | 1,200 | 1,370 | 84,200 |
| September | 1,430 | 1,030 | 1,210 | 72,000 |

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

Between Ashton and St. Anthony gaging stations six separate canals divert water from Henrys Fork for irrigation. Gaging stations are maintained at headings of each canal by the United States Geological Survey for the Idaho State Department of Reclamation to facilitate distribution of water. Records are available from June 1, 1919, to September, 30, 1926.

Stage-discharge relation on most of the canals affected by growth of aquatic plants or by operation of check gates. Rating curves well defined. Gages read to hundredths once daily except May 1–19 when occasional readings were made. Discharge interpolated for these days. Records good.

*Daily discharge, in second-feet, of canals diverting from Henrys Fork between Ashton and St. Anthony gaging stations, for the irrigation season of 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,280 | 1,190 | 805 | 542 | 318 | 16 | 1,320 | 817 | 771 | 425 | 401 |
| 2 | 1,280 | 1,220 | 683 | 556 | 397 | 17 | 1,270 | 807 | 809 | 417 | 402 |
| 3 | 1,280 | 1,130 | 722 | 526 | 403 | 18 | 1,280 | 777 | 817 | 422 | 393 |
| 4 | 1,280 | 1,110 | 699 | 561 | 330 | 19 | 1,260 | 752 | 821 | 428 | 395 |
| 5 | 1,280 | 1,100 | 711 | 567 | 365 | 20 | 1,310 | 843 | 818 | 437 | 363 |
| 6 | 1,280 | 1,070 | 736 | 542 | 368 | 21 | 1,300 | 760 | 822 | 424 | 352 |
| 7 | 1,280 | 1,220 | 760 | 559 | 349 | 22 | 1,250 | 691 | 805 | 422 | 358 |
| 8 | 1,280 | 1,160 | 742 | 559 | 342 | 23 | 1,220 | 651 | 807 | 428 | 358 |
| 9 | 1,280 | 1,060 | 715 | 551 | 347 | 24 | 1,210 | 693 | 759 | 452 | 379 |
| 10 | 1,280 | 1,010 | 814 | 463 | 391 | 25 | 1,140 | 752 | 761 | 456 | 369 |
| 11 | 1,290 | 854 | 840 | 448 | 392 | 26 | 1,100 | 740 | 669 | 414 | 376 |
| 12 | 1,290 | 750 | 778 | 469 | 373 | 27 | 1,100 | 582 | 657 | 398 | 344 |
| 13 | 1,300 | 729 | 853 | 458 | 409 | 28 | 1,180 | 621 | 631 | 385 | 274 |
| 14 | 1,310 | 770 | 762 | 446 | 380 | 29 | 1,190 | 596 | 628 | 394 | 269 |
| 15 | 1,320 | 861 | 746 | 425 | 380 | 30 | 1,260 | 656 | 632 | 402 | 233 |
| | | | | | | 31 | 1,220 | ------ | 572 | 336 | ------ |

NOTE.—No records Oct. 1 to Apr. 30. Occasional gage readings May 1–19.

*Monthly discharge of canals diverting from Henrys Fork between Ashton and St. Anthony gaging stations for the irrigation season of 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 1,320 | 1,100 | 1,260 | 77,500 |
| June | 1,220 | 582 | 866 | 51,500 |
| July | 853 | 572 | 747 | 45,900 |
| August | 567 | 336 | 462 | 28,400 |
| September | 409 | 233 | 360 | 21,400 |
| The period | | | | 225,000 |

### HENRYS FORK AT ST. ANTHONY, IDAHO

LOCATION.—In sec. 1, T. 7 N., R. 40 E., half a mile upstream from bridge on main street of St. Anthony, Fremont County, and 9 miles below mouth of Fall River.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 26, 1919, to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by T. W. Luetjen.

DISCHARGE MEASUREMENTS.—Made from cable 600 feet below gage.

CHANNEL AND CONTROL.—Bed composed of coarse gravel and outcrops of lava. One channel at all stages. Control shifts slightly at high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.96 feet at 5 p. m. April 23 (discharge, 4,000 second-feet); minimum stage recorded, 3.08 feet at 6 a. m. August 22 (discharge, 630 second-feet).

1919–1926: Maximum stage recorded, 6.70 feet at 2 a. m. May 8, 1925 (discharge, 9,030 second-feet); minimum stage, 2.87 feet June 28, 1924 (discharge, 476 second-feet).

ICE.—Stage-discharge relation seriously affected by ice; observations discontinued during winter.

DIVERSIONS.—Numerous diversions both above and below station.

REGULATION.—Flow affected by manipulation of canal head gates above station and by operation of Utah Power & Light Co.'s power plant 17 miles upstream.

ACCURACY.—Stage-discharge relation not permanent. Rating curve fairly well defined. Operation of water-stage recorder satisfactory. Discharge ascertained by shifting-control method. Records good.

COOPERATION.—Part of gage-height record supervision furnished by Utah Power & Light Co.

*Discharge measurements of Henrys Fork at St. Anthony, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 19 | 3.79 | 1,480 | May 25 | 4.41 | 2,660 | Aug. 9 | 3.53 | 1,140 |
| Apr. 23 | 4.90 | 3,850 | June 18 | 3.19 | 755 | Sept. 1 | 3.58 | 1,180 |
| May 13 | 3.70 | 1,330 | July 17 | 3.46 | 1,030 | | | |

*Daily discharge, in second-feet, of Henrys Fork at St. Anthony, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | 1,630 | 1,350 | | 3,310 | 1,410 | 1,060 | 1,170 | 1,200 |
| 2 | 1,610 | 1,460 | | 3,360 | 1,230 | 1,240 | 1,240 | 1,170 |
| 3 | 1,600 | 1,800 | | 3,030 | 1,100 | 1,210 | 1,160 | 1,170 |
| 4 | 1,460 | 1,600 | | 2,850 | 1,020 | 1,270 | 1,230 | 1,430 |
| 5 | 1,490 | 1,780 | | 3,340 | 890 | 1,230 | 1,240 | 1,400 |
| 6 | 1,610 | 1,600 | | 3,720 | 970 | 1,260 | 1,140 | 1,290 |
| 7 | 1,800 | 1,610 | | 3,100 | 1,290 | 1,160 | 1,180 | 1,170 |
| 8 | 1,820 | 1,610 | | 2,600 | 1,180 | 1,290 | 1,070 | 1,180 |
| 9 | 1,720 | 1,630 | | 2,340 | 1,050 | 1,300 | 1,140 | 1,210 |
| 10 | 1,690 | 1,640 | | 2,070 | 1,130 | 1,130 | 1,200 | 1,180 |
| 11 | 1,670 | 1,660 | | 1,840 | 1,110 | 970 | 1,110 | 1,050 |
| 12 | 1,650 | 1,670 | | 1,530 | 924 | 824 | 1,180 | 924 |
| 13 | 1,670 | 1,690 | | 1,380 | 844 | 782 | 1,140 | 924 |
| 14 | 1,630 | 1,700 | | 1,400 | 771 | 824 | 1,040 | 936 |
| 15 | 1,600 | 1,720 | | 1,320 | 924 | 924 | 996 | 936 |
| 16 | 1,600 | 1,760 | | 1,330 | 771 | 1,090 | 1,050 | 890 |
| 17 | 1,530 | 1,760 | | 1,650 | 792 | 1,070 | 1,040 | 890 |
| 18 | 1,440 | 1,780 | | 2,130 | 750 | 1,060 | 1,070 | 912 |
| 19 | 1,380 | 1,760 | | 1,970 | 782 | 1,180 | 1,170 | 890 |
| 20 | 1,300 | 1,720 | | 2,110 | 936 | 1,170 | 1,160 | 866 |

*Daily discharge, in second-feet, of Henrys Fork at St. Anthony, Idaho, for the year ending September 30, 1926—Continued*

| Day | Oct. | Nov. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 21 | 1,240 | 1,720 | ------- | 2,520 | 970 | 1,110 | 1,050 | 936 |
| 22 | 1,210 | 1,720 | ------- | 2,360 | 996 | 1,140 | 958 | 958 |
| 23 | 1,230 | 1,560 | 4,000 | 2,300 | 878 | 1,240 | 958 | 936 |
| 24 | 1,260 | 1,630 | 3,600 | 2,600 | 813 | 1,210 | 912 | 970 |
| 25 | 1,240 | 1,540 | 3,260 | 2,690 | 782 | 1,140 | 912 | 947 |
| 26 | 1,260 | 1,650 | 3,170 | 2,300 | 782 | 1,210 | 936 | 958 |
| 27 | 1,380 | 1,670 | 3,010 | 1,930 | 1,050 | 1,270 | 996 | 983 |
| 28 | 1,490 | 1,650 | 2,900 | 1,780 | 1,070 | 1,210 | 970 | 983 |
| 29 | 1,560 | 1,610 | 2,940 | 1,670 | 1,040 | 1,070 | 1,100 | 1,070 |
| 30 | 1,490 | 1,700 | 3,080 | 1,600 | 1,140 | 1,180 | 1,110 | 1,210 |
| 31 | 1,490 | ------- | ------- | 1,630 | ------- | 1,210 | 1,170 | ------- |

NOTE.—No record Dec. 1 to Apr. 22. Discharge interpolated Nov. 9–14 because of missing gage heights.

*Monthly discharge of Henrys Fork at St. Anthony, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 1,820 | 1,210 | 1,510 | 92,800 |
| November | 1,800 | 1,350 | 1,660 | 98,800 |
| April 23–30 | 4,000 | 2,900 | 3,240 | 51,400 |
| May | 3,720 | 1,320 | 2,250 | 138,000 |
| June | 1,410 | 750 | 980 | 58,300 |
| July | 1,300 | 782 | 1,130 | 69,500 |
| August | 1,240 | 912 | 1,090 | 67,000 |
| September | 1,430 | 866 | 1,050 | 62,500 |

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

Between St. Anthony and Rexburg gaging stations four separate canals divert water from Henrys Fork for irrigation. Gaging stations are maintained at heading of each canal by the United States Geological Survey for the Idaho State Department of Reclamation to facilitate the distribution of water. Records are available from June 1, 1919, to September 30, 1926.

Stage-discharge relation on many of the canals affected by growth of aquatic plants. Rating curves well defined. Gages read to hundredths once daily except May 1–19, when occasional readings were made. Records good.

*Combined daily discharge, in second-feet, of canals diverting from Henrys Fork between St. Anthony and Rexburg gaging stations, for the irrigation season of 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 986 | 893 | 671 | 476 | 531 | 16 | 1,040 | 745 | 750 | 544 | 384 |
| 2 | 991 | 850 | 770 | 486 | 535 | 17 | 1,050 | 747 | 760 | 564 | 384 |
| 3 | 994 | 861 | 761 | 518 | 523 | 18 | 1,060 | 671 | 751 | 570 | 375 |
| 4 | 997 | 851 | 689 | 562 | 534 | 19 | 1,050 | 769 | 707 | 566 | 378 |
| 5 | 1,010 | 837 | 700 | 606 | 533 | 20 | 1,040 | 748 | 554 | 569 | 353 |
| 6 | 1,010 | 817 | 694 | 637 | 474 | 21 | 1,020 | 721 | 661 | 534 | 360 |
| 7 | 1,010 | 813 | 692 | 611 | 469 | 22 | 1,010 | 655 | 714 | 543 | 343 |
| 8 | 1,010 | 780 | 660 | 611 | 454 | 23 | 1,010 | 635 | 691 | 501 | 343 |
| 9 | 1,020 | 783 | 654 | 500 | 485 | 24 | 993 | 693 | 646 | 477 | 351 |
| 10 | 1,030 | 703 | 675 | 521 | 485 | 25 | 902 | 689 | 650 | 521 | 350 |
| 11 | 1,030 | 705 | 688 | 499 | 431 | 26 | 871 | 582 | 683 | 535 | 368 |
| 12 | 1,040 | 689 | 679 | 539 | 447 | 27 | 852 | 605 | 662 | 524 | 347 |
| 13 | 1,040 | 724 | 718 | 525 | 434 | 28 | 888 | 669 | 629 | 541 | 363 |
| 14 | 1,030 | 715 | 784 | 529 | 431 | 29 | 941 | 672 | 575 | 553 | 306 |
| 15 | 1,040 | 740 | 624 | 515 | 434 | 30 | 957 | 708 | 580 | 539 | 275 |
| | | | | | | 31 | 896 | ------- | 585 | 539 | ------- |

NOTE.—No record obtained from Oct. 1 to Apr. 30. Discharge partly estimated May 1–19.

*Monthly discharge of canals diverting from Henrys Fork between St. Anthony and Rexburg gaging stations, for the irrigation season of 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 1,060 | 852 | 994 | 61,100 |
| June | 893 | 582 | 736 | 43,800 |
| July | 784 | 554 | 679 | 41,800 |
| August | 637 | 476 | 545 | 33,500 |
| September | 535 | 275 | 416 | 24,800 |
| The period | | | | 205,000 |

**HENRYS FORK NEAR REXBURG, IDAHO**

LOCATION.—In sec. 30, T. 6 N., R. 39 E., just below highway bridge, 1 mile below mouth of south channel of Teton River, 7 miles below mouth of main channel of Teton River and 7 miles west of Rexburg, Madison County. Below all tributaries.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 13, 1909, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank about 250 feet below bridge; inspected by Mrs. Irvin Siepert.

DISCHARGE MEASUREMENTS.—Made from cable three-quarters of a mile below gage, from highway bridge, or by wading.

CHANNEL AND CONTROL.—Bed composed of mud, sand, and fine gravel; shifting. Except at bridge, left bank is overflowed at high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.77 feet 12 p. m. to 4 a. m. April 23 (discharge, 4,950 second-feet); minimum discharge, 636 second-feet June 26 (gage height, 2.49 feet).

1909–1926: Maximum discharge recorded, 8,980 second-feet May 23, 1925 (gage height, 9.8 feet); minimum stage recorded, 2.00 feet June 28 and 29, 1919 (discharge, 355 second-feet).

ICE.—Stage-discharge relation seriously affected by ice; observations discontinued during winter.

DIVERSIONS.—A large percentage of natural summer flow is diverted above station.

REGULATION.—None except that due to operation of head gates of irrigation canals.

ACCURACY.—Stage-discharge relation not permanent. Rating curve fairly well defined. Operation of water-stage recorder satisfactory. Discharge ascertained by shifting-control method. Records fair.

*Discharge measurements of Henrys Fork near Rexburg, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 20 | 4.43 | 1,820 | June 3 | 3.33 | 1,100 | Aug. 23 | 2.84 | 872 |
| Nov. 27 | 4.67 | 2,030 | June 17 | 2.61 | 663 | Sept. 8 | 3.04 | 1,020 |
| Apr. 1 | 3.94 | 1,600 | July 8 | 3.06 | 972 | Sept. 15 | 2.78 | 911 |
| Apr. 23 | 7.71 | 4,890 | July 21 | 2.94 | 957 | Sept. 26 | 2.99 | 1,080 |
| May 15 | 3.00 | 802 | Aug. 6 | 2.82 | 865 | | | |

*Daily discharge, in second-feet, of Henrys Fork near Rexburg, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | 1,960 | 1,840 | 1,600 | 2,860 | 1,460 | 906 | 951 | 991 |
| 2 | 1,960 | 1,840 | 1,640 | 3,260 | 1,280 | 928 | 991 | 1,010 |
| 3 | 1,960 | 2,220 | 1,700 | 3,260 | 1,120 | 956 | 1,010 | 968 |
| 4 | 1,880 | 2,220 | 1,730 | 2,960 | 985 | 974 | 956 | 1,100 |
| 5 | 1,880 | 2,130 | 1,590 | 2,760 | 857 | 985 | 962 | 1,170 |
| 6 | 2,040 | 1,130 | 1,670 | 3,360 | 785 | 1,000 | 901 | 1,160 |
| 7 | 2,220 | 2,040 | 1,900 | 3,560 | 826 | 951 | 901 | 1,070 |
| 8 | 2,310 | 2,040 | 1,890 | 2,860 | 1,060 | 1,020 | 912 | 1,020 |
| 9 | 2,310 | 2,040 | 1,880 | 2,390 | 962 | 1,130 | 985 | 1,050 |
| 10 | 2,220 | 2,040 | 1,820 | 1,960 | 1,010 | 1,080 | 1,030 | 1,050 |
| 11 | 2,130 | 2,130 | 1,850 | 1,600 | 1,110 | 945 | 1,040 | 1,030 |
| 12 | 2,220 | 2,130 | 1,930 | 1,360 | 997 | 821 | 1,030 | 962 |
| 13 | 2,220 | 2,130 | 2,160 | 1,140 | 874 | 726 | 1,080 | 884 |
| 14 | 2,220 | 2,130 | 2,250 | 951 | 805 | 682 | 1,020 | 901 |
| 15 | 2,130 | 2,130 | 2,590 | 810 | 780 | 721 | 923 | 923 |
| 16 | 2,130 | 2,130 | 2,860 | 790 | 760 | 790 | 901 | 940 |
| 17 | 2,130 | 2,130 | 3,340 | 874 | 678 | 857 | 901 | 934 |
| 18 | 2,040 | 2,130 | 3,930 | 1,150 | 673 | 821 | 912 | 956 |
| 19 | 1,960 | 2,130 | 4,120 | 1,280 | 659 | 852 | 962 | 956 |
| 20 | 1,840 | 2,040 | 4,400 | 1,230 | 659 | 923 | 1,010 | 923 |
| 21 | 1,800 | 1,960 | 4,700 | 1,670 | 790 | 940 | 968 | 940 |
| 22 | 1,680 | 2,040 | 4,780 | 2,200 | 836 | 857 | 917 | 997 |
| 23 | 1,640 | 2,040 | 4,880 | 2,140 | 831 | 874 | 884 | 997 |
| 24 | 1,680 | 2,040 | 4,460 | 2,350 | 730 | 928 | 890 | 968 |
| 25 | 1,640 | 2,040 | 3,760 | 2,760 | 701 | 912 | 852 | 1,060 |
| 26 | 1,680 | 1,960 | 3,260 | 2,760 | 636 | 847 | 810 | 1,070 |
| 27 | 1,760 | 2,040 | 3,060 | 2,210 | 745 | 956 | 821 | 1,130 |
| 28 | 1,840 | ------- | 2,760 | 1,910 | 847 | 997 | 847 | 1,100 |
| 29 | 1,960 | ------- | 2,670 | 1,630 | 842 | 945 | 826 | 1,150 |
| 30 | 1,880 | ------- | 2,670 | 1,470 | 836 | 928 | 890 | 1,330 |
| 31 | 1,960 | ------- | ------- | 1,460 | ------- | 928 | 890 | ------- |

NOTE.—No record Nov. 28 to Mar. 31.

*Monthly discharge of Henrys Fork near Rexburg, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 2,310 | 1,640 | 1,980 | 122,000 |
| November 1–27 | 2,220 | 1,840 | 2,070 | 111,000 |
| April | 4,880 | 1,600 | 2,800 | 167,000 |
| May | 3,560 | 790 | 2,030 | 125,000 |
| June | 1,460 | 636 | 871 | 51,800 |
| July | 1,130 | 682 | 909 | 55,900 |
| August | 1,080 | 810 | 935 | 57,500 |
| September | 1,330 | 884 | 1,020 | 60,700 |

### WARM RIVER AT WARM RIVER, IDAHO

LOCATION.—In sec. 13, T. 9 N., R. 43 E., at highway bridge half a mile above mouth and half a mile northeast of Warm River, Fremont County. Robinson Creek enters a quarter of a mile below station.

DRAINAGE AREA.—144 square miles (measured on Forest Service maps).

RECORDS AVAILABLE.—January 24, 1912, to March 22, 1915; April 3, 1918, to September 30, 1926.

GAGE.—Vertical staff on downstream side of highway bridge bent near right bank.

DISCHARGE MEASUREMENTS.—Made by wading 100 feet above gage.

CHANNEL AND CONTROL.—Bed composed of large cobbles in gravel drift. Control subject to slight shifts.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.80 feet April 17–19 (discharge, 345 second-feet); minimum stage, 1.22 feet at 10 a. m. March 6 (discharge, 170 second-feet).

1912–1915, 1918–1926: Maximum stage recorded, 2.3 feet (original gage) June 2, 1912 (discharge, 900 second-feet) minimum stage, 1.00 foot December 19, 1924 (discharge, 123 second-feet).

ICE.—Stage-discharge relation not affected by ice owing to the spring-fed character of stream; extreme minimum flow however attributed to ice jams in tributary streams above.

DIVERSIONS.—None.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Two fairly well defined rating curves used during year. Gage read to hundredths once daily. Daily discharge ascertained by applying mean daily gage height to rating table October 1 to April 19 and by shifting-control method April 20 to September 30. Monthly records good and daily records fair.

*Discharge measurements of Warm River at Warm River, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 18 | 1.36 | 205 | May 5 | 1.64 | 287 | Aug. 2 | 1.28 | 191 |
| Nov. 28 | 1.33 | 206 | May 29 | 1.42 | 219 | Aug. 23 | 1.27 | 196 |
| Feb. 6 | 1.32 | 197 | June 27 | 1.32 | 209 | Sept. 12 | 1.27 | 199 |
| Apr. 24 | 1.64 | 283 | July 8 | 1.31 | 205 | | | |

*Daily discharge, in second-feet, of Warm River at Warm River, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 222 | 210 | 210 | 187 | 193 | 193 | 216 | 285 | 210 | 213 | 201 | 198 |
| 2 | 219 | 213 | 210 | 187 | 193 | 193 | 193 | 273 | 210 | 207 | 198 | 198 |
| 3 | 219 | 213 | 198 | 193 | 193 | 193 | 193 | 273 | 210 | 207 | 201 | 198 |
| 4 | 219 | 210 | 193 | 193 | 193 | 193 | 193 | 285 | 210 | 207 | 201 | 198 |
| 5 | 219 | 210 | 198 | 193 | 193 | 187 | 198 | 282 | 207 | 201 | 201 | 198 |
| 6 | 222 | 204 | 198 | 193 | 198 | 170 | 204 | 273 | 207 | 201 | 201 | 198 |
| 7 | 222 | 204 | 198 | 187 | 193 | 198 | 210 | 273 | 207 | 201 | 201 | 198 |
| 8 | 213 | 198 | 198 | 187 | 193 | 193 | 216 | 273 | 207 | 204 | 196 | 198 |
| 9 | 213 | 204 | 198 | 187 | 193 | 193 | 222 | 273 | 207 | 207 | 201 | 198 |
| 10 | 213 | 204 | 198 | 193 | 193 | 193 | 240 | 255 | 210 | 201 | 201 | 198 |
| 11 | 213 | 210 | 198 | 187 | 198 | 193 | 252 | 243 | 210 | 201 | 196 | 198 |
| 12 | 210 | 207 | 207 | 187 | 193 | 193 | 264 | 243 | 204 | 201 | 196 | 198 |
| 13 | 213 | 204 | 198 | 181 | 193 | 187 | 307 | 243 | 204 | 201 | 196 | 201 |
| 14 | 213 | 204 | 187 | 187 | 176 | 187 | 313 | 243 | 204 | 201 | 201 | 201 |
| 15 | 213 | 204 | 204 | 193 | 198 | 193 | 313 | 231 | 210 | 201 | 201 | 201 |
| 16 | 210 | 204 | 198 | 193 | 198 | 193 | 338 | 231 | 207 | 201 | 201 | 201 |
| 17 | 204 | 201 | 198 | 193 | 193 | 193 | 345 | 243 | 207 | 201 | 196 | 201 |
| 18 | 210 | 204 | 198 | 193 | 193 | 193 | 345 | 237 | 207 | 201 | 196 | 201 |
| 19 | 210 | 184 | 204 | 193 | 193 | 193 | 345 | 243 | 207 | 201 | 201 | 201 |
| 20 | 210 | 184 | 198 | 193 | 193 | 193 | 335 | 231 | 207 | 201 | 201 | 201 |
| 21 | 210 | 181 | 198 | 193 | 193 | 193 | 323 | 231 | 210 | 196 | 201 | 201 |
| 22 | 210 | 184 | 198 | 187 | 193 | 198 | 316 | 225 | 204 | 196 | 196 | 201 |
| 23 | 210 | 187 | 204 | 193 | 193 | 210 | 304 | 225 | 204 | 196 | 193 | 201 |
| 24 | 204 | 198 | 198 | 193 | 193 | 204 | 285 | 225 | 204 | 196 | 198 | 201 |
| 25 | 207 | 204 | 204 | 193 | 193 | 198 | 273 | 225 | 204 | 196 | 198 | 196 |
| 26 | 207 | 201 | 198 | 193 | 193 | 198 | 285 | 219 | 204 | 201 | 198 | 196 |
| 27 | 210 | 201 | 181 | 193 | 193 | 193 | 279 | 219 | 204 | 201 | 198 | 196 |
| 28 | 210 | 201 | 176 | 204 | 193 | 193 | 279 | 219 | 207 | 201 | 198 | 196 |
| 29 | 213 | 198 | 176 | 204 | ------- | 204 | 279 | 219 | 207 | 201 | 198 | 196 |
| 30 | 210 | 204 | 181 | 198 | ------- | 193 | 285 | 210 | 201 | 201 | 198 | 207 |
| 31 | 210 | ------- | 184 | 193 | ------- | 193 | ------- | 210 | ------- | 201 | 198 | ------ |

*Monthly discharge of Warm River at Warm River, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 222 | 204 | 213 | 13,100 |
| November | 213 | 181 | 201 | 12,000 |
| December | 210 | 176 | 196 | 12,100 |
| January | 204 | 181 | 192 | 11,800 |
| February | 198 | 176 | 193 | 10,700 |
| March | 210 | 170 | 194 | 11,900 |
| April | 345 | 193 | 272 | 16,200 |
| May | 285 | 210 | 244 | 15,000 |
| June | 210 | 201 | 207 | 12,300 |
| July | 207 | 196 | 201 | 12,400 |
| August | 201 | 193 | 199 | 12,200 |
| September | 207 | 196 | 199 | 11,800 |
| The year | 345 | 170 | 209 | 152,000 |

### ROBINSON CREEK AT WARM RIVER, IDAHO

LOCATION.—In sec. 13, T. 9 N., R. 43 E., at Oregon Short Line Railroad bridge, 300 yards above mouth and a third of a mile northeast of Warm River, Fremont County.

DRAINAGE AREA.—About 41 square miles (measured on Forest Service maps).

RECORDS AVAILABLE.—January 24, 1912, to March 22, 1915, April 4, 1918, to September 30, 1926.

GAGE.—Vertical staff attached to downstream side of pile bent of railroad bridge; read by Messrs. Howard, Boyle, and Carter.

DISCHARGE MEASUREMENTS.—Made from railroad bridge, from footbridge one-fourth mile above gage, or by wading.

CHANNEL AND CONTROL.—Bed composed of cobbles in gravel drift. Control is a well-defined cobble riffle 100 feet below gage; subject to occasional shifts.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.56 feet May 5 (discharge, 557 second-feet); minimum stage, 0.63 foot September 11 (discharge, 55 second-feet).

1912–1915, 1918–1926: Maximum stage recorded, 4.3 feet May 28, 1912 (discharge, 1,140 second-feet); minimum discharge estimated, 32 second-feet December 18–20, 1925.

ICE.—Stage-discharge relation affected by ice for short periods during winter.

DIVERSIONS.—None above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation subject to minor shifts; affected by ice December 14–16, 31, January 1–31 and February 15, 16. Rating curves well defined. Staff gage read once daily to hundredths. Daily discharge ascertained by applying daily gage height to rating table except for ice-affected periods, and shifting-control method used June 8 to September 30.

*Discharge measurements of Robinson Creek at Warm River, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 18 | 0.82 | 86 | May 13 | 1.47 | 224 | Aug. 2 | 0.68 | 63 |
| Nov. 28 | .78 | 82 | June 7 | .95 | 106 | Aug. 23 | .70 | 68 |
| Feb. 6 | .76 | 74 | June 27 | .79 | 73 | Sept. 12 | .67 | 59 |
| Apr. 24 | 2.10 | 410 | July 8 | .77 | 71 | | | |

*Daily discharge, in second-feet, of Robinson Creek at Warm River, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 94 | 84 | 100 | | 70 | 68 | 87 | 460 | 126 | 76 | 64 | 60 |
| 2 | 90 | 95 | 126 | | 68 | 68 | 81 | 473 | 118 | 76 | 64 | 60 |
| 3 | 87 | 97 | 100 | | 68 | 73 | 78 | 403 | 126 | 73 | 64 | 58 |
| 4 | 94 | 90 | 94 | | 70 | 70 | 76 | 378 | 118 | 73 | 64 | 58 |
| 5 | 94 | 87 | 89 | | 78 | 68 | 87 | 557 | 114 | 70 | 64 | 58 |
| 6 | 100 | 84 | 87 | | 76 | 58 | 114 | 441 | 107 | 70 | 64 | 56 |
| 7 | 111 | 84 | 87 | | 73 | 68 | 122 | 347 | 105 | 70 | 64 | 58 |
| 8 | 100 | 81 | 84 | | 73 | 68 | 142 | 329 | 113 | 71 | 64 | 56 |
| 9 | 94 | 84 | 84 | | 68 | 68 | 160 | 317 | 109 | 78 | 64 | 58 |
| 10 | 92 | 84 | 84 | | 68 | 68 | 204 | 287 | 113 | 70 | 64 | 58 |
| 11 | 94 | 90 | 83 | | 70 | 68 | 258 | 258 | 116 | 70 | 64 | 55 |
| 12 | 100 | 90 | 87 | | 68 | 68 | 258 | 231 | 105 | 68 | 64 | 59 |
| 13 | 104 | 86 | 81 | | 68 | 65 | 305 | 228 | 102 | 68 | 64 | 53 |
| 14 | 97 | 86 | 79 | | 65 | 65 | 317 | 220 | 94 | 68 | 64 | 60 |
| 15 | 90 | 86 | 78 | | 63 | 68 | 323 | 220 | 87 | 68 | 64 | 53 |
| 16 | 90 | 84 | 78 | 60 | 63 | 76 | 396 | 220 | 87 | 66 | 64 | 58 |
| 17 | 87 | 84 | 78 | | 65 | 81 | 409 | 287 | 90 | 66 | 62 | 58 |
| 18 | 84 | 84 | 81 | | 68 | 78 | 511 | 258 | 87 | 64 | 62 | 60 |
| 19 | 87 | 80 | 84 | | 68 | 84 | 511 | 231 | 90 | 66 | 80 | 60 |
| 20 | 87 | 90 | 78 | | 68 | 81 | 511 | 231 | 90 | 66 | 74 | 60 |
| 21 | 87 | 81 | 78 | | 68 | 87 | 473 | 236 | 86 | 64 | 71 | 60 |
| 22 | 87 | 80 | 81 | | 65 | 90 | 544 | 209 | 86 | 64 | 64 | 60 |
| 23 | 87 | 80 | 84 | | 65 | 104 | 441 | 204 | 86 | 65 | 65 | 58 |
| 24 | 84 | 81 | 81 | | 68 | 111 | 409 | 194 | 80 | 65 | 66 | 58 |
| 25 | 84 | 81 | 78 | | 78 | 104 | 409 | 204 | 77 | 65 | 66 | 56 |
| 26 | 87 | 81 | 78 | | 70 | 97 | 409 | 179 | 77 | 65 | 64 | 58 |
| 27 | 87 | 83 | 70 | | 65 | 78 | 390 | 165 | 74 | 65 | 64 | 58 |
| 28 | 87 | 81 | 84 | | 68 | 78 | 390 | 156 | 73 | 65 | 64 | 58 |
| 29 | 89 | 84 | 81 | | ------- | 87 | 409 | 147 | 73 | 65 | 65 | 58 |
| 30 | 87 | 94 | 70 | | ------- | 84 | 421 | 134 | 70 | 64 | 63 | 92 |
| 31 | 86 | ------- | 68 | | ------- | 84 | ------- | 130 | ------- | 64 | 60 | ------- |

NOTE.—Braced figure shows estimated mean discharge for period indicated.

*Monthly discharge of Robinson Creek at Warm River, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 111 | 84 | 91.2 | 5,610 |
| November | 97 | 80 | 85.2 | 5,070 |
| December | 126 | 68 | 83.7 | 5,150 |
| January | ------- | ------- | 60.0 | 3,690 |
| February | 78 | 63 | 68.8 | 3,820 |
| March | 111 | 58 | 77.9 | 4,790 |
| April | 544 | 76 | 308 | 18,300 |
| May | 557 | 130 | 269 | 16,500 |
| June | 126 | 70 | 96.0 | 5,710 |
| July | 78 | 64 | 68.0 | 4,180 |
| August | 80 | 60 | 65.0 | 4,000 |
| September | 92 | 55 | 59.4 | 3,530 |
| The year | 557 | 55 | 111 | 80,400 |

### DIVERSIONS FROM FALL RIVER ABOVE GAGING STATION NEAR SQUIRREL, IDAHO

Three separate canals divert water from Fall River for irrigation above gaging station near Squirrel. Gaging stations are maintained at the headings of each canal by the United States Geological Survey for the Idaho State Department of Reclamation to facilitate distribution of water. Records are available from June 1, 1919, to September 30, 1926.

Stage-discharge relation of these canals affected by growth of aquatic plants. Rating curves fairly well defined. Gages read to hundredths once daily May 15 to September 30. Records good.

*Combined daily discharge, in second-feet, of canals diverting from Fall River above gaging station near Squirrel, Idaho, for the irrigation season of 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 63 | 98 | 70 | 0 | 16 | 47 | 215 | 14 | 0 | 21 |
| 2 | 0 | 185 | 99 | 71 | 0 | 17 | 47 | 220 | 10 | 0 | 21 |
| 3 | 0 | 197 | 99 | 70 | 0 | 18 | 50 | 224 | 9 | 0 | 22 |
| 4 | 0 | 206 | 99 | 81 | 0 | 19 | 54 | 17 | 9 | 10 | 27 |
| 5 | 0 | 221 | 99 | 81 | 0 | 20 | 57 | 0 | 9 | 22 | 31 |
| 6 | 0 | 230 | 98 | 81 | 4 | 21 | 62 | 0 | 9 | 26 | 13 |
| 7 | 0 | 236 | 103 | 11 | 11 | 22 | 66 | 43 | 9 | 26 | 0 |
| 8 | 0 | 244 | 120 | 4 | 17 | 23 | 91 | 129 | 9 | 35 | 0 |
| 9 | 0 | 242 | 121 | 0 | 18 | 24 | 133 | 105 | 9 | 35 | 8 |
| 10 | 0 | 236 | 120 | 0 | 18 | 25 | 144 | 105 | 8 | 35 | 9 |
| 11 | 0 | 235 | 57 | 0 | 18 | 26 | 155 | 52 | 9 | 34 | 9 |
| 12 | 0 | 236 | 22 | 0 | 19 | 27 | 170 | 0 | 8 | 37 | 9 |
| 13 | 0 | 224 | 22 | 0 | 21 | 28 | 161 | 0 | 8 | 37 | 10 |
| 14 | 0 | 217 | 21 | 0 | 21 | 29 | 161 | 0 | 44 | 36 | 19 |
| 15 | 0 | 210 | 20 | 0 | 21 | 30 | 20 | 25 | 70 | 28 | 25 |
| | | | | | | 31 | 21 | ------ | 70 | ------ | ------ |

*Combined monthly discharge of canals diverting from Fall River above gaging station near Squirrel, Idaho, for the irrigation season of 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 170 | 0 | 46.4 | 2,850 |
| June | 244 | 0 | 144 | 8,570 |
| July | 121 | 8 | 48.5 | 2,980 |
| August | 81 | 0 | 26.8 | 1,650 |
| September | 31 | 0 | 13.1 | 780 |
| The period | | | | 16,800 |

**FALL RIVER NEAR SQUIRREL, IDAHO**

LOCATION.—In sec. 35, T. 9 N., R. 44 E., 9 miles southeast of Marysville and 4 miles northeast of Squirrel post office, Fremont County. Marysville Canal diverts half a mile upstream.

DRAINAGE AREA.—390 square miles.

RECORDS AVAILABLE.—January 1, 1904, to June 30, 1909; May 2, 1918, to September 30, 1926. At Wilson's sawmill, 3 miles upstream, August 24, 1902, to December 31, 1903.

GAGE.—Vertical staff on left bank; read by J. D. Luetjen and B. Albert.

DISCHARGE MEASUREMENTS.—Made from cable 200 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of boulders in gravel drift. Banks high, clean, and not subject to overflow. One channel at all stages. Control formed by riffle below gage; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.95 feet, May 25 (discharge, 2,520 second-feet); minimum stage, 1.90 feet January 21 (discharge, indeterminate because of ice). Lower discharges may have occurred at other times during ice-affected period.

1904–1909, 1918–1926: Maximum stage recorded, 5.6 feet June 14, 15, and 23, 1918 (discharge, 5,380 second-feet); minimum stage, 1.46 feet at 1 p. m. January 19, 1924 (discharge, 124 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Three irrigation canals divert above station.

REGULATION.—None except that due to head-gate changes of canals above station.

ACCURACY.—Stage-discharge relation permanent except during ice-affected period December 27 to February 4. Rating curve fairly well defined. Gage read once daily to hundredths. Daily discharges ascertained by applying daily gage height to rating table, except during ice-affected period. Records good.

*Discharge measurements of Fall River near Squirrel, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Feb. 5 | 2.08 | 460 | June 16 | 2.16 | 550 | Sept. 19 | 2.02 | 439 |
| May 3 | 3.61 | 2,090 | July 10 | 2.08 | 479 | | | |
| May 12 | 2.84 | 1,150 | Aug. 20 | 2.10 | 483 | | | |

*Daily discharge, in second-feet, of Fall River near Squirrel, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 797 | 644 | 535 | | | 462 | 505 | 1,860 | 1,600 | 565 | 419 | 490 |
| 2 | 779 | 644 | 550 | | | 433 | 520 | 2,010 | 1,330 | 528 | 419 | 490 |
| 3 | 805 | 612 | 535 | | 440 | 433 | 520 | 2,000 | 1,210 | 505 | 412 | 476 |
| 4 | 869 | 628 | 535 | | | 419 | 535 | 1,910 | 1,130 | 498 | 412 | 476 |
| 5 | 719 | 628 | 535 | | 460 | 447 | 550 | 1,880 | 1,150 | 490 | 412 | 476 |
| 6 | 581 | 612 | 520 | | 462 | 433 | 535 | 1,830 | 1,310 | 490 | 433 | 462 |
| 7 | 550 | 597 | 520 | | 469 | 447 | 535 | 1,760 | 1,310 | 490 | 476 | 476 |
| 8 | 581 | 612 | 505 | | 476 | 447 | 550 | 1,710 | 1,260 | 490 | 520 | 462 |
| 9 | 612 | 612 | 490 | | 476 | 433 | 581 | 1,760 | 1,150 | 528 | 528 | 447 |
| 10 | 677 | 581 | 520 | | 462 | 419 | 628 | 1,680 | 1,070 | 476 | 490 | 433 |
| 11 | 694 | 597 | 520 | | 462 | 433 | 694 | 1,640 | 832 | 454 | 565 | 433 |
| 12 | 694 | 581 | 505 | | 447 | 433 | 710 | 1,310 | 814 | 550 | 520 | 419 |
| 13 | 644 | 565 | 505 | | 447 | 419 | 710 | 1,520 | 727 | 550 | 512 | 419 |
| 14 | 628 | 565 | 520 | | 433 | 447 | 744 | 1,380 | 644 | 589 | 490 | 419 |
| 15 | 661 | 581 | 520 | | 433 | 447 | 814 | 1,290 | 565 | 565 | 476 | 419 |
| 16 | 612 | 565 | 535 | 350 | 462 | 433 | 924 | 1,180 | 535 | 528 | 490 | 419 |
| 17 | 597 | 565 | 550 | | 447 | 419 | 1,100 | 1,270 | 528 | 550 | 476 | 419 |
| 18 | 581 | 550 | 520 | | 462 | 447 | 1,290 | 1,490 | 490 | 528 | 476 | 433 |
| 19 | 628 | 535 | 520 | | 433 | 447 | 1,590 | 1,640 | 727 | 565 | 661 | 433 |
| 20 | 628 | 550 | 520 | | 433 | 447 | 1,680 | 1,880 | 814 | 558 | 490 | 406 |
| 21 | 612 | 550 | 505 | | 433 | 447 | 1,780 | 2,240 | 744 | 528 | 490 | 419 |
| 22 | 597 | 550 | 505 | | 462 | 433 | 2,010 | 2,130 | 727 | 528 | 476 | 447 |
| 23 | 612 | 535 | 520 | | 447 | 433 | 1,860 | 2,040 | 565 | 528 | 476 | 447 |
| 24 | 636 | 520 | 535 | | 447 | 433 | 1,680 | 2,450 | 528 | 512 | 447 | 419 |
| 25 | 644 | 535 | 535 | | 447 | 447 | 1,590 | 2,520 | 526 | 505 | 433 | 419 |
| 26 | 628 | 535 | 520 | | 433 | 462 | 1,730 | 1,840 | 528 | 505 | 433 | 419 |
| 27 | 628 | 520 | | | 447 | 462 | 1,760 | 1,600 | 644 | 490 | 447 | 419 |
| 28 | 612 | 505 | | | 462 | 476 | 1,810 | 1,780 | 628 | 528 | 433 | 419 |
| 29 | 612 | 520 | 440 | | ------- | 476 | 1,880 | 1,700 | 644 | 433 | 462 | 419 |
| 30 | 628 | 520 | | | ------- | 490 | 1,780 | 1,780 | 628 | 419 | 462 | 565 |
| 31 | 628 | ------- | | | ------- | 490 | ------- | 1,840 | ------- | 419 | 476 | ------ |

NOTE.—Stage-discharge relation affected by ice Dec. 27 to Feb. 4; discharge estimated. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Fall River near Squirrel, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 869 | 550 | 651 | 40,000 |
| November | 644 | 505 | 570 | 33,900 |
| December | 550 | ---------- | 509 | 31,300 |
| January | ---------- | ---------- | 350 | 21,500 |
| February | 476 | ---------- | 450 | 25,000 |
| March | 490 | 419 | 445 | 27,400 |
| April | 2,010 | 505 | 1,120 | 66,600 |
| May | 2,520 | 1,180 | 1,770 | 109,000 |
| June | 1,600 | 490 | 845 | 50,300 |
| July | 589 | 419 | 513 | 31,500 |
| August | 661 | 412 | 475 | 29,200 |
| September | 565 | 419 | 443 | 26,400 |
| The year | 2,520 | ---------- | 680 | 492,000 |

**DIVERSIONS FROM FALL RIVER BETWEEN SQUIRREL AND CHESTER GAGING STATIONS, IDAHO**

Between Squirrel and Chester gaging stations nine separate canals divert water from Fall River for irrigation. Gaging stations are maintained at heading of each canal by the United States Geological Survey for the Idaho State Department of Reclamation to facilitate distribution of water. Records are available from June 1, 1919, to September 30, 1926.

Stage-discharge relation of many of the canals affected by growth of aquatic vegetation or by operation of check gates. Rating curves fairly well defined. Gages read to hundredths once daily except May 1–19, when occasional readings were made. Records good.

*Combined daily discharge, in second-feet, of canals diverting from Fall River between Squirrel and Chester gaging stations, for the irrigation season of 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 599 | 725 | 440 | 376 | 258 | 16 | 637 | 496 | 434 | 311 | 300 |
| 2 | 611 | 703 | 419 | 383 | 259 | 17 | 648 | 499 | 424 | 350 | 312 |
| 3 | 620 | 687 | 414 | 385 | 57 | 18 | 652 | 509 | 422 | 347 | 318 |
| 4 | 618 | 689 | 417 | 373 | 22 | 19 | 675 | 469 | 419 | 330 | 316 |
| 5 | 617 | 727 | 416 | 374 | 25 | 20 | 697 | 540 | 413 | 312 | 292 |
| 6 | 614 | 724 | 411 | 370 | 160 | 21 | 716 | 521 | 415 | 303 | 241 |
| 7 | 595 | 250 | 421 | 377 | 259 | 22 | 713 | 518 | 416 | 299 | 301 |
| 8 | 576 | 642 | 432 | 359 | 103 | 23 | 718 | 475 | 400 | 299 | 298 |
| 9 | 581 | 622 | 434 | 369 | 262 | 24 | 743 | 473 | 405 | 305 | 297 |
| 10 | 585 | 643 | 488 | 364 | 270 | 25 | 731 | 467 | 444 | 300 | 289 |
| 11 | 596 | 571 | 410 | 406 | 48 | 26 | 701 | 457 | 445 | 296 | 299 |
| 12 | 610 | 596 | 444 | 409 | 272 | 27 | 700 | 442 | 446 | 294 | 302 |
| 13 | 621 | 549 | 440 | 371 | 263 | 28 | 705 | 456 | 442 | 288 | 239 |
| 14 | 611 | 515 | 438 | 373 | 267 | 29 | 721 | 462 | 448 | 280 | 244 |
| 15 | 616 | 511 | 438 | 362 | 292 | 30 | 781 | 480 | 406 | 284 | 254 |
| | | | | | | 31 | 791 | ------ | 376 | 280 | ------ |

NOTE.—Occasional reading only May 1–19; discharge interpolated for days of no gage height.

*Combined monthly discharge of canals diverting from Fall River between Squirrel and Chester gaging stations, for the irrigation season of 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 791 | 576 | 658 | 40,500 |
| June | 727 | 250 | 547 | 32,500 |
| July | 488 | 376 | 426 | 26,200 |
| August | 409 | 280 | 340 | 20,900 |
| September | 318 | 22 | 237 | 14,100 |
| The period | ---------- | ---------- | ---------- | 134,000 |

### FALL RIVER NEAR CHESTER, IDAHO

LOCATION.—In sec. 13, T. 8 N., R. 41 E., half a mile above mouth and 2 miles north of Chester post office, Fremont County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 23, 1920, to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder on right bank.

DISCHARGE MEASUREMENTS.—Made from cable 100 feet downstream or by wading.

CHANNEL AND CONTROL.—Bed composed of boulders in drift and lava outcrop.

EXTREMES OF DISCHARGE. Maximum stage recorded during year, 4.30 feet 2 to 6 a. m. May 6 (discharge, 2,330 second-feet); minimum stage, 1.30 foot at noon July 30 (discharge, 38 second-feet).

1920–1926: Maximum stage recorded, 5.46 feet at 7 p. m. May 21, 1925 (discharge, 4,280 second-feet); minimum stage, 1.01 feet at 6 p. m. August 7, 1923 (discharge, 9 second-feet).

ICE.—Stage-discharge relation seriously affected by ice; observations discontinued during winter.

DIVERSIONS.—A number of irrigation canals divert above station.

REGULATION.—None except that due to manipulation of canal head gates above station.

ACCURACY.—Stage-discharge relation not permanent. Rating curve fairly well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method. Records fair.

*Discharge measurements of Fall River near Chester, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 6 | 4.22 | 2,230 | June 17 | 1.58 | 96 | Aug. 9 | 1.94 | 199 |
| May 11 | 3.07 | 929 | July 22 | 1.78 | 136 | Aug. 24 | 1.88 | 178 |
| June 4 | 2.64 | 624 | | | | | | |

*Daily discharge, in second-feet, of Fall River near Chester, Idaho, for the year ending September 30, 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,020 | 1,190 | 180 | 40 | 254 | 16 | 924 | 75 | 149 | 182 | 160 |
| 2 | 2,020 | 896 | 177 | 40 | 250 | 17 | 1,230 | 77 | 138 | 168 | 155 |
| 3 | 1,790 | 766 | 149 | 57 | 348 | 18 | 1,400 | 79 | 141 | 168 | 155 |
| 4 | 1,690 | 597 | 152 | 97 | 450 | 19 | 1,350 | 107 | 163 | 263 | 146 |
| 5 | 2,040 | 443 | 157 | 97 | 470 | 20 | 1,510 | 281 | 163 | 207 | 138 |
| 6 | 2,190 | 613 | 157 | 93 | 354 | 21 | 1,930 | 258 | 144 | 204 | 204 |
| 7 | 1,750 | 1,070 | 146 | 123 | 239 | 22 | 1,870 | 247 | 133 | 201 | 210 |
| 8 | 1,480 | 713 | 133 | 149 | 228 | 23 | 1,910 | 177 | 141 | 191 | 194 |
| 9 | 1,340 | 645 | 157 | 194 | 217 | 24 | 2,100 | 163 | 136 | 188 | 198 |
| 10 | 1,140 | 613 | 110 | 188 | 204 | 25 | 2,110 | 155 | 105 | 182 | 194 |
| 11 | 953 | 315 | 115 | 171 | 214 | 26 | 1,690 | 168 | 60 | 188 | 194 |
| 12 | 811 | 194 | 146 | 198 | 194 | 27 | 1,440 | 258 | 53 | 198 | 191 |
| 13 | 730 | 149 | 157 | 191 | 204 | 28 | 1,400 | 188 | 55 | 198 | 188 |
| 14 | 748 | 125 | 168 | 171 | 210 | 29 | 1,320 | 174 | 55 | 214 | 228 |
| 15 | 820 | 90 | 160 | 174 | 207 | 30 | 1,360 | 185 | 46 | 207 | 304 |
| | | | | | | 31 | 1,410 | ------ | 40 | 217 | ------ |

NOTE.—No gage-height records Oct. 1 to Apr. 30.

*Monthly discharge of Fall River near Chester, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 2,190 | 730 | 1,500 | 92,200 |
| June | 1,190 | 75 | 367 | 21,800 |
| July | 180 | 40 | 129 | 7,930 |
| August | 263 | 40 | 166 | 10,200 |
| September | 470 | 138 | 230 | 13,700 |
| The period | | | | 146,000 |

### TETON RIVER NEAR ST. ANTHONY, IDAHO

LOCATION.—In sec. 15, T. 7 N., R. 41 E., half a mile above Oregon Short Line Railroad bridge and 4 miles southeast of St. Anthony, Fremont County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 19, 1920, to September 30, 1926. April 23, 1903, to June 30, 1909, at Hog Hollow highway bridge three-quarters of a mile upstream; records comparable.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by Johnson and Reed.

DISCHARGE MEASUREMENTS.—Made from cable 50 feet below gage.

CHANNEL AND CONTROL.—Bed composed of fine, compact gravel drift. Control subject to shifts during higher stages and during periods of ice effect.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.31 feet at 6 a. m. May 6 (discharge, 2,370 second-feet); minimum stage, 0.14 foot from 8 to 10 p. m. September 22 (discharge, 390 second-feet); lower stages may have occurred during period of no record.

1903–1909, 1920–1926: Maximum stage recorded, 6.9 feet at 3 p. m. June 5, 1909 (discharge, 7,820 second-feet); minimum stage, 1.00 foot March 12, 1906 (discharge, 88 second-feet).

ICE.—Stage-discharge relation seriously affected by ice; observation discontinued during winter.

DIVERSIONS.—Several irrigation canals divert in Teton Basin, 20 miles above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Rating curves fairly well defined. Operation of water-stage recorder satisfactory. Discharge ascertained by applying mean daily gage height to rating table except May 7 to June 14, when shifting-control method was used. Records good.

*Discharge measurements of Teton River near St. Anthony, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 17 | 0.76 | 657 | June 15 | 1.00 | 799 | Aug. 25 | 0.23 | 427 |
| Apr. 2 | .41 | 532 | June 30 | .66 | 633 | Sept. 9 | .22 | 422 |
| May 4 | 2.54 | 1,760 | July 12 | .62 | 546 | Sept. 21 | .18 | 389 |
| May 13 | 1.24 | 886 | July 20 | .50 | 545 | Sept. 29 | .18 | 408 |
| May 22 | 2.48 | 1,660 | July 29 | .43 | 504 | | | |
| June 3 | 1.40 | 971 | Aug. 13 | .46 | 527 | | | |

*Daily discharge, in second-feet, of Teton River near St. Anthony, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 1 | 726 | 530 | 1,940 | 1,040 | 675 | 500 | 439 |
| 2 | 726 | 518 | 2,040 | 994 | 675 | 491 | 431 |
| 3 | 726 | 456 | 1,940 | 976 | 649 | 496 | 435 |
| 4 | 721 | 456 | 1,790 | 954 | 634 | 518 | 431 |
| 5 | 716 | 528 | 1,980 | 971 | 629 | 537 | 431 |
| 6 | 731 | 795 | 2,220 | 1,020 | 624 | 518 | 427 |
| 7 | 768 | 779 | 1,690 | 1,040 | 624 | 509 | 427 |
| 8 | 784 | 726 | 1,390 | 1,030 | 685 | 523 | 422 |
| 9 | 774 | 705 | 1,280 | 1,110 | 711 | 528 | 418 |
| 10 | 731 | 654 | 1,140 | 1,080 | 670 | 528 | 418 |
| 11 | 700 | 624 | 1,030 | 971 | 639 | 546 | 418 |
| 12 | 711 | 624 | 959 | 909 | 624 | 523 | 410 |
| 13 | 742 | 644 | 892 | 876 | 614 | 518 | 410 |
| 14 | 726 | 664 | 915 | 843 | 599 | 500 | 414 |
| 15 | 711 | 711 | 931 | 800 | 589 | 482 | 410 |
| 16 | 696 | 784 | 1,010 | 763 | 560 | 474 | 422 |
| 17 | 680 | 915 | 1,100 | 742 | 546 | 460 | 422 |
| 18 | ------ | 988 | 1,230 | 737 | 546 | 469 | 418 |
| 19 | ------ | 1,060 | 1,150 | 742 | 546 | 496 | 427 |
| 20 | ------ | 1,120 | 1,380 | 747 | 556 | 487 | 418 |
| 21 | ------ | 1,320 | 1,740 | 737 | 546 | 474 | 406 |
| 22 | ------ | 1,360 | 1,620 | 716 | 546 | 465 | 398 |
| 23 | ------ | 1,310 | 1,560 | 711 | 528 | 465 | 402 |
| 24 | ------ | 1,190 | 1,740 | 716 | 509 | 456 | 402 |
| 25 | ------ | 1,110 | 1,730 | 705 | 505 | 443 | 402 |
| 26 | ------ | 1,160 | 1,400 | 690 | 500 | 431 | 406 |
| 27 | ------ | 1,250 | 1,180 | 670 | 500 | 431 | 410 |
| 28 | ------ | 1,320 | 1,120 | 664 | 518 | 431 | 410 |
| 29 | ------ | 1,490 | 1,100 | 649 | 541 | 456 | 410 |
| 30 | ------ | 1,720 | 1,100 | 639 | 518 | 465 | 482 |
| 31 | ------ | ------ | 1,100 | ------ | 505 | 452 | ------ |

NOTE.—No record Oct. 18 to Mar. 31.

*Monthly discharge of Teton River near St. Anthony, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October 1–17 | 784 | 680 | 728 | 24,500 |
| April | 1,720 | 456 | 917 | 54,600 |
| May | 2,220 | 892 | 1,400 | 86,100 |
| June | 1,110 | 639 | 841 | 50,000 |
| July | 711 | 500 | 584 | 35,900 |
| August | 546 | 431 | 486 | 29,900 |
| September | 482 | 398 | 419 | 24,900 |

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

Between St. Anthony gaging station and mouth of Teton River 14 separate canals divert water for irrigation. Gaging stations are maintained at heading of each canal by the United States Geological Survey for the Idaho State Department of Reclamation to facilitate distribution of water. Records are available from June 1, 1919, to September 30, 1926.

Stage-discharge relation of these canals is affected by growth of aquatic plants. Rating curves are fairly well defined. Gages read to hundredths once daily except May 1–19, when occasional readings were made. Records good.

*Combined daily discharge, in second-feet, of canals diverting from Teton River between St. Anthony gaging station and mouth of river, for the irrigation season of 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 985 | 1,000 | 598 | 431 | 413 | 16 | 1,060 | 744 | 506 | 430 | 377 |
| 2 | 989 | 952 | 598 | 411 | 402 | 17 | 1,080 | 746 | 522 | 427 | 392 |
| 3 | 992 | 957 | 581 | 423 | 392 | 18 | 1,130 | 718 | 482 | 429 | 389 |
| 4 | 994 | 939 | 571 | 428 | 379 | 19 | 1,140 | 727 | 468 | 449 | 394 |
| 5 | 998 | 957 | 565 | 459 | 363 | 20 | 1,140 | 731 | 501 | 455 | 389 |
| 6 | 994 | 1,020 | 561 | 434 | 380 | 21 | 1,290 | 698 | 476 | 425 | 377 |
| 7 | 973 | 1,040 | 570 | 441 | 398 | 22 | 1,110 | 683 | 483 | 426 | 375 |
| 8 | 981 | 1,060 | 612 | 456 | 411 | 23 | 1,100 | 692 | 464 | 426 | 362 |
| 9 | 979 | 1,100 | 658 | 496 | 375 | 24 | 1,150 | 668 | 459 | 414 | 385 |
| 10 | 976 | 1,130 | 632 | 493 | 361 | 25 | 1,120 | 666 | 437 | 406 | 418 |
| 11 | 975 | 1,020 | 555 | 507 | 357 | 26 | 1,050 | 656 | 424 | 393 | 416 |
| 12 | 981 | 942 | 553 | 487 | 343 | 27 | 957 | 608 | 430 | 377 | 403 |
| 13 | 992 | 930 | 542 | 487 | 373 | 28 | 992 | 619 | 440 | 376 | 422 |
| 14 | 1,000 | 863 | 521 | 479 | 368 | 29 | 980 | 608 | 456 | 405 | 417 |
| 15 | 1,030 | 809 | 516 | 429 | 371 | 30 | 1,050 | 550 | 454 | 434 | 473 |
| | | | | | | 31 | 1,040 | | 435 | 413 | |

NOTE.—Discharge interpolated for days of no gage height during May.

*Combined monthly discharge of canals diverting from Teton River between St. Anthony gaging station and mouth of river, for the irrigation season of 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 1,290 | 957 | 1,040 | 64,000 |
| June | 1,130 | 550 | 828 | 49,300 |
| July | 658 | 424 | 518 | 31,900 |
| August | 507 | 376 | 437 | 26,900 |
| September | 473 | 343 | 389 | 23,100 |
| The period | | | | 195,000 |

### BLACKFOOT RIVER NEAR BLACKFOOT, IDAHO

LOCATION.—In sec. 27, T. 3 S., R. 34 E., 2 miles above confluence with Snake River and 8 miles southwest of Blackfoot, Bingham County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—July 27, 1913, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank, installed May 8; inspected by Eva Davis.

DISCHARGE MEASUREMENTS.—Made by wading or from cable 100 yards below gage.

CHANNEL AND CONTROL.—Bed composed of gravel. Control presumably of the same material; fairly permanent. One channel at all stages. Banks covered with heavy growth of brush and willows which may affect stage-discharge relation at high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.94 feet at 10 p. m. August 11 (discharge, 624 second-feet); no flow on several days.

1913–1926: Maximum stage recorded, 9.6 feet at 12.30 p. m. May 21, 1921 (discharge, 868 second-feet); no flow on numerous days in 1919, 1921, 1924, and 1926.

ICE.—No records obtained during winter.

DIVERSIONS.—Principal diversions above gage are the Fort Hall canals near Blackfoot; several smaller diversions, also made near Blackfoot.

REGULATION.—Flow regulated by storage in the Blackfoot-Marsh Reservoir of the United States Indian Service and by manipulation of canal head gates above station.

ACCURACY.—Stage-discharge relation not permanent. Rating curve well defined below 500 second-feet and poorly defined above. Operation of water-stage recorder satisfactory. Daily discharge ascertained May 8 to July 15 by applying to rating table mean daily gage height obtained from recorder graph by inspection and July 16 to September 30 by shifting-control method. Records good.

*Discharge measurements of Blackfoot River near Blackfoot, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 8 | 5.21 | 64 | June 14 | 6.15 | 248 | Aug. 7 | 6.32 | 270 |
| May 10 | 6.92 | 405 | June 22 | 4.31 | 3.05 | Aug. 9 | 6.67 | 350 |
| May 17 | 6.51 | 327 | June 26 | 4.21 | 1.5 | Aug. 10 | 7.37 | 468 |
| May 18 | 6.65 | 348 | Do | 4.80 | 23.4 | Aug. 12 | 6.90 | 396 |
| May 20 | 7.25 | 479 | June 30 | 5.03 | 44.8 | Aug. 20 | 6.53 | 314 |
| May 22 | 7.55 | 550 | July 7 | 4.20 | 2.0 | Do | 6.53 | 316 |
| May 25 | 6.98 | 434 | July 16 | 4.01 | .06 | Aug. 26 | ------ | .0 |
| May 30 | 5.07 | 47.1 | July 20 | 4.03 | .00 | Aug. 31 | 4.90 | 29.1 |
| June 7 | 5.76 | 169 | Aug. 2 | 6.13 | 233 | Sept. 6 | 4.82 | 21.6 |
| June 10 | 5.77 | 172 | Do | 6.09 | 224 | Sept. 13 | 4.16 | .82 |
| June 11 | 5.63 | 146 | Aug. 6 | 6.20 | 242 | Sept. 23 | 4.65 | 13.3 |

*Daily discharge, in second-feet, of Blackfoot River near Blackfoot, Idaho, for the year ending September 30, 1926*

| Day | May | June | July | Aug. | Sept. | | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 114 | 6 | 130 | 18 | 16 | 275 | 167 | 0 | 450 | 0 |
| 2 | ------ | 125 | 2 | 225 | 10 | 17 | 317 | 187 | 0 | 366 | 0 |
| 3 | ------ | 117 | 16 | 225 | 8 | 18 | 360 | 112 | 0 | 319 | 8 |
| 3 | ------ | 85 | 17 | 181 | 10 | 19 | 419 | 28 | 0 | 355 | 15 |
| 5 | ------ | 94 | 6 | 105 | 10 | 20 | 489 | 8 | 0 | 334 | 16 |
| 6 | ------ | 110 | 3 | 211 | 22 | 21 | 527 | 5 | 0 | 379 | 23 |
| 7 | ------ | 169 | 1 | 271 | 30 | 22 | 540 | 3 | 0 | 426 | 30 |
| 8 | 71 | 213 | 1 | 298 | 18 | 23 | 498 | 18 | 0 | 384 | 19 |
| 9 | 179 | 181 | 1 | 368 | 1 | 24 | 448 | 12 | 0 | 68 | 45 |
| 10 | 397 | 177 | 2 | 478 | 0 | 25 | 410 | 2 | 0 | 0 | 71 |
| 11 | 489 | 136 | 1 | 582 | 0 | 26 | 384 | 2 | 0 | 0 | 99 |
| 12 | 452 | 132 | 2 | 395 | 0 | 27 | 195 | 3 | 1 | 0 | 157 |
| 13 | 423 | 151 | 1 | 189 | 1 | 28 | 46 | 2 | 1 | 0 | 155 |
| 14 | 406 | 209 | 2 | 423 | 0 | 29 | 33 | 1 | 0 | 33 | 105 |
| 15 | 195 | 271 | 1 | 478 | 1 | 30 | 56 | 1 | 0 | 42 | 155 |
| | | | | | | 31 | 80 | ------ | 2 | 35 | ------ |

NOTE.—No record Oct. 1 to May 7.

*Monthly discharge of Blackfoot River near Blackfoot, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 540 | 33 | 320 | 15,200 |
| June | 271 | 1 | 94.5 | 5,620 |
| July | 17 | 0 | 2.13 | 131 |
| August | 582 | 0 | 250 | 15,400 |
| September | 157 | 0 | 34.2 | 2,040 |
| The period | ------ | ------ | ------ | 38,400 |

### MUD LAKE NEAR TERRETON, IDAHO

LOCATION.—Two gages used. One in NW. ¼ sec. 3, T. 6 N., R. 35 E., at the C. O. Magill ranch, in backwater of Camas Creek, 6 miles northeast of Terreton, Jefferson County, 7 miles southwest of Hamer, and 15 miles northwest of Roberts; and the other at Owsley Canal Co.'s pump house, 5½ miles southwest of Magill ranch gage.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 4, 1921, to September 30, 1926.

GAGE.—Magill ranch gage, a vertical staff on bridge pier near left bank of Camas Creek; read by C. O. Magill. Owsley Canal Co.'s gage, a vertical staff on west wing wall of Owsley Canal Co.'s pump-house intake; read by John Walker and J. L. Hutton. Prior to October 4, 1925, first Owsley gage was located on left bank of intake canal, 500 feet above pump house. Elevation of zero of gages is 4,775.33 feet above mean sea level.

EXTREMES OF CONTENTS.—Maximum stage recorded during year, 8.90 feet April 27 (contents, 57,700 acre-feet; minimum stage as determined by graphical comparison of readings on two gages, 2.14 feet September 21–27 (contents, 8,620 acre-feet).

1921–1926: Maximum stage recorded, 9.20 feet May 5, 1923 (contents, 61,660 acre-feet); minimum stage, that of September 21–27, 1926.

ICE.—Complete ice cover during winter.

DIVERSIONS.—Considerable water diverted from tributaries to Mud Lake and from diversions by pumping and gravity from the lake during irrigation season.

REGULATION.—None except as the supply in the lake is affected by pumping operations.

COOPERATION.—Gage heights from gage at Owsley Canal Co.'s pump house furnished by Owsley Canal Co.

*Daily contents, in acre-feet, of Mud Lake near Terreton, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15,700 | 23,400 | 30,400 | 36,400 | 41,000 | 45,200 | 53,600 | 57,000 | 40,000 | 23,300 | 13,700 | 9,580 |
| 2 | 15,800 | 23,600 | 30,600 | 36,600 | 41,100 | 45,300 | 53,800 | 56,900 | 39,200 | 23,000 | 13,400 | 9,510 |
| 3 | 15,900 | 23,800 | 30,800 | 36,800 | 41,300 | 45,500 | 54,200 | 56,700 | 38,500 | 22,700 | 13,200 | 9,440 |
| 4 | 16,100 | 24,100 | 31,100 | 36,900 | 41,500 | 45,700 | 54,300 | 56,400 | 37,900 | 22,400 | 12,800 | 9,340 |
| 5 | 16,200 | 24,300 | 31,200 | 37,000 | 41,600 | 46,000 | 54,300 | 56,000 | 37,300 | 22,200 | 12,700 | 9,260 |
| 6 | 16,400 | 24,600 | 31,500 | 37,200 | 41,700 | 46,200 | 54,300 | 55,700 | 36,600 | 22,100 | 12,500 | 9,200 |
| 7 | 16,600 | 24,900 | 31,600 | 37,400 | 41,800 | 46,300 | 54,600 | 55,300 | 36,000 | 21,900 | 12,200 | 9,130 |
| 8 | 16,800 | 25,200 | 31,900 | 37,500 | 42,000 | 46,500 | 54,800 | 54,800 | 35,300 | 21,700 | 12,100 | 9,060 |
| 9 | 17,000 | 25,600 | 32,200 | 37,600 | 42,100 | 46,900 | 55,000 | 54,300 | 34,600 | 21,500 | 11,900 | 8,990 |
| 10 | 17,200 | 25,800 | 32,400 | 37,800 | 42,200 | 47,100 | 55,400 | 53,800 | 33,900 | 21,200 | 11,700 | 8,920 |
| 11 | 17,500 | 26,100 | 32,600 | 37,900 | 42,300 | 47,200 | 55,800 | 53,300 | 33,200 | 21,000 | 11,600 | 8,890 |
| 12 | 17,800 | 26,400 | 32,900 | 38,100 | 42,400 | 47,500 | 55,900 | 53,000 | 32,500 | 20,700 | 11,400 | 8,820 |
| 13 | 18,100 | 26,600 | 33,000 | 38,100 | 42,500 | 47,700 | 56,000 | 52,500 | 31,900 | 20,400 | 11,300 | 8,790 |
| 14 | 18,400 | 26,800 | 33,300 | 38,300 | 42,600 | 47,900 | 56,200 | 52,000 | 31,100 | 20,100 | 11,200 | 8,750 |
| 15 | 18,800 | 27,000 | 33,400 | 38,500 | 42,700 | 48,200 | 56,300 | 51,400 | 30,400 | 19,800 | 11,100 | 8,720 |
| 16 | 19,200 | 27,300 | 33,600 | 38,700 | 43,000 | 48,500 | 56,400 | 50,800 | 29,800 | 19,500 | 11,000 | 8,690 |
| 17 | 19,500 | 27,500 | 33,900 | 38,800 | 43,100 | 48,900 | 56,700 | 50,300 | 29,400 | 19,200 | 10,900 | 8,690 |
| 18 | 19,800 | 27,800 | 34,000 | 38,900 | 43,200 | 49,400 | 56,800 | 49,700 | 28,800 | 18,900 | 10,900 | 8,660 |
| 19 | 20,100 | 28,000 | 34,200 | 39,100 | 43,400 | 49,800 | 56,900 | 49,100 | 28,300 | 18,500 | 10,800 | 8,660 |
| 20 | 20,400 | 28,100 | 34,400 | 39,300 | 43,600 | 50,300 | 57,000 | 48,600 | 27,900 | 18,100 | 10,700 | 8,660 |
| 21 | 20,600 | 28,300 | 34,600 | 39,400 | 43,800 | 50,700 | 57,000 | 48,100 | 27,500 | 17,800 | 10,600 | 8,620 |
| 22 | 20,800 | 28,600 | 34,700 | 39,600 | 43,900 | 51,200 | 57,200 | 47,500 | 27,000 | 17,300 | 10,500 | 8,620 |
| 23 | 21,100 | 28,700 | 34,900 | 39,800 | 44,000 | 51,600 | 57,300 | 46,800 | 26,600 | 16,900 | 10,500 | 8,620 |
| 24 | 21,400 | 28,900 | 35,100 | 39,900 | 44,200 | 51,900 | 57,400 | 46,100 | 26,200 | 16,600 | 10,400 | 8,620 |
| 25 | 21,600 | 29,100 | 35,300 | 40,000 | 44,300 | 52,100 | 57,400 | 45,400 | 25,800 | 16,200 | 10,300 | 8,620 |
| 26 | 21,800 | 29,400 | 35,300 | 40,100 | 44,500 | 52,400 | 57,500 | 44,700 | 25,200 | 15,700 | 10,200 | 8,620 |
| 27 | 22,100 | 29,500 | 35,600 | 40,300 | 44,700 | 52,600 | 57,700 | 43,700 | 24,700 | 15,300 | 10,100 | 8,620 |
| 28 | 22,300 | 29,700 | 35,800 | 40,400 | 44,900 | 52,700 | 57,400 | 42,900 | 24,200 | 14,900 | 10,000 | 8,660 |
| 29 | 22,600 | 30,000 | 36,000 | 40,600 | ------- | 53,000 | 57,300 | 42,100 | 23,900 | 14,500 | 9,910 | 8,660 |
| 30 | 22,800 | 30,200 | 36,000 | 40,800 | ------- | 53,200 | 57,200 | 41,300 | 23,600 | 14,200 | 9,800 | 8,660 |
| 31 | 23,100 | ------- | 36,200 | 40,900 | ------- | 53,300 | ------- | 40,700 | ------- | 14,000 | 9,690 | ------ |

NOTE.—Daily contents record determined from gage-height graph based on readings obtained from gages at Magill ranch and at Owsley Canal Co.'s pump house.

### CAMAS CREEK NEAR DUBOIS, IDAHO

LOCATION.—In NE. ¼ SE. ¼ sec. 13, T. 11 N., R. 38 E., 2 miles north of Lone Tree Reservoir, 2 miles downstream from 18-mile shearing corral, 5½ miles south of Idmon, and 19 miles northeast of Dubois, Clark County. Station is 26 miles north (upstream) of gage on Camas Creek near Camas.

DRAINAGE AREA.—216 square miles (measured on United States Geological Survey map of Mud Lake Basin).

RECORDS AVAILABLE.—April 11, 1921, to September 13, 1926.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by Geological Survey engineers.

DISCHARGE MEASUREMENTS.—Made from wagon bridge 2 miles above gage or by wading 700 feet above gage.

CHANNEL AND CONTROL.—Bed composed of lava boulders and gravel; practically permanent. Banks fairly high and brushy; right bank subject to overflow. Control well defined.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.27 feet at 6.30 a. m. April 13 (discharge, 760 second-feet); minimum stage, 0.67 foot from 8 p. m. August 2 to 2 a. m. August 3 (discharge, 7.8 second-feet).

1921–1926: Maximum stage recorded, 5.75 feet May 21, 1922 (discharge, 1,550 second-feet); minimum discharge, that of August 2–3, 1926.

ICE.—Stage-discharge relation seriously affected by ice; records discontinued during winter.

DIVERSIONS.—Two stock watering ditches of the Wood Live Stock Co. are the principal diversions above station. In addition, a number of small irrigation ditches divert water from tributaries above.

REGULATION:—Some water stored in Frazier Reservoir on West Camas Creek, which has a capacity of 2,000 to 3,000 acre-feet, and released during low-water period for use above gaging-station.

ACCURACY.—Stage-discharge relation changed during winter. Two rating curves used during year; one from October 1–18 is well defined between 25 and 900 second-feet; the other from April 7 to September 13 is well defined below 200 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph except as noted on footnote to table of daily discharge. Records excellent except for May, which are good; estimated periods, poor.

*Discharge measurements of Camas Creek near Dubois, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 1 | 1.37 | 50.3 | Apr. 25 | 2.20 | 156 | July 29 | 0.78 | 11.6 |
| Mar. 19 | | [a] 25.0 | May 20 | 1.28 | 45.9 | Sept. 13 | .81 | 12.6 |
| Apr. 1 | | [a] 25.0 | June 21 | 1.03 | 24.8 | | | |
| Apr. 24 | 2.32 | 179 | June 30 | .94 | 18.8 | | | |

[a] Stage-discharge relation affected by ice; discharge estimated.

*Daily discharge, in second-feet, of Camas Creek near Dubois, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | 49 | | 25 | 128 | | 21 | 11 | |
| 2 | 47 | | | 131 | | 29 | 8.6 | 12 |
| 3 | 46 | | | 125 | | 24 | 9.0 | |
| 4 | 37 | | | 117 | | 22 | 10 | |
| 5 | 45 | | | 117 | 15 | 22 | 10 | |
| 6 | 53 | | | 172 | | 19 | 9.7 | |
| 7 | 58 | | 223 | 180 | | 19 | 10 | |
| 8 | 48 | | 336 | 139 | | 19 | 12 | |
| 9 | 54 | | 336 | 126 | | 19 | 15 | 13 |
| 10 | 64 | | 361 | 117 | | 19 | 15 | |
| 11 | 62 | | 402 | 97 | | 17 | 16 | |
| 12 | 52 | | 448 | 81 | | 16 | 17 | |
| 13 | 49 | | 514 | 74 | | 16 | 16 | 13 |
| 14 | 49 | | 497 | 65 | | 15 | 15 | |
| 15 | 48 | | 388 | 50 | 20 | 16 | 15 | |
| 16 | 47 | | 316 | 47 | | 19 | 14 | |
| 17 | 47 | | 285 | 55 | | 17 | 15 | |
| 18 | 47 | | 261 | 47 | | 16 | 16 | |
| 19 | | 25 | 252 | 38 | | 15 | 15 | |
| 20 | | | 256 | 40 | | 15 | 16 | |
| 21 | | | 239 | 38 | 26 | 14 | 15 | |
| 22 | | | 221 | 35 | 30 | 13 | 14 | |
| 23 | | | 207 | 28 | 26 | 12 | 14 | |
| 24 | | | 178 | 26 | 23 | 12 | 13 | |
| 25 | | | 158 | | 24 | 11 | 11 | |
| 26 | | | 153 | | 22 | 11 | 11 | |
| 27 | | | 144 | 18 | 21 | 11 | 12 | |
| 28 | | | 134 | | 20 | 10 | | |
| 29 | | | 126 | | 18 | 11 | 12 | |
| 30 | | | 122 | | 19 | 11 | | |
| 31 | | | | | | 10 | | |

NOTE.—Discharge estimated because of clogged inlet trench to gage, May 25 to June 20 and because of missing gage heights Aug. 28–31 and Sept. 1–12. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Camas Creek near Dubois, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October 1–18 | 64 | 37 | 50.1 | 1,790 |
| April 7–30 | 514 | 122 | 273 | 13,000 |
| May | 180 | | 70.9 | 4,360 |
| June | | | 19.3 | 1,150 |
| July | 29 | 10 | 16.2 | 996 |
| August | 17 | 8.6 | 13.0 | 799 |
| September 1–13 | | | 12.7 | 327 |

### CAMAS CREEK NEAR CAMAS, IDAHO

LOCATION.—In NE. ¼ sec. 34, T. 9 N., R. 36 E., Clark County, a quarter of a mile south of C. J. Thompson ranch, 1 mile east of Oregon Short Line Railroad, and 5 miles northeast of Camas, Jefferson County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 1, 1921, to September 30, 1926, when station was discontinued.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by William McCall and Geological Survey engineers.

DISCHARGE MEASUREMENTS.—Made from wagon bridge 500 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of lava covered in places by gravel. Banks high; one channel at all stages. Control formed by lava boulders; well defined.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 2.14 feet at 2 a. m. March 19 (discharge, 147 second-feet); a higher stage may have occurred prior to March 18 when recorder was not operating. Minimum stage recorded, −0.17 foot sometime between May 29 and June 20 from recorder graph when clock was not running (discharge, 2.6 second-feet).

1921–1926: Maximum stage recorded, 4.82 feet at 9.30 a. m. May 22, 1922 (discharge, 645 second-feet); minimum discharge, 2.6 second-feet from 10 p. m. July 5 to 2 a. m. July 6, 1924, and during 1926.

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—A number of irrigation and stock water diversions above station.

REGULATION.—Flow past station affected to some extent by losses through lava crevices in Lone Tree Reservoir, 24 miles upstream. Gates in dam not regulated during year.

ACCURACY.—Stage-discharge relation changed during ice-affected period. Two well-defined rating curves used; one from October 1 to November 8 and the other after March 18. Operation of water-stage recorder satisfactory except for periods when observer failed to visit gage regularly. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspecting recorder graph, except as noted in footnote to table of daily discharge. Records good except for estimated periods, for which they are poor.

COOPERATION.—Gage-height record furnished by Camas Mutual Irrigation District.

*Discharge measurements of Camas Creek near Camas, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 2 | 1.03 | 35.4 | Apr. 25 | 1.61 | 84 | July 1 | 0.44 | 11.4 |
| Mar. 18 | 1.64 | 88 | May 20 | .95 | 32.6 | July 28 | .31 | 8.9 |
| Mar. 31 | 1.45 | 67 | June 20 | .58 | 15.2 | Sept. 16 | .19 | 5.8 |
| Apr. 3 | 1.22 | 49.0 | | | | | | |

*Daily discharge, in second-feet, of Camas Creek near Camas, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 33 | | | | | | 50 | 66 | | 11 | 7.9 | |
| 2 | 36 | | | | | | 54 | 62 | | 12 | 7.7 | |
| 3 | 34 | | | | | | 55 | 44 | | 13 | 8.5 | |
| 4 | 34 | | | | | | 50 | 39 | | 14 | 7.7 | |
| 5 | 33 | 30 | | | | | 48 | | | 13 | | |
| | | | | | 30 | 25 | | | 5 | | | |
| 6 | 30 | | | | | | 52 | 35 | | 12 | | |
| 7 | 29 | | | | | | 63 | | | 14 | 8 | |
| 8 | 31 | 28 | | 15 | | | 74 | | | 15 | | 8 |
| 9 | 40 | | | | | | 86 | 45 | | 14 | | |
| 10 | 43 | | | | | | 92 | 45 | | 13 | | |
| 11 | | | | | | | 97 | 45 | | | | |
| 12 | | | | | | 50 | 100 | 39 | | | | |
| 13 | | | 20 | | | | | 19 | | | | |
| 14 | 43 | | | | | | | 22 | | | 12 | |
| 15 | | | | | | | | 19 | | | | |
| | | | | | | 125 | 105 | | 10 | 12 | | |
| 16 | | | | | | | | 23 | | | | 6.0 |
| 17 | | | | | | | | 32 | | | | 6.2 |
| 18 | 42 | | | | | 97 | | 36 | | | | 6.3 |
| 19 | 39 | 25 | | | | 103 | | 34 | | | | 6.2 |
| 20 | 40 | | | | 20 | 87 | | 31 | 15 | | 10 | |
| 21 | 38 | | | | | 73 | 90 | 24 | 15 | | | |
| 22 | 38 | | | | | 77 | | 16 | 14 | | 10 | |
| 23 | 37 | | | | | 77 | | 12 | 17 | | 10 | |
| 24 | 36 | | | 20 | | 75 | | 12 | 17 | | 9.8 | |
| 25 | 35 | | | | | 72 | 84 | 11 | 15 | 10 | 9.8 | |
| 26 | 33 | | | | | | 83 | 9.6 | 14 | | 9.4 | |
| 27 | 33 | | | | | | 78 | 7.9 | 14 | | 9.0 | |
| 28 | | | 15 | | | 70 | 71 | 6.2 | 13 | 8.3 | 8.3 | |
| 29 | 30 | | | | | | 69 | 5.1 | 13 | 8.1 | 8.5 | |
| 30 | | | | | | | 71 | 5 | 12 | 7.7 | 8.5 | |
| 31 | | | | | | 68 | ------ | | ------ | 8.1 | 8.3 | |

NOTE.—Discharge estimated on account of missing gage heights, Oct. 11–17, 28–31, Nov. 1–7, 9–30, Dec. 1–31, Jan. 1–31, Feb. 1–28, Mar. 1–17, 27–30, Apr. 13–24, May 5–8, 30, 31, June 1–19, July 11–27, Aug. 5–21, Sept. 1–15, 20–30. Discharge estimated on account of ice Mar. 26; based on weather records and comparison with other stations in same drainage basin. Discharge interpolated Oct. 1, May 19, June 30. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Camas Creek near Camas, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | | | 36.6 | 2,250 |
| November | | | 26.3 | 1,560 |
| December | | | 19.0 | 1,170 |
| January | | | 17.6 | 1,080 |
| February | | | 23.6 | 1,310 |
| March | | | 63.8 | 3,920 |
| April | | 48 | 81.6 | 4,860 |
| May | 66 | | 27.6 | 1,700 |
| June | 17 | | 10.0 | 595 |
| July | 15 | 7.7 | 11.4 | 701 |
| August | | | 9.53 | 586 |
| September | | | 7.02 | 418 |
| The year | | | 27.8 | 20,200 |

### CAMAS CREEK AT CAMAS, IDAHO

LOCATION.—In E. ½ SE. ¼ sec. 21, T. 8 N., R. 36 E., half a mile above mouth of Beaver Creek, 350 feet above bridge of Oregon Short Line Railroad at Camas, Jefferson County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 13, 1925, to September 30, 1926.

GAGE.—Vertical staff on right bank; read by William McCall.

DISCHARGE MEASUREMENTS.—Made from wagon bridge 300 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of fine gravel and sand. Banks low; several channels at high stages. Control not well defined; subject to growth of aquatic plants.

EXTREMES OF DISCHARGE.—Maximum discharge recorded during year, 122 second-feet March 20; a higher discharge occurred a few days prior to this date. Channel reported dry early in June.

1925–1926: Maximum stage recorded, 1.53 feet April 23, 1925 (discharge, 134 second-feet); minimum discharge, that of 1926. A higher discharge may have occurred during period of no record.

DIVERSIONS.—A number of irrigation and stock-water diversions above station.

REGULATION.—Flow past station affected to some extent by losses through lava crevices in Lone Tree Reservoir, 29 miles upstream. Gates in dam not changed during year.

ACCURACY.—Stage-discharge relation changed slightly owing to moss growth. Rating table well defined below 140 second-feet. Gage read to hundredths once daily. Daily discharge obtained by applying daily gage height to rating table except as indicated in footnote to table of daily discharge. Records good except for estimated periods, for which they are poor.

COOPERATION.—Gage-height record furnished by Camas Mutual Irrigation District.

*Discharge measurements of Camas Creek at Camas, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 2 | 0.63 | 28.4 | Apr. 25 | 1.09 | 79 | July 28 | 0.29 | 6.1 |
| Mar. 20 | 1.40 | 122 | May 21 | .47 | 16.3 | Sept. 16 | .14 | 2.1 |
| Mar. 31 | .91 | 57 | June 20 | .26 | 4.0 | | | |
| Apr. 3 | .92 | 60 | July 1 | .35 | 9.0 | | | |

*Daily discharge, in second-feet, of Camas Creek at Camas, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | 26 | | 61 | 54 | | 9.0 | 5.1 | 6.5 |
| 2 | 29 | | 56 | 52 | | 9.2 | 4.8 | 6.2 |
| 3 | 28 | | 61 | 49 | | 9.3 | 4.8 | 6.2 |
| 4 | 26 | | 52 | 28 | 0 | 9.5 | 4.4 | 6.5 |
| 5 | 28 | | 43 | 31 | | 8.5 | 4.0 | 6.5 |
| 6 | 26 | | 41 | 30 | | 7.5 | 3.7 | 6.2 |
| 7 | 23 | | 54 | 28 | | 6.5 | 4.4 | 6.2 |
| 8 | 23 | | 63 | 26 | | 7.5 | 4.4 | 5.8 |
| 9 | 26 | | 66 | 30 | | 7.0 | 5.1 | 3.0 |
| 10 | 36 | | 84 | 35 | 2 | 6.5 | 5.1 | 2.7 |
| 11 | | | 93 | 35 | | 6.5 | 6.5 | 2.7 |
| 12 | | | 94 | 33 | | 5.8 | 7.5 | 2.7 |
| 13 | | | 97 | 18 | | 7.5 | 7.5 | 2.4 |
| 14 | | | 100 | 10 | | 8.5 | 11 | 2.2 |
| 15 | | | 101 | 9.5 | | 10 | 10 | .5 |
| 16 | | | 100 | 12 | 4 | 9.8 | 8.5 | 2.0 |
| 17 | | | 97 | 17 | | 9.5 | 8.5 | 2.0 |
| 18 | | | 94 | 20 | | 9.5 | 6.5 | 2.0 |
| 19 | | | 94 | 17 | | 9.5 | 5.8 | 2.0 |
| 20 | | 122 | 86 | 20 | 4.0 | 9.5 | 4.4 | 2.0 |

*Daily discharge, in second-feet, of Camas Creek at Camas, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Mar. | Apr. | May | June | July | Aug | Sept. |
|---|---|---|---|---|---|---|---|---|
| 21 | | 87 | 86 | 16 | | 6.5 | 4.4 | 2.0 |
| 22 | | 52 | 84 | 12 | | 5.8 | 4.4 | 2.0 |
| 23 | | 54 | 84 | 8.9 | | 5.8 | 4.8 | 1.9 |
| 24 | | 58 | 81 | 5.8 | | 8.5 | 5.4 | 2.0 |
| 25 | | 66 | 80 | 6.2 | 10 | 8.5 | 6.2 | 2.0 |
| 26 | | | 77 | 5.6 | | 7.5 | 7.0 | 2.0 |
| 27 | | | 71 | 5.1 | | 7.0 | 7.0 | 2.4 |
| 28 | | 60 | 66 | 4.4 | | 6.5 | 6.5 | 2.4 |
| 29 | | | 63 | 3.7 | | 6.5 | 6.5 | 3.0 |
| 30 | | | 63 | | | 6.5 | 6.5 | 6.2 |
| 31 | | 60 | | 2 | | 5.8 | 6.2 | |

NOTE.—Discharge estimated because of ice effect Mar. 29 and 30 and because of missing gage heights Mar. 26–28, May 30 to June 19, 21–30, and Sept. 15. Discharge interpolated Oct. 1, 3, Mar. 21, Apr. 4, May 23, 26, July 2, 3, 6, 9, 16, 27, Aug. 25, and Sept. 21.

*Monthly discharge of Camas Creek at Camas, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October 1–10 | 36 | 23 | 27.1 | 538 |
| March 20–31 | 122 | | 66.6 | 1,590 |
| April | 101 | 41 | 76.4 | 4,550 |
| May | 54 | | 20.2 | 1,240 |
| June | | | 4.67 | 278 |
| July | 10 | 5.8 | 7.79 | 479 |
| August | 11 | 3.7 | 6.03 | 371 |
| September | 6.5 | | 3.41 | 203 |

### BEAVER CREEK AT DUBOIS, IDAHO

LOCATION.—In NW. ¼ sec. 21, T. 10 N., R. 36 E., at Ed F. Palmer ranch, half a mile north of Dubois, Clark County. This stream locally known as Dry Creek.

DRAINAGE AREA.—220 square miles (measured on United States Geological Survey map of Mud Lake drainage basin).

RECORDS AVAILABLE.—April 15, 1921, to September 30, 1926.

GAGE.—Vertical staff attached to cottonwood tree on left bank, 25 feet below site of former wagon bridge; read by W. L. Miller.

DISCHARGE MEASUREMENTS.—Made from highway bridge at Dubois or by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock and gravel. Control fairly well defined but occasionally affected by drift. Banks steep and brushy; one channel at all stages.

EXTREMES OF DISCHARGE.—Maximum discharge, estimated 375 second-feet on March 17; minimum discharge less than 0.5 second-foot July 29 to August 7.

1921–1926: Maximum stage, from high-water marks on bank, about 6.50 feet during ice jam on March 16, 1926. Maximum discharge, 637 second-feet May 20, 1922 (gage height, 4.9 feet); stream reported dry August 3 to about November 30, 1924.

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—A few small diversions several miles upstream. After high water practically entire flow is diverted below gage for irrigation.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Rating curve well defined below 80 second-feet and fairly well defined above. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table; shifting-control method used June 17–22. Records fair except those for March, May, and June, which are poor.

*Discharge measurements of Beaver Creek at Dubois, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 2 | 1.06 | 26.1 | Mar. 31 | 1.00 | 29.9 | June 20 | 0.50 | 6.7 |
| Oct. 3 | 1.00 | 23.0 | Apr. 3 | 1.01 | 30.9 | June 30 | .14 | 1.3 |
| Mar. 18 | 4.55 | 302 | Apr. 24 | 1.37 | 56 | July 29 | −.02 | [b] 5 |
| Mar. 20 | 2.70 | 217 | May 21 | 1.13 | [a] 18.9 | Sept. 15 | .18 | 1.6 |

[a] Accuracy doubtful. [b] Estimated.

*Daily discharge, in second-feet, of Beaver Creek at Dubois, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | | | 32 | 43 | 11 | 4 | | |
| 2 | 26 | | 26 | 36 | 11 | 9 | | 1 |
| 3 | 23 | | 32 | 32 | 10 | 7 | | |
| 4 | | | 35 | 31 | 9 | 11 | 0 | |
| 5 | | 5 | 44 | 36 | 8 | 7 | | 2 |
| 6 | | | 152 | 86 | 7 | 7 | | 2 |
| 7 | | | 120 | 53 | 7 | 7 | | 2 |
| 8 | | | 152 | 43 | 6 | 9 | 1 | 3 |
| 9 | | | 108 | 57 | 6 | 9 | 2 | 2 |
| 10 | | | 120 | 46 | 6 | 7 | 2 | 2 |
| 11 | | | 92 | 35 | 6 | 6 | 2 | 2 |
| 12 | | 25 | 67 | 30 | 5 | 5 | 2 | 1 |
| 13 | | | 86 | 30 | 6 | 5 | 3 | 1 |
| 14 | | 175 | 76 | 36 | 7 | 5 | 3 | 1 |
| 15 | | | 67 | 43 | 7 | 4 | 2 | 2 |
| 16 | | 250 | 67 | 43 | 8 | 4 | 2 | |
| 17 | | 350 | 76 | 42 | 5 | 3 | 1 | |
| 18 | | 300 | 76 | 44 | 4 | 3 | 1 | |
| 19 | | 250 | 86 | 42 | 4 | 2 | 3 | |
| 20 | | 216 | 86 | 37 | 7 | 2 | 5 | |
| 21 | | 186 | 86 | 38 | 6 | 2 | 3 | |
| 22 | | 179 | 81 | 36 | 5 | 1 | 2 | |
| 23 | | 261 | 67 | 35 | 3 | 2 | 2 | 2 |
| 24 | | 216 | 56 | 34 | 3 | 1 | 1 | |
| 25 | | 86 | 50 | 34 | 2 | 1 | | |
| 26 | | 39 | 50 | 33 | 2 | 1 | | |
| 27 | | 36 | 49 | 30 | 1 | 2 | | |
| 28 | | 39 | 43 | 25 | 1 | 1 | 1 | |
| 29 | | 36 | 42 | 22 | 1 | 0 | | |
| 30 | | 39 | 37 | 20 | 1 | 0 | | |
| 31 | | 32 | | 16 | | | | |

NOTE.—Discharge estimated Mar. 1–16, July 30 to Aug. 7, Aug. 25 to Sept. 4, Sept. 16–30, based on observer's notes and weather records, and Mar. 17–19, based on flow at bridge three-fourths mile below gage where an open-channel rating was temporarily established. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Beaver Creek at Dubois, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| March | | | 96.5 | 5,930 |
| April | 152 | 26 | 72.0 | 4,280 |
| May | 57 | 16 | 37.7 | 2,320 |
| June | 11 | 1 | 5.5 | 330 |
| July | 11 | | 4.1 | 250 |
| August | 5 | | 1.4 | 86 |
| September | | | 1.8 | 110 |
| The period | | | | 13,300 |

### BEAVER CREEK AT CAMAS, IDAHO

LOCATION.—In NE. ¼ sec. 21, T. 8 N., R. 36 E., three-eighths mile above confluence with Camas Creek and one-fourth mile northwest of Oregon Short Line Railroad depot at Camas, Jefferson County. Locally this stream is known as Dry Creek.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 25, 1921, to September 30, 1926.

GAGE.—Vertical staff attached to highway bridge on right bank; read by William McCall.

DISCHARGE MEASUREMENTS.—Made from highway bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel. Control is a fairly well defined gravel riffle located about 250 feet below gage; fairly permanent. Banks may be overflowed at extremely high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.8 feet March 18 and 19 (discharge, 153 second-feet). Stream reported dry prior to March 14 and after April 22.

1921–1926: Maximum discharge, 153 second-feet, June 1, 1921, and March 18 and 19, 1926. No flow past station except during spring of each year.

ICE.—Channel is dry during winter.

DIVERSION.—After high water entire flow is diverted for irrigation near Dubois, 14 miles upstream.

REGULATION.—None, except as flow is affected by irrigation diversions above.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table. Records good.

COOPERATION.—Gage-height record furnished by Camas Mutual Irrigation District.

*Discharge measurements of Beaver Creek at Camas, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 17 | 2.64 | 134 | Mar. 31 | 1.39 | 29.2 |
| Mar. 20 | 2.57 | 133 | Apr. 3 | 1.19 | 15.4 |

*Daily discharge, in second-feet, of Beaver Creek at Camas, Idaho, for the year ending September 30, 1926*

| Day | Mar. | Apr. | Day | Mar. | Apr. | Day | Mar. | Apr. |
|---|---|---|---|---|---|---|---|---|
| 1 | | 6 | 11 | | 70 | 21 | 123 | 11 |
| 2 | | 7 | 12 | 0 | 58 | 22 | 113 | 5 |
| 3 | | 16 | 13 | | 51 | 23 | 123 | |
| 4 | | 20 | 14 | 8 | 44 | 24 | 133 | |
| 5 | | 23 | 15 | 68 | 35 | 25 | 75 | |
| | 0 | | | | | | | |
| 6 | | 59 | 16 | 86 | 26 | 26 | 60 | |
| 7 | | 95 | 17 | 143 | 18 | 27 | 44 | |
| 8 | | 86 | 18 | 153 | 18 | 28 | 37 | |
| 9 | | 84 | 19 | 153 | 18 | 29 | 30 | |
| 10 | | 82 | 20 | 133 | 18 | 30 | 23 | |
| | | | | | | 31 | 28 | |

NOTE.—Discharge estimated Mar. 14 and Apr. 22 because of missing gage height. Interpolated Mar. 21, 23, 26, 28, 29, Apr. 4, 6, 9, 11, 13, 16, and 18.

*Monthly discharge of Beaver Creek at Camas, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| March | 153 | 0 | 49.5 | 3,040 |
| April | 95 | 0 | 28.3 | 1,680 |
| The year | | | | 4,720 |

### LITTLE LOST RIVER NEAR HOWE, IDAHO

LOCATION.—In SE. ¼ sec. 3, T. 6 N., R. 28 E., a quarter of a mile above diversion dam of Blaine County Investment Co., 6 miles from Berenice, and 7 miles northwest of Howe, Butte County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 27, 1921, to September 30, 1926.

GAGE.—Vertical staff on left bank; read by Nephi W. Hansen.

DISCHARGE MEASUREMENTS.—Made by wading below gage.

CHANNEL AND CONTROL.—Bed composed of cobbles and gravel; subject to cutting by swift velocity. One channel at all stages. Banks fairly high. No well-defined control.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 1.25 feet April 23 (discharge, 114 second-feet); minimum stage, 0.49 foot April 2 (discharge, 29 second-feet).

1921–1926: Maximum stage recorded, 1.64 feet June 14, 1923 (discharge, 176 second-feet); minimum stage, 0.23 foot April 15 and 20, 1923 (discharge, 13 second-feet).

ICE.—Observations discontinued during winter.

DIVERSIONS.—Numerous irrigation diversions above and below station.

REGULATION.—Water stored in small reservoir of Blaine County Investment Co. on Dry Creek, about 40 miles upstream, is released during irrigation season and carried through Corral and Wet Creeks to Little Lost River and diverted into the company's main canal one-fourth mile below gage.

ACCURACY.—Stage-discharge relation not permanent. Two rating curves, well-defined between 25 and 150 second-feet, used during year; one from October 1 to May 31, and the other from June 1 to September 7. Gage read once daily to hundredths. Daily discharge determined by applying daily gage height to rating table; shifting-control method used September 8–30. Records good except for estimated periods, for which they are fair.

COOPERATION.—Gage-height record furnished by water master for Little Lost River.

*Discharge measurements of Little Lost River near Howe, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 6 | 1.00 | 80 | Apr. 23 | 1.25 | 112 | July 3 | 0.90 | 68 |
| Mar. 16 | .53 | 32.7 | May 5 | 1.12 | 95 | Sept. 19 | .82 | 57 |
| Apr. 5 | .49 | 28.1 | May 18 | .98 | 79 | | | |
| Apr. 5 | .50 | 29.7 | June 4 | 1.02 | 82 | | | |

*Daily discharge, in second-feet, of Little Lost River near Howe, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | 78 | | 31 | 108 | 89 | 83 | 48 | 52 |
| 2 | 73 | | 29 | 102 | 83 | 69 | 48 | 53 |
| 3 | 71 | | 30 | 102 | 89 | 67 | 50 | 52 |
| 4 | 71 | | 30 | 98 | 82 | 64 | 50 | 52 |
| 5 | 71 | | 30 | 95 | 79 | 64 | 47 | 57 |
| 6 | 81 | | 67 | 83 | 79 | 63 | 48 | 55 |
| 7 | 81 | | 70 | 95 | 79 | 62 | 49 | 56 |
| 8 | 79 | | 75 | 89 | 78 | 64 | 50 | 55 |
| 9 | 78 | | 75 | 89 | 83 | 66 | 51 | 54 |
| 10 | 77 | | 72 | 89 | 82 | 68 | 50 | 52 |
| 11 | 81 | | 75 | 83 | 79 | 63 | 53 | 51 |
| 12 | 83 | | 72 | 81 | 78 | 61 | 57 | 52 |
| 13 | 83 | | 73 | 78 | 75 | 66 | 55 | 55 |
| 14 | 81 | | 76 | 79 | 71 | 68 | 53 | 55 |
| 15 | 79 | | 75 | 78 | 73 | 63 | 51 | 55 |
| 16 | 79 | 32 | 73 | 78 | 79 | 62 | 51 | 55 |
| 17 | 79 | | 95 | 77 | 81 | 59 | 50 | 55 |
| 18 | 78 | | 102 | 78 | 72 | 61 | 51 | 53 |
| 19 | 78 | | 102 | 77 | 73 | 62 | 55 | 56 |
| 20 | 78 | | 95 | 76 | 72 | 53 | 54 | 56 |
| 21 | 77 | 34 | 108 | 89 | 68 | 53 | 51 | 56 |
| 22 | 77 | | 108 | 89 | 70 | 50 | 50 | 52 |
| 23 | 77 | | 114 | 83 | 68 | 52 | 50 | 53 |
| 24 | 77 | | 108 | 83 | 64 | 51 | 50 | 54 |
| 25 | 73 | | 108 | 95 | 66 | 51 | 50 | 55 |
| 26 | 73 | 35 | 102 | 102 | 66 | 50 | 50 | 56 |
| 27 | 77 | | 102 | 95 | 62 | 49 | 50 | 57 |
| 28 | 73 | | 108 | 89 | 62 | 48 | 50 | 56 |
| 29 | 73 | 34 | 102 | 76 | 63 | 48 | 49 | 55 |
| 30 | 73 | | 102 | 89 | 63 | 49 | 48 | 56 |
| 31 | 73 | | | 89 | | 49 | 51 | |

NOTE.—Discharge estimated because of missing gage heights Mar. 17–25, 27–31; interpolated Oct. 22, May 4, and Aug. 25. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Little Lost River near Howe, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 83 | 71 | 76.8 | 4,720 |
| March 16–31 | | | 33.9 | 1,080 |
| April | 114 | 29 | 80.3 | 4,780 |
| May | 108 | 76 | 87.5 | 5,380 |
| June | 89 | 62 | 74.3 | 4,420 |
| July | 83 | 48 | 59.3 | 3,650 |
| August | 57 | 47 | 50.6 | 3,110 |
| September | 57 | 51 | 54.4 | 3,240 |

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

LOCATION.—In SW. ¼ SW. ¼ sec. 2, T. 6 N., R. 28 E., 65 feet below head gates, 6 miles northwest of Berenice, and 7 miles northwest of Howe, Butte County.

RECORDS AVAILABLE.—April 11, 1924, to September 30, 1926.

GAGE.—Vertical staff on left bank.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of gravel, silt, and fine sand; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.40 feet October 12–14 (discharge, 64 second-feet); minimum stage recorded, 0.53 foot April 1 (discharge, 2.6 second-feet). Canal dry at times during nonirrigation periods.

1924–1926: Maximum stage recorded, 1.60 feet July 5, 1925 (discharge, 85 second-feet); no flow at times during nonirrigation periods.

DIVERSIONS.—None above gage.

ICE.—Observations discontinued during winter.

REGULATION.—Flow regulated by gates in diversion dam above.

ACCURACY.—Stage-discharge relation changed during winter. Two well-defined rating curves used; one October 1–31 and the other from March 16 to September 30. Gage read to hundredths once daily. Daily discharge determined by applying daily gage height to rating table except as noted in footnote to table of daily discharge. Records good.

COOPERATION.—Gage-height record furnished by water master for Little Lost River.

Blaine County Investment Co.'s canal diverts water from right bank of Little Lost River in sec. 2, T. 6 N., R. 28 E., and is used for irrigation on lands in project of the company.

*Discharge measurements of Blaine County Investment Co.'s canal near Howe, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 6 | 0.68 | 5.7 | Apr. 5 | 0.78 | 10.3 | May 19 | 0.84 | 12.9 |
| Do | .65 | 4.6 | Apr. 23 | 1.27 | 48.6 | June 14 | .89 | 15.7 |
| Do | .89 | 15.2 | May 5 | 1.02 | 25.3 | July 3 | .86 | 14.1 |
| Mar. 16 | .77 | 8.9 | May 18 | .76 | 9.6 | Sept. 19 | .88 | 16.0 |

*Daily discharge, in second-feet, of Blaine County Investment Co.'s canal near Howe, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | 48 | | 2.6 | 41 | 31 | 16 | 8.6 | 7.0 |
| 2 | 48 | | 2.8 | 36 | 23 | 15 | 8.6 | 7.0 |
| 3 | 43 | | 3.0 | 34 | 30 | 15 | 8.6 | 7.0 |
| 4 | 43 | | 11 | 31 | 29 | 13 | 8.6 | 7.0 |
| 5 | 42 | | 10 | 25 | 24 | 12 | 8.2 | 10 |
| 6 | 45 | | 21 | 16 | 23 | 12 | 8.6 | 11 |
| 7 | 47 | | 27 | 25 | 26 | 12 | 8.6 | 11 |
| 8 | 54 | | 32 | 17 | 28 | 13 | 8.6 | 11 |
| 9 | 54 | | 34 | 16 | 28 | 13 | 8.6 | 11 |
| 10 | 60 | | 41 | 16 | 28 | 13 | 11 | 11 |
| 11 | 60 | | 44 | 16 | 24 | 12 | 8.6 | 11 |
| 12 | 64 | | 41 | 15 | 19 | 12 | 11 | 11 |
| 13 | 64 | | 34 | 13 | 16 | 13 | 8.6 | 11 |
| 14 | 64 | | 28 | 13 | 16 | 11 | 8.6 | 11 |
| 15 | 62 | | 26 | 13 | 16 | 11 | 8.6 | 11 |
| 16 | 62 | 9.8 | 24 | 13 | 16 | 11 | 8.6 | 15 |
| 17 | 62 | | 34 | 11 | 16 | 11 | 8.6 | 15 |
| 18 | 62 | | 39 | 9.8 | 13 | 10 | 6.7 | 15 |
| 19 | 62 | | 39 | 13 | 13 | 10 | 7.0 | 15 |
| 20 | 62 | | 37 | 13 | 13 | 8.6 | 6.7 | 15 |
| 21 | 62 | | 46 | 19 | 13 | 6.7 | 6.7 | 11 |
| 22 | 62 | | 44 | 19 | 17 | 6.7 | 6.7 | 7.0 |
| 23 | 62 | | 48 | 16 | 17 | 6.7 | 6.7 | 7.0 |
| 24 | 62 | | 50 | 17 | 16 | 6.7 | 7.0 | 7.0 |
| 25 | 58 | | 50 | 26 | 16 | 3.4 | 7.0 | 7.0 |
| 26 | 58 | 13 | 36 | 38 | 16 | 4.0 | 7.0 | 7.0 |
| 27 | 53 | | 36 | 29 | 12 | 3.8 | 7.0 | 7.0 |
| 28 | 53 | | 46 | 24 | 12 | 3.8 | 7.0 | 7.0 |
| 29 | 53 | | 34 | 15 | 15 | 3.8 | 7.0 | 8.2 |
| 30 | 53 | | 35 | 24 | 15 | 4.0 | 6.7 | 7.8 |
| 31 | 53 | | | 31 | | 4.0 | 7.0 | |

NOTE.—Discharge interpolated Oct. 22 and Aug. 27

*Monthly discharge of Blaine County Investment Co.'s canal near Howe, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 64 | 42 | 56.0 | 3,440 |
| April | 50 | 2.6 | 31.8 | 1,890 |
| May | 41 | 9.8 | 20.8 | 1,280 |
| June | 31 | 12 | 19.4 | 1,150 |
| July | 16 | 3.4 | 9.59 | 590 |
| August | 11 | 6.7 | 7.96 | 489 |
| September | 15 | 7.0 | 9.97 | 593 |

### BIG LOST RIVER AT HOWELL RANCH, NEAR CHILLY, IDAHO

LOCATION.—In sec. 30, T. 8 N., R. 21 E., at Howell ranch, 9 miles southwest of Chilly, Custer County, and 21 miles northwest of Mackay, the nearest railroad point.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 25, 1904, to August 31, 1906; July 1, 1907, to November 14, 1914; May 11, 1920, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank; installed June 17, 1920; inspected by Robert Kent.

DISCHARGE MEASUREMENTS.—Made from cable 50 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of sand, gravel, and cobbles. Channel straight. Banks covered with brush and subject to overflow at high stages. Control composed of gravel and cobbles; may shift at high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 2.98 feet at 7 to 8 a. m. May 20 (discharge, 831 second-feet); minimum stage, 1.11 feet at 4 p. m. September 25 (discharge, 50 second-feet).

1904–1914, 1920–1926: Maximum stage recorded, 5.94 feet 4 to 8 a. m. June 12, 1921 (discharge, 3,500 second-feet); minimum discharge, 35 second-feet April 2, 1909 (gage height, 1.9 feet).

ICE.—Stage-discharge relation seriously affected by ice; records discontinued during winter.

DIVERSIONS.—Several small diversions above. Hammerly ditch, capacity about 20 second-feet, diverts one-fourth mile below gage.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed during winter. Two rating curves used; one from October 1 to November 4 is well defined between 60 and 1,300 second-feet, and the other from April 7 to September 30 is well defined between 40 and 400 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph. Records excellent.

COOPERATION.—Water commissioner for Big Lost River furnished three discharge measurements.

*Discharge measurements of Big Lost River at Howell ranch, near Chilly, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 8 | 1.72 | 152 | May 11 | 2.06 | 309 | Sept. 10 | 1.18 | 61 |
| Mar. 14 | 2.94 | * 62 | May 16 | 2.23 | 375 | Sept. 21 | 1.19 | 61 |
| Apr. 7 | 1.45 | 111 | June 13 | 2.07 | 311 | | | |
| Apr. 21 | 2.19 | 374 | July 5 | 1.73 | 184 | | | |

* Stage-discharge relation affected by ice.

*Daily discharge, in second-feet, of Big Lost River at Howell ranch, near Chilly, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | 137 | 112 | | 653 | 482 | 262 | 96 | 68 |
| 2 | 134 | 117 | | 653 | 504 | 229 | 96 | 68 |
| 3 | 132 | 112 | | 646 | 492 | 204 | 98 | 70 |
| 4 | 130 | 110 | | 660 | 498 | 194 | 96 | 68 |
| 5 | 130 | | | 666 | 514 | 188 | 88 | 66 |
| 6 | 168 | | | 544 | 532 | 191 | 82 | 63 |
| 7 | 168 | | 107 | 470 | 526 | 194 | 82 | 63 |
| 8 | 154 | | 115 | 420 | 509 | 282 | 113 | 63 |
| 9 | 148 | | 132 | 374 | 455 | 270 | 100 | 60 |
| 10 | 145 | | 137 | 338 | 397 | 229 | 90 | 60 |
| 11 | 145 | | 132 | 312 | 366 | 197 | 92 | 60 |
| 12 | 154 | | 147 | 299 | 348 | 185 | 86 | 58 |
| 13 | 157 | | 181 | 282 | 321 | 175 | 86 | 60 |
| 14 | 145 | | 175 | 304 | 286 | 169 | 77 | 60 |
| 15 | 143 | | 221 | 325 | 262 | 158 | 77 | 58 |
| 16 | 143 | | 304 | 384 | 251 | 150 | 78 | 58 |
| 17 | 134 | | 343 | 406 | 229 | 137 | 78 | 65 |
| 18 | 134 | | 384 | 435 | 225 | 134 | 78 | 63 |
| 19 | 130 | | 410 | 492 | 221 | 127 | 78 | 62 |
| 20 | 130 | | 379 | 747 | 214 | 122 | 78 | 62 |
| 21 | 132 | | 374 | 646 | 194 | 115 | 75 | 62 |
| 22 | 130 | | 366 | 604 | 178 | 111 | 75 | 60 |
| 23 | 132 | | 334 | 679 | 194 | 107 | 72 | 58 |
| 24 | 122 | | 325 | 653 | 218 | 104 | 70 | 57 |
| 25 | 127 | | 370 | 568 | 218 | 102 | 70 | 60 |
| 26 | 117 | | 450 | 465 | 225 | 100 | 70 | 62 |
| 27 | 122 | | 482 | 420 | 236 | 100 | 73 | 62 |
| 28 | 120 | | 538 | 455 | 225 | 102 | 68 | 63 |
| 29 | 115 | | 628 | 514 | 221 | 100 | 66 | 73 |
| 30 | 110 | | 705 | 526 | 229 | 100 | 68 | 75 |
| 31 | 110 | | | 482 | | 98 | 70 | |

*Monthly discharge of Big Lost River at Howell ranch, near Chilly, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 168 | 110 | 135 | 8,300 |
| November 1–4 | 117 | 110 | 113 | 897 |
| April 7–31 | 705 | 107 | 322 | 15,300 |
| May | 747 | 282 | 497 | 30,600 |
| June | 532 | 178 | 326 | 19,400 |
| July | 282 | 98 | 159 | 9,780 |
| August | 113 | 66 | 81.5 | 5,010 |
| September | 75 | 57 | 62.8 | 3,740 |

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

LOCATION.—In sec. 32, T. 8 N., R. 23 E., 3 miles above Mackay Dam, above flow line of reservoir, and 7½ miles above Mackay, Custer County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 9, 1919, to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by employees of Utah Construction Co.

DISCHARGE MEASUREMENTS.—Made from suspension footbridge 20 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel; fairly permanent; one channel at low and medium stages; right bank overflowed at high stages. Control fairly well defined.

EXTREMES OF DISCHARGE.—Maximum discharge during year, from discharge measurement, 186 second-feet May 24; channel reported dry January 11 to May 2.

1919–1926: Maximum stage recorded, 3.37 feet June 16, 1922 (discharge, 999 second-feet); no flow April 27 to May 16, 1920, in winter of 1923, for long periods in 1924, January 1 to May 7, 1925, and January 11 to May 2, 1926.

ICE.—Stage-discharge relation affected by ice; no flow during winter.

DIVERSIONS.—None between gage and reservoir. Several canals divert water in vicinity of Chilly, above "dry beds," which extend from a few miles above gage to a point about 15 miles above.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed slightly during June. Two well-defined rating curves used, one from October 1 to June 23 and the other from June 29 to September 30. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph except for June 24–28, when shifting-control method was used, or as indicated in footnote to table of daily discharge. Records good except for estimated periods, for which they are fair.

COOPERATION.—Gage-height record and three discharge measurements furnished by water commissioner for Big Lost River.

The record at this station represents a portion of the natural flow of Big Lost River and, taken in conjunction with the record for west channel of Big Lost River and with the record for east and west channels of Warm Spring Creek, will show the entire flow of Big Lost River at this point. Except for small diversions in several irrigation canals past the stations the combined flow of Big Lost River and Warm Spring Creek represents practically the entire surface flow at this point into Mackay Reservoir located a short distance below. For record at station on west channel of river and on east and west channels of Warm Spring Creek see pages 82, 90, and 92, respectively. For combined flow of both channels of Big Lost River and both channels of Warm Spring Creek see page 85.

*Discharge measurements of Big Lost River (east channel) above Mackay Reservoir, near Mackay, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 7 | 0.00 | 10.0 | May 24 | 1.18 | [a] 186 | July 4 | −0.33 | 0.7 |
| Nov. 25 | −.16 | 4.4 | June 18 | −.08 | 7.5 | Sept. 20 | −.24 | 2.3 |
| May 17 | −.15 | 4.6 | | | | | | |

[a] Includes 21 second-feet estimated in overflow channels.

*Daily discharge, in second-feet, of Big Lost River (east channel) above Mackay Reservoir, near Mackay, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 7.2 | 3.9 | | | | | 0 | 134 | 0.9 | 3.0 | 1.0 |
| 2 | 12 | 7.6 | 4.4 | | | | | | 134 | .9 | 3.0 | 1.0 |
| 3 | 11 | 7.6 | 4.4 | | | | | 1.4 | 132 | .9 | 3.0 | .9 |
| 4 | 10 | 7.2 | 3.9 | | | | | 18 | 126 | .8 | 3.0 | .8 |
| 5 | 10 | 7.2 | 3.4 | 0.5 | | | | 45 | 112 | .8 | 3.0 | .8 |
| 6 | 12 | 6.8 | 3.4 | | | | | 41 | 107 | .7 | 3.0 | .8 |
| 7 | 11 | 6.8 | 3.4 | | | | | 58 | 112 | .7 | 3.2 | 1.0 |
| 8 | 11 | 6.8 | 3.4 | | | | | 63 | 116 | .7 | 3.4 | 1.0 |
| 9 | 11 | 6.8 | 3.4 | | | | | 59 | 119 | .6 | 3.4 | 1.0 |
| 10 | 11 | 6.8 | 3.4 | | | | | 54 | 125 | .3 | 3.7 | 1.0 |
| 11 | 11 | 6.8 | | | | | | 50 | 105 | | 3.9 | 1.0 |
| 12 | 11 | 6.8 | | | | | | 45 | 93 | 1.0 | 3.7 | 1.0 |
| 13 | 10 | 6.0 | | | | | | 26 | 81 | | 3.4 | 1.3 |
| 14 | 9.6 | 5.7 | 2.0 | | | | | 12 | 64 | | 3.2 | 1.4 |
| 15 | 9.2 | 5.7 | | | | | 0 | 8.4 | 37 | 4.4 | 3.0 | 1.7 |
| 16 | 9.2 | 5.7 | | | 0 | 0 | | 5.5 | 11 | 3.4 | 2.8 | 2.0 |
| 17 | 9.2 | 5.7 | 1.8 | | | | | 4.7 | 8.0 | 3.0 | 2.6 | 1.8 |
| 18 | 8.8 | 5.5 | | | | | | 3.2 | 6.8 | 3.0 | 2.8 | 1.8 |
| 19 | 8.8 | 5.5 | | | | | | 2.2 | 5.2 | 3.2 | 2.6 | 1.8 |
| 20 | 8.4 | 5.4 | | | | | | 2.4 | 4.4 | 3.2 | 2.2 | 2.0 |
| 21 | 8.4 | 5.2 | | 0 | | | | 8.4 | 3.7 | 3.0 | 2.0 | 2.0 |
| 22 | 8.4 | 5.0 | | | | | | 52 | 3.2 | 3.0 | 2.0 | 2.0 |
| 23 | 8.4 | 4.8 | | | | | | 154 | 2.6 | 2.8 | 1.4 | 2.6 |
| 24 | 8.4 | 4.6 | 1.0 | | | | | 185 | 1.8 | 3.0 | .9 | 2.7 |
| 25 | 8.4 | 4.4 | | | | | | 174 | 1.4 | 3.0 | .9 | 2.8 |
| 26 | 8.0 | 4.7 | | | | | | 148 | 1.3 | 3.0 | 1.2 | 2.6 |
| 27 | 7.6 | 4.4 | | | | | | 112 | 1.0 | 3.0 | 1.2 | 2.6 |
| 28 | 7.2 | 4.4 | | | | | | 125 | .7 | 3.2 | 1.0 | 2.6 |
| 29 | 7.2 | 4.2 | | | ------ | | | 144 | .3 | 3.2 | .8 | 2.6 |
| 30 | 7.2 | 3.9 | | | ------ | | | 150 | .7 | 3.0 | .8 | 2.6 |
| 31 | 7.2 | ------ | | | ------ | | ------- | 142 | ------ | 3.0 | .9 | ------ |

NOTE.—No gage heights Nov. 20-24, Sept. 15 and 24; discharge interpolated. Braced figures show mean estimated discharge for periods indicated.

*Monthly discharge of Big Lost River (east channel) above Mackay Reservoir, near Mackay, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 12 | 7.2 | 9.44 | 580 |
| November | 7.6 | 3.9 | 5.84 | 348 |
| December | 4.4 | ---------- | 2.09 | 129 |
| January | ---------- | ---------- | .16 | 9.8 |
| February | 0 | 0 | 0 | 0 |
| March | 0 | 0 | 0 | 0 |
| April | 0 | 0 | 0 | 0 |
| May | 185 | 0 | 61.1 | 3,760 |
| June | 134 | .3 | 55.0 | 3,270 |
| July | 4.4 | .3 | 2.09 | 129 |
| August | 3.9 | .8 | 2.42 | 149 |
| September | 2.8 | .8 | 1.67 | 99.4 |
| The year | 185 | 0 | 11.7 | 8,470 |

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

LOCATION.—In sec. 5, T. 7 N., R. 23 E., 3 miles above Mackay Dam, above flow line of reservoir, and 7½ miles above Mackay, Custer County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 9, 1919, to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder on left bank; installed May 4, 1920; inspected by employees of Utah Construction Co.

DISCHARGE MEASUREMENTS.—Made from suspension footbridge just above gage or by wading.

CHANNEL AND CONTROL.—Bed composed chiefly of gravel. Channel winding; banks subject to overflow at extremely high stages. Control of gravel, fairly well defined but subject to change.

EXTREMES OF DISCHARGE.—Maximum mean daily stage recorded during year, 1.48 feet May 29 (discharge, 91 second-feet); minimum stage, 1.04 feet March 14–16, 25–31, April 1–7, 20–30, May 1 and 2 (discharge, 26 second-feet).

1919–1926: Maximum discharge, estimated 1,200 second-feet from high-water mark on gage during period June 5–16, 1921, when water-stage recorder was not operating (gage height, 4.45 feet); minimum stage, 0.84 foot May 3–6, 1925 (discharge, 13 second-feet).

ICE.—Formation of ice negligible on account of spring inflow above.

DIVERSIONS.—None between station and reservoir. Several canals divert water above the "dry beds" which extend from a point a few miles above station to a point about 15 miles above, near Chilly. No surface flow passes the "dry beds" except during fairly high stages.

REGULATION.—None.

ACCURACY.—Stage-discharge relation unchanged during year. Rating curve well defined below 200 second-feet and fairly well defined above to 500 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph. Records excellent.

COOPERATION.—Gage-height record and three discharge measurements furnished by water commissioner for Big Lost River.

The record at this station represents a portion of the natural flow of Big Lost River and taken in conjunction with record for east channel of Big Lost River and with the record for east and west channels of Warm Spring Creek will show the entire surface of Big Lost River at this point. Except for small diversions in several irrigation canals past the stations the combined flow of Big Lost River and Warm Spring Creek represents practically the entire flow at this point into Mackay Reservoir located a short distance downstream. For record at station on east channel of river and on east and west channels of Warm Spring Creek see pages 80, 90, and 92, respectively. For combined flow of both channels of Big Lost River and Warm Spring Creek see page 85.

*Discharge measurements of Big Lost River (west channel) above Mackay Reservoir, near Mackay, Idaho, during the year ending September, 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 7 | 1.30 | 59 | Apr. 22 | 1.03 | 24.7 | July 4 | 1.12 | 34.2 |
| Nov. 25 | 1.17 | 40.3 | May 17 | 1.12 | 34.1 | Sept. 20 | 1.14 | 36.6 |
| Mar. 15 | 1.04 | 26.6 | May 24 | 1.44 | 84 | | | |
| Apr. 6 | 1.04 | 24.5 | June 18 | 1.10 | 32.8 | | | |

*Daily discharge, in second-feet, of Big Lost River (west channel) above Mackay Reservoir, near Mackay, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 58 | 50 | 40 | 34 | 30 | 28 | 26 | 26 | 79 | 31 | 34 | 35 |
| 2 | 58 | 50 | 40 | 34 | 30 | 28 | 26 | 26 | 68 | 31 | 34 | 36 |
| 3 | 57 | 50 | 39 | 34 | 29 | 28 | 26 | 27 | 68 | 32 | 34 | 36 |
| 4 | 57 | 48 | 39 | 34 | 29 | 28 | 26 | 33 | 65 | 34 | 33 | 36 |
| 5 | 57 | 47 | 39 | 33 | 29 | 28 | 26 | 39 | 60 | 33 | 33 | 36 |
| 6 | 60 | 47 | 39 | 33 | 29 | 28 | 26 | 42 | 70 | 32 | 34 | 36 |
| 7 | 57 | 47 | 39 | 33 | 29 | 28 | 26 | 47 | 76 | 32 | 35 | 38 |
| 8 | 56 | 47 | 38 | 32 | 29 | 28 | 27 | 51 | 79 | 32 | 35 | 38 |
| 9 | 56 | 45 | 38 | 32 | 29 | 28 | 27 | 54 | 77 | 32 | 34 | 38 |
| 10 | 56 | 45 | 36 | 32 | 29 | 28 | 27 | 54 | 70 | 32 | 35 | 38 |
| 11 | 56 | 45 | 36 | 32 | 29 | 28 | 27 | 52 | 65 | 32 | 38 | 38 |
| 12 | 56 | 45 | 36 | 32 | 29 | 27 | 27 | 50 | 63 | 32 | 36 | 38 |
| 13 | 56 | 45 | 36 | 32 | 29 | 27 | 27 | 44 | 58 | 32 | 35 | 36 |
| 14 | 54 | 44 | 36 | 32 | 29 | 26 | 27 | 39 | 54 | 34 | 35 | 36 |
| 15 | 54 | 44 | 36 | 32 | 28 | 26 | 27 | 36 | 42 | 34 | 35 | 36 |
| 16 | 54 | 44 | 36 | 32 | 28 | 26 | 27 | 35 | 34 | 32 | 36 | 36 |
| 17 | 54 | 44 | 36 | 32 | 27 | 27 | 27 | 34 | 35 | 31 | 36 | 36 |
| 18 | 52 | 43 | 36 | 32 | 27 | 27 | 28 | 31 | 32 | 31 | 36 | 36 |
| 19 | 52 | 42 | 36 | 31 | 27 | 27 | 27 | 29 | 32 | 32 | 36 | 36 |
| 20 | 51 | 43 | 36 | 31 | 27 | 27 | 26 | 30 | 32 | 33 | 36 | 38 |
| 21 | 51 | 42 | 36 | 30 | 27 | 27 | 26 | 33 | 32 | 33 | 36 | 38 |
| 22 | 51 | 42 | 36 | 30 | 27 | 27 | 26 | 50 | 31 | 34 | 36 | 38 |
| 23 | 51 | 42 | 36 | 30 | 27 | 27 | 26 | 67 | 30 | 34 | 36 | 38 |
| 24 | 51 | 42 | 36 | 30 | 27 | 27 | 26 | 79 | 30 | 34 | 36 | 38 |
| 25 | 51 | 40 | 36 | 30 | 27 | 26 | 26 | 85 | 29 | 35 | 35 | 38 |
| 26 | 51 | 40 | 36 | 30 | 27 | 26 | 26 | 81 | 29 | 34 | 36 | 38 |
| 27 | 50 | 42 | 36 | 30 | 27 | 26 | 26 | 76 | 30 | 34 | 35 | 39 |
| 28 | 50 | 42 | 36 | 30 | 27 | 26 | 26 | 85 | 30 | 33 | 35 | 39 |
| 29 | 50 | 40 | 35 | 30 | ------- | 26 | 26 | 91 | 29 | 33 | 35 | 39 |
| 30 | 50 | 40 | 35 | 30 | ------- | 26 | 26 | 87 | 30 | 33 | 35 | 39 |
| 31 | 50 | ------- | 34 | 30 | ------- | 26 | ------- | 81 | ------- | 33 | 35 | ------- |

NOTE.—Discharge interpolated Dec. 26 and 27.

*Monthly discharge of Big Lost River (west channel) above Mackay Reservoir, near Mackay, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 60 | 50 | 53.8 | 3,310 |
| November | 50 | 40 | 44.2 | 2,630 |
| December | 40 | 34 | 36.7 | 2,260 |
| January | 34 | 30 | 31.6 | 1,940 |
| February | 30 | 27 | 28.1 | 1,560 |
| March | 28 | 26 | 27.0 | 1,660 |
| April | 28 | 26 | 26.4 | 1,570 |
| May | 91 | 26 | 51.4 | 3,160 |
| June | 79 | 29 | 48.8 | 2,900 |
| July | 35 | 31 | 32.7 | 2,010 |
| August | 38 | 33 | 35.1 | 2,160 |
| September | 39 | 35 | 37.2 | 2,210 |
| The year | 91 | 26 | 37.8 | 27,400 |

*Combined daily 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, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 220 | 197 | 186 | 172 | 159 | 158 | 151 | 103 | 353 | 131 | 134 | 143 |
| 2 | 220 | 200 | 186 | 172 | 158 | 158 | 151 | 105 | 336 | 131 | 134 | 148 |
| 3 | 216 | 201 | 185 | 172 | 157 | 158 | 151 | 109 | 336 | 132 | 134 | 152 |
| 4 | 214 | 196 | 185 | 170 | 157 | 158 | 151 | 136 | 324 | 135 | 133 | 150 |
| 5 | 214 | 196 | 183 | 170 | 157 | 158 | 151 | 176 | 308 | 132 | 134 | 150 |
| 6 | 223 | 197 | 183 | 170 | 157 | 158 | 151 | 179 | 310 | 131 | 134 | 152 |
| 7 | 218 | 197 | 182 | 170 | 158 | 158 | 151 | 207 | 324 | 133 | 137 | 154 |
| 8 | 215 | 197 | 180 | 168 | 158 | 158 | 152 | 232 | 330 | 135 | 138 | 152 |
| 9 | 213 | 194 | 179 | 168 | 158 | 158 | 149 | 232 | 331 | 135 | 136 | 152 |
| 10 | 213 | 194 | 176 | 168 | 160 | 158 | 148 | 227 | 327 | 133 | 141 | 151 |
| 11 | 214 | 194 | 175 | 168 | 161 | 158 | 146 | 224 | 301 | 134 | 144 | 149 |
| 12 | 216 | 194 | 176 | 166 | 162 | 157 | 142 | 213 | 284 | 133 | 143 | 149 |
| 13 | 217 | 192 | 177 | 166 | 161 | 158 | 138 | 186 | 263 | 134 | 140 | 146 |
| 14 | 215 | 191 | 176 | 166 | 161 | 156 | 137 | 153 | 237 | 136 | 139 | 146 |
| 15 | 214 | 191 | 177 | 165 | 161 | 156 | 134 | 141 | 186 | 138 | 139 | 146 |
| 16 | 212 | 191 | 177 | 164 | 161 | 154 | 125 | 134 | 144 | 133 | 138 | 144 |
| 17 | 210 | 191 | 177 | 164 | 159 | 157 | 121 | 132 | 140 | 133 | 138 | 142 |
| 18 | 207 | 188 | 176 | 164 | 160 | 157 | 120 | 126 | 131 | 133 | 138 | 140 |
| 19 | 204 | 188 | 177 | 163 | 160 | 157 | 115 | 121 | 130 | 134 | 140 | 139 |
| 20 | 199 | 192 | 176 | 163 | 159 | 157 | 110 | 124 | 129 | 133 | 139 | 141 |
| 21 | 198 | 191 | 175 | 162 | 159 | 154 | 108 | 140 | 128 | 135 | 137 | 143 |
| 22 | 198 | 189 | 175 | 162 | 158 | 154 | 105 | 224 | 126 | 136 | 137 | 141 |
| 23 | 199 | 190 | 176 | 162 | 158 | 152 | 104 | 361 | 125 | 136 | 141 | 141 |
| 24 | 199 | 190 | 176 | 162 | 158 | 152 | 104 | 416 | 124 | 136 | 140 | 141 |
| 25 | 199 | 187 | 176 | 161 | 156 | 151 | 104 | 415 | 121 | 137 | 139 | 145 |
| 26 | 199 | 187 | 176 | 161 | 156 | 151 | 104 | 379 | 122 | 134 | 140 | 152 |
| 27 | 198 | 188 | 176 | 161 | 156 | 151 | 104 | 334 | 125 | 133 | 142 | 150 |
| 28 | 195 | 188 | 175 | 161 | 156 | 151 | 103 | 356 | 125 | 132 | 142 | 150 |
| 29 | 195 | 186 | 173 | 161 | ------- | 148 | 103 | 385 | 123 | 132 | 142 | 152 |
| 30 | 195 | 186 | 173 | 159 | ------- | 151 | 103 | 383 | 129 | 132 | 143 | 151 |
| 31 | 195 | ------- | 172 | 159 | ------- | 151 | ------- | 365 | ------- | 131 | 143 | ------ |

*Combined monthly discharge of Big Lost River (east and west channels) and Warm Spring Creek (east and west channels) above Mackay Reservoir, near Mackay, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 223 | 195 | 208 | 12,800 |
| November | 201 | 186 | 192 | 11,400 |
| December | 186 | 172 | 178 | 10,900 |
| January | 172 | 159 | 165 | 10,100 |
| February | 162 | 156 | 159 | 8,830 |
| March | 158 | 148 | 155 | 9,530 |
| April | 152 | 103 | 128 | 7,620 |
| May | 416 | 103 | 226 | 13,900 |
| June | 353 | 121 | 216 | 12,900 |
| July | 138 | 131 | 134 | 8,240 |
| August | 144 | 133 | 139 | 8,550 |
| September | 154 | 139 | 147 | 8,750 |
| The year | 416 | 103 | 171 | 124,000 |

### MACKAY RESERVOIR NEAR MACKAY, IDAHO

LOCATION.—In sec. 12, T. 7 N., R. 23 E., 4 miles northwest of Mackay, Custer County.

RECORDS AVAILABLE.—January 1, 1919, to September 30, 1926.

GAGE.—Vertical staff on head-gate tower near right end of dam; read to hundredths once daily by employees of Utah Construction Co. Datum of gage 6,000 feet above sea level.

EXTREMES OF CONTENTS.—Maximum stage recorded during year 56.10 feet April 18 and 19 (contents, 31,270 acre-feet); no available storage August 12 to September 30.

1919–1926: Maximum stage recorded, 63.62 feet June 26, 1922 (contents, 40,500 acre-feet); minimum contents, water surface below bottom of outlet tunnel August 1 to October 19, 1919, August 5, 17–27, 31, September 1–5, 12–14, 18, 1920, August 5, 1924, and August 12 to September 30, 1926 (minimum stage during these periods, 6.6 feet August 24 to September 2, 1919).

COOPERATION.—Gage-height record furnished by Utah Construction Co., through water commissioner for Big Lost River.

Stored water from this reservoir is used for irrigation of land near Arco, under the Utah Construction Co.'s Carey Act project. About 5,600 acres are under cultivation at present, but this area is subject to change from year to year. Elevation of bottom of outlet tunnel corresponds to 7.0 feet on gage, at which stage the usable storage is zero, although there is about 125 acre-feet of water in reservoir, which is not available for use. Elevation of crest of spillway corresponds to 62.0 feet on gage, at which stage capacity of reservoir is 38,400 acre-feet, about 2,400 acres of land being submerged.

*Daily contents, in acre-feet, of Mackay Reservoir near Mackay, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,650 | 7,671 | 15,600 | 21,340 | 25,680 | 28,390 | 30,680 | 30,950 | 19,640 | 8,800 | 232 |
| 2 | 2,761 | 7,991 | 15,810 | 21,480 | 25,780 | 28,450 | 30,730 | 30,930 | 18,990 | 8,522 | 214 |
| 3 | 2,869 | 8,307 | 16,010 | 21,620 | 25,880 | 28,550 | 30,790 | 30,900 | 18,420 | 8,201 | 189 |
| 4 | 2,954 | 8,594 | 16,230 | 21,790 | 25,990 | 28,650 | 30,820 | 30,940 | 17,730 | 7,682 | 150 |
| 5 | 3,079 | 8,880 | 16,410 | 21,950 | 26,090 | 28,760 | 30,870 | 30,990 | 17,100 | 7,098 | 131 |
| 6 | 3,233 | 9,170 | 16,570 | 22,090 | 26,190 | 28,870 | 30,910 | 30,990 | 16,480 | 6,562 | 114 |
| 7 | 3,361 | 9,458 | 16,850 | 22,240 | 26,300 | 28,980 | 30,980 | 30,780 | 15,880 | 5,973 | 117 |
| 8 | 3,481 | 9,740 | 17,060 | 22,410 | 26,400 | 29,090 | 31,030 | 30,360 | 15,300 | 5,297 | 97 |
| 9 | 3,590 | 10,020 | 17,230 | 22,570 | 26,510 | 29,200 | 31,090 | 30,000 | 14,760 | 4,617 | 64 |
| 10 | 3,722 | 10,380 | 17,450 | 22,740 | 26,610 | 29,270 | 31,130 | 29,590 | 14,190 | 3,968 | 36 |
| 11 | 3,850 | 10,620 | 17,670 | 22,910 | 26,720 | 29,330 | 31,170 | 29,060 | 13,620 | 3,318 | 00 |
| 12 | 3,993 | 10,880 | 17,820 | 23,050 | 26,820 | 29,430 | 31,190 | 28,480 | 13,060 | 2,576 | 2 |
| 13 | 4,125 | 11,160 | 18,120 | 23,230 | 26,930 | 29,540 | 31,210 | 27,840 | 12,540 | 1,872 | |
| 14 | 4,254 | 11,390 | 18,230 | 23,390 | 27,040 | 29,650 | 31,220 | 27,150 | 11,970 | 1,091 | |
| 15 | 4,414 | 11,590 | 18,400 | 23,540 | 27,180 | 29,720 | 31,230 | 26,440 | 11,380 | 1,039 | |
| 16 | 4,590 | 11,870 | 18,570 | 23,690 | 27,340 | 29,770 | 31,230 | 25,780 | 10,800 | 987 | |
| 17 | 4,756 | 12,110 | 18,770 | 23,840 | 27,460 | 29,830 | 31,250 | 25,050 | 10,370 | 896 | |
| 18 | 4,922 | 12,390 | 18,990 | 24,010 | 27,570 | 29,880 | 31,270 | 24,380 | 10,000 | 788 | |
| 19 | 5,109 | 12,650 | 19,210 | 24,180 | 27,680 | 29,940 | 31,270 | 23,670 | 9,746 | 697 | |
| 20 | 5,293 | 12,910 | 19,430 | 24,330 | 27,780 | 30,000 | 31,250 | 22,910 | 9,535 | 603 | |
| 21 | 5,475 | 13,160 | 19,670 | 24,480 | 27,890 | 30,050 | 31,220 | 22,310 | 9,497 | 514 | 0 |
| 22 | 5,669 | 13,420 | 19,870 | 24,600 | 28,000 | 30,110 | 31,180 | 21,850 | 9,509 | 459 | |
| 23 | 5,871 | 13,680 | 20,030 | 24,730 | 28,070 | 30,160 | 31,140 | 21,350 | 9,497 | 409 | |
| 24 | 6,086 | 13,920 | 20,160 | 24,860 | 28,120 | 30,220 | 31,120 | 20,880 | 9,433 | 342 | |
| 25 | 6,285 | 14,140 | 20,300 | 24,960 | 28,170 | 30,280 | 31,090 | 20,480 | 9,370 | 282 | |
| 26 | 6,481 | 14,370 | 20,490 | 25,060 | 28,230 | 30,330 | 31,060 | 20,080 | 9,351 | 223 | |
| 27 | 6,655 | 14,600 | 20,680 | 25,160 | 28,280 | 30,390 | 31,040 | 19,760 | 9,358 | 150 | |
| 28 | 6,822 | 14,880 | 20,810 | 25,260 | 28,340 | 30,450 | 31,020 | 19,640 | 9,358 | 120 | |
| 29 | 6,980 | 15,190 | 20,930 | 25,370 | ------- | 30,500 | 30,990 | 19,800 | 9,358 | 214 | |
| 30 | 7,136 | 15,390 | 21,070 | 25,470 | ------- | 30,560 | 30,970 | 19,900 | 9,121 | 262 | |
| 31 | 7,371 | ------- | 21,210 | 25,570 | ------- | 30,620 | ------- | 19,940 | ------- | 252 | |

NOTE.—No available storage Aug. 12 to Sept. 30.

### BIG LOST RIVER BELOW MACKAY RESERVOIR, NEAR MACKAY, IDAHO

LOCATION. In sec. 18, T. 7 N., R. 24 E., 450 feet below Oleson suspension bridge, half a mile above heading of Streeter ditch, 1½ miles below Mackay Dam, 1 mile below Sharp ditch heading, and 2½ miles above Mackay, Custer County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—December 1, 1903, to August 31, 1906; May 12, 1912, to March 15, 1915; January 1, 1919, to September 30, 1926.

GAGE.—Friez water-stage recorder installed May 4, 1920, on left bank; inspected by employees of Utah Construction Co.

DISCHARGE MEASUREMENTS.—Made from cable just below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel; shifts occasionally. Moss growth at times affects stage-discharge relation.

EXTREMES OF DISCHARGE.—Maximum mean daily stage recorded during year, 2.91 feet May 24 (discharge, 700 second-feet); minimum discharge, 56 second-feet November 1–9.

1903–1906, 1912–1915, 1919–1926: Maximum stage recorded, 5.79 feet June 10, 1921 (discharge, 2,990 second-feet); minimum discharge, 38 second-feet November 2, 1924.

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Numerous diversions above Mackay Reservoir, but Sharp ditch is only diversion between gage and reservoir.

REGULATION.—Flow past gage regulated by operation of gates in Mackay Dam. Prior to 1917 regulation from storage above was practically negligible.

ACCURACY.—Stage-discharge relation not permanent, affected by tree on control June 22 to July 4. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspecting recorder graph, except shifting-control method used October 1 to November 4 and June 22 to July 4. Records good.

COOPERATION.—Gage-height record and four discharge measurements furnished by water commissioner for Big Lost River.

*Discharge measurements of Big Lost River below Mackay Reservoir, near Mackay, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 7 | 1.72 | 171 | Apr. 21 | 1.65 | 136 | July 16 | 1.84 | 191 |
| Nov. 14 | 1.38 | 59 | May 27 | 2.67 | 570 | Sept. 21 | 1.68 | 150 |
| Mar. 15 | 1.64 | 138 | June 17 | 2.29 | 382 | | | |
| Apr. 6 | 1.64 | 143 | July 4 | 2.61 | 490 | | | |

*Daily discharge, in second-feet, of Big Lost River below Mackay Reservoir, near Mackay, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 178 | 56 | 80 | 105 | 110 | 125 | 135 | 110 | 522 | 335 | 161 | 148 |
| 2 | 181 | 56 | 80 | 108 | 113 | 125 | 135 | 110 | 688 | 315 | 161 | 154 |
| 3 | 181 | 56 | 80 | 108 | 113 | 125 | 135 | 108 | 672 | 323 | 164 | 154 |
| 4 | 181 | 56 | 82 | 108 | 113 | 125 | 135 | 113 | 644 | 460 | 168 | 164 |
| 5 | 171 | 56 | 82 | 108 | 116 | 125 | 135 | 141 | 638 | 472 | 161 | 161 |
| 6 | 171 | 56 | 82 | 108 | 116 | 128 | 135 | 164 | 649 | 453 | 157 | 157 |
| 7 | 171 | 56 | 82 | 108 | 116 | 128 | 132 | 353 | 655 | 492 | 157 | 154 |
| 8 | 174 | 56 | 85 | 108 | 116 | 128 | 128 | 444 | 649 | 532 | 168 | 151 |
| 9 | 174 | 56 | 85 | 108 | 116 | 132 | 128 | 420 | 638 | 537 | 171 | 151 |
| 10 | 168 | 59 | 85 | 108 | 116 | 135 | 128 | 448 | 633 | 517 | 168 | 151 |

*Daily discharge, in second-feet, of Big Lost River below Mackay Reservoir, near Mackay, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 171 | 59 | 85 | 108 | 116 | 135 | 128 | 492 | 606 | 522 | 168 | 148 |
| 12 | 174 | 59 | 85 | 108 | 116 | 135 | 128 | 522 | 574 | 532 | 168 | 148 |
| 13 | 178 | 59 | 85 | 108 | 116 | 135 | 128 | 502 | 553 | 548 | 164 | 144 |
| 14 | 171 | 61 | 85 | 108 | 116 | 135 | 125 | 512 | 532 | 532 | 161 | 144 |
| 15 | 157 | 61 | 85 | 108 | 116 | 135 | 122 | 507 | 497 | 270 | 154 | 148 |
| 16 | 151 | 64 | 88 | 108 | 119 | 135 | 122 | 497 | 453 | 202 | 151 | 148 |
| 17 | 151 | 64 | 88 | 108 | 119 | 135 | 122 | 502 | 388 | 217 | 151 | 148 |
| 18 | 141 | 66 | 88 | 108 | 119 | 135 | 122 | 487 | 348 | 213 | 151 | 148 |
| 19 | 125 | 69 | 88 | 108 | 119 | 135 | 119 | 502 | 323 | 210 | 154 | 148 |
| 20 | 122 | 69 | 90 | 108 | 122 | 135 | 122 | 522 | 294 | 202 | 157 | 148 |
| 21 | 125 | 71 | 93 | 108 | 122 | 135 | 125 | 482 | 206 | 195 | 157 | 148 |
| 22 | 116 | 71 | 93 | 108 | 122 | 135 | 113 | 487 | 160 | 188 | 151 | 151 |
| 23 | 105 | 74 | 93 | 108 | 122 | 135 | 113 | 627 | 163 | 185 | 151 | 151 |
| 24 | 105 | 74 | 96 | 108 | 122 | 135 | 113 | 700 | 190 | 185 | 151 | 151 |
| 25 | 108 | 74 | 96 | 108 | 122 | 135 | 116 | 655 | 190 | 188 | 151 | 151 |
| 26 | 108 | 77 | 99 | 108 | 122 | 135 | 116 | 606 | 163 | 185 | 148 | 154 |
| 27 | 113 | 77 | 99 | 110 | 122 | 135 | 113 | 537 | 153 | 178 | 144 | 161 |
| 28 | 122 | 77 | 102 | 110 | 122 | 135 | 113 | 434 | 153 | 154 | 144 | 164 |
| 29 | 125 | 77 | 102 | 110 | ------ | 135 | 113 | 319 | 153 | 125 | 144 | 164 |
| 30 | 125 | 77 | 102 | 110 | ------ | 135 | 113 | 344 | 281 | 119 | 144 | 168 |
| 31 | 90 | ------ | 105 | 110 | ------ | 135 | ------ | 344 | ------ | 151 | 144 | ------ |

NOTE.—Discharge for July 15 is average for intervals of a day.

*Monthly discharge of Big Lost River below Mackay Reservoir, near Mackay, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 181 | 90 | 146 | 8,980 |
| November | 77 | 56 | 64.3 | 3,860 |
| December | 105 | 80 | 89.4 | 5,500 |
| January | 110 | 105 | 108 | 6,640 |
| February | 122 | 110 | 118 | 6,550 |
| March | 135 | 125 | 133 | 8,180 |
| April | 135 | 113 | 124 | 7,380 |
| May | 700 | 108 | 419 | 25,800 |
| June | 688 | 153 | 426 | 25,300 |
| July | 548 | 119 | 314 | 19,300 |
| August | 171 | 144 | 156 | 9,590 |
| September | 168 | 144 | 153 | 9,100 |
| The year | 700 | 56 | 188 | 136,000 |

### BIG LOST RIVER NEAR MOORE, IDAHO

LOCATION.—In sec. 4, T. 5 N., R. 26 E., at Grant Walburn ranch, 1 mile above Moore Canal diversion, 4 miles north of Moore, Butte County, and 11 miles north of Arco.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—November 18, 1919, to December 4, 1926, when station was discontinued.

GAGE.—Vertical staff on right bank; read by L. G. Walburn and J. J. Kyne.

DISCHARGE MEASUREMENTS.—Made from cable 20 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of clean gravel. Banks are low and likely to be overflowed at high stages. Channel winding. Control formed by well-defined gravel bar; subject to shift.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period, 1.21 feet May 26 (discharge, 205 second-feet); minimum stage, 0.32 foot November 4, 1926 (discharge, 28 second-feet).

1920–1926: Maximum discharge, about 2,330 second-feet June 14, 1921, based on high-water marks on gage; minimum stage, 0.16 foot December 27–29, 1924 (discharge, 12 second-feet).

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Numerous canal diversions above station. Moore Canal diverts 1 mile below.

REGULATION.—Flow regulated by operation of head gates at Mackay Dam and by canal diversions above station.

ACCURACY.—Stage-discharge relation not permanent. Rating curves well defined below 750 second-feet. Staff gage read once daily to hundredths. Daily discharge determined by applying daily gage height to rating table except as noted in footnote to table of daily discharge. Records good.

COOPERATION.—May to September gage record and two discharge measurements furnished by water commissioner for Big Lost River.

*Discharge measurements of Big Lost River near Moore, Idaho, during the period October 1, 1925, to December 4, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 6 | 0.90 | 124 | Apr. 5 | 0.66 | 78 | July 3 | 0.58 | 63 |
| Dec. 3 | .71 | 82 | Apr. 22 | .60 | 64 | Sept. 17 | .54 | 56 |
| Mar. 16 | .95 | 141 | May 18 | .70 | 84 | Sept. 20 | .55 | 62 |

*Daily discharge, in second-feet, of Big Lost River near Moore, Idaho, for the period October 1, 1925, to December 4, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 118 | 87 | 89 | 74 | ------ | ------ | ------ | 129 | 44 | 56 | 56 | 64 | 63 | 30 |
| 2 | 120 | 91 | 91 | 80 | ------ | ------ | ------ | 178 | 67 | 56 | 59 | 66 | 61 | 29 |
| 3 | 118 | 89 | 91 | 85 | ------ | ------ | ------ | 163 | 64 | 56 | 59 | 66 | 66 | 32 |
| 4 | 118 | 85 | 89 | 80 | ------ | ------ | ------ | 143 | 80 | 61 | 56 | 69 | 59 | 30 |
| 5 | 116 | 85 | 89 | 83 | ------ | 78 | ------ | 129 | 80 | 63 | 56 | 71 | 63 | ------ |
| 6 | 122 | 89 | 89 | 85 | ------ | ------ | ------ | 134 | 73 | 59 | 59 | 50 | 48 | ------ |
| 7 | 118 | 89 | 89 | 89 | ------ | ------ | ------ | 125 | 66 | 64 | 59 | 53 | 40 | ------ |
| 8 | 116 | 89 | 89 | 89 | ------ | ------ | ------ | 129 | 66 | 64 | 58 | 59 | 33 | ------ |
| 9 | 116 | 89 | 89 | 85 | ------ | ------ | 116 | 129 | 80 | 69 | 58 | 73 | 34 | ------ |
| 10 | 116 | 89 | 87 | 76 | ------ | ------ | 118 | 139 | 73 | 66 | 58 | 73 | 35 | ------ |
| 11 | 114 | 91 | 87 | 67 | ------ | ------ | 95 | 134 | 78 | 69 | 58 | 74 | 37 | ------ |
| 12 | 125 | 91 | 89 | 64 | ------ | ------ | 95 | 120 | 76 | 66 | 55 | 74 | 33 | ------ |
| 13 | 125 | 91 | 95 | 61 | ------ | ------ | 85 | 111 | 74 | 66 | 58 | 76 | 33 | ------ |
| 14 | 125 | 91 | 111 | 55 | ------ | ------ | 83 | 99 | 91 | 63 | 58 | 76 | 33 | ------ |
| 15 | 118 | 91 | 97 | 71 | ------ | ------ | 78 | 97 | 83 | 63 | 58 | 71 | 32 | ------ |
| 16 | 111 | 91 | 89 | 61 | 141 | ------ | 80 | 97 | 107 | 56 | 58 | 64 | 32 | ------ |
| 17 | 114 | 90 | 87 | 71 | ------ | ------ | 76 | 80 | 87 | 56 | 58 | 63 | 33 | ------ |
| 18 | 111 | 89 | 87 | 78 | ------ | ------ | 83 | 63 | 87 | 59 | 59 | 64 | 34 | ------ |
| 19 | 107 | 89 | 85 | 73 | ------ | ------ | 73 | 73 | 85 | 59 | 59 | 63 | 33 | ------ |
| 20 | 103 | 89 | 101 | 82 | ------ | ------ | 87 | 69 | 80 | 59 | 61 | 71 | 30 | ------ |
| 21 | 103 | 91 | 89 | 80 | ------ | ------ | 95 | 69 | 85 | 59 | 61 | 66 | 30 | ------ |
| 22 | 103 | 91 | 89 | 82 | ------ | 64 | 82 | 116 | 80 | 55 | 61 | 59 | 29 | ------ |
| 23 | 93 | 89 | 87 | 82 | ------ | ------ | 105 | 95 | 73 | 55 | 61 | 55 | 30 | ------ |
| 24 | 93 | 89 | 85 | ------ | ------ | ------ | 129 | 95 | 73 | 38 | 61 | 64 | 28 | ------ |
| 25 | 91 | 87 | 91 | ------ | ------ | ------ | 163 | 95 | 73 | 52 | 63 | 66 | 33 | ------ |
| 26 | 89 | 87 | 91 | ------ | ------ | ------ | 205 | 91 | 73 | 53 | 63 | 63 | 29 | ------ |
| 27 | 84 | 87 | 109 | ------ | ------ | ------ | 168 | 76 | 71 | 53 | 63 | 64 | 30 | ------ |
| 28 | 80 | 87 | 101 | ------ | ------ | ------ | 143 | 73 | 69 | 53 | 64 | 63 | 29 | ------ |
| 29 | 78 | 87 | 82 | ------ | ------ | ------ | 103 | 69 | 67 | 53 | 63 | 61 | 30 | ------ |
| 30 | 78 | 87 | 82 | ------ | ------ | ------ | 125 | 73 | 56 | 53 | 63 | 63 | 29 | ------ |
| 31 | 76 | ------ | 67 | ------ | ------ | ------ | 120 | ------ | 52 | 56 | ------ | 63 | ------ | ------ |

NOTE.—Discharge interpolated Oct. 27, Nov. 17, and Jan. 2. No gage-height record Jan. 24 to May 8; discharge Mar. 16, Apr. 5 and 22 result of measurements.

*Monthly discharge of Big Lost River near Moore, Idaho, for the period October 1, 1925, to December 4, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| 1925 | | | | |
| October | 125 | 76 | 106 | 6,520 |
| November | 91 | 85 | 88.9 | 5,290 |
| December | 111 | 67 | 90.1 | 5,540 |
| 1926 | | | | |
| January 1–23 | 89 | 55 | 76.2 | 3,480 |
| May 9–31 | 205 | 73 | 109 | 4,970 |
| June | 178 | 63 | 106 | 6,310 |
| July | 107 | 44 | 74.6 | 4,590 |
| August | 69 | 38 | 58.4 | 3,590 |
| September | 64 | 55 | 59.4 | 3,530 |
| October | 76 | 50 | 65.4 | 4,020 |
| November | 66 | 28 | 37.6 | 2,240 |
| December 1–4 | | | 30.2 | 240 |

### WARM SPRING CREEK (EAST CHANNEL) NEAR MACKAY, IDAHO

LOCATION.—In NE. ¼ sec. 5, T. 7 N., R. 23 E., 500 feet above junction with west channel of Warm Spring Creek, 3½ miles above Mackay Dam, and 7½ miles northwest of Mackay, Custer County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 1, 1919, to September 30, 1926.

GAGE.—Vertical staff on right bank; read by employees of Utah Construction Co.

DISCHARGE MEASUREMENTS.—Made from suspension bridge 125 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. One channel at all stages. Banks steep and covered with brush. Channel congested by growth of moss during summer.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.69 feet May 24 (discharge, 42 second-feet); minimum discharge, 15 second-feet, April 22 to May 3.

1919–1926: Maximum discharge recorded, 225 second-feet, June 15, 1922; minimum discharge, 9 second-feet May 8, 9, 13, and 14, 1919, and May 18–21, 1920.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—Natural flow practically all diverted during irrigation season. Flow during summer represents return flow from irrigation above. Entire flow stored in Mackay Reservoir 3½ miles below.

REGULATION.—None.

ACCURACY.—Stage-discharge relation affected by growth of moss and by brush along banks. Rating curve well defined. Gage read to hundredths once or twice weekly. Daily discharge ascertained by shifting-control method, except as indicated in footnote to table of daily discharge. Records only fair because of infrequent gage readings.

COOPERATION.—Gage-height record and three discharge measurements furnished by water commissioner for Big Lost River.

The record at this station represents a portion of the natural flow of Big Lost River and taken in conjunction with the record for west channel of Warm Spring Creek and east and west channels of Big Lost River will show the entire surface flow of Big Lost River which enters Mackay Reservoir a short distance below. For record from station on west channel of Warm Spring Creek and east and west channels of Big Lost River see pages 92, 80, and 82, respectively. For record of combined flow of both channels of Big Lost River and Warm Spring Creek see page 85.

*Discharge measurements of Warm Spring Creek (east channel) near Mackay, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 7 | 1.68 | 34.2 | Apr. 22 | 1.32 | 15.9 | July 4 | 1.47 | 22.3 |
| Nov. 25 | 1.59 | 32.9 | May 17 | 1.40 | 18.9 | Sept. 20 | 1.59 | 21.3 |
| Mar. 15 | 1.48 | 27.2 | May 24 | 1.69 | 41.5 | | | |
| Apr. 6 | 1.46 | 25.9 | June 18 | 1.43 | 17.6 | | | |

*Daily discharge, in second-feet, of Warm Spring Creek (east channel) near Mackay, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34 | 32 | 32 | 29 | 28 | 27 | 25 | 15 | 35 | 20 | 23 | 25 |
| 2 | 34 | 33 | 32 | 29 | 28 | 27 | 25 | 15 | 33 | 20 | 23 | 25 |
| 3 | 34 | 33 | 32 | 29 | 28 | 27 | 25 | 15 | 32 | 21 | 23 | 25 |
| 4 | 34 | 33 | 32 | 28 | 28 | 27 | 25 | 17 | 32 | 21 | 23 | 25 |
| 5 | 34 | 33 | 31 | 28 | 28 | 27 | 25 | 19 | 32 | 19 | 23 | 25 |
| 6 | 34 | 33 | 31 | 28 | 28 | 27 | 25 | 21 | 33 | 20 | 23 | 25 |
| 7 | 34 | 33 | 30 | 28 | 28 | 27 | 25 | 23 | 33 | 21 | 24 | 25 |
| 8 | 34 | 33 | 30 | 28 | 28 | 27 | 25 | 24 | 32 | 22 | 25 | 25 |
| 9 | 34 | 32 | 29 | 28 | 28 | 27 | 25 | 25 | 32 | 22 | 25 | 25 |
| 10 | 34 | 32 | 29 | 28 | 28 | 27 | 25 | 27 | 31 | 22 | 25 | 25 |
| 11 | 34 | 32 | 29 | 28 | 28 | 27 | 25 | 27 | 30 | 22 | 25 | 24 |
| 12 | 35 | 32 | 29 | 28 | 28 | 27 | 24 | 26 | 29 | 21 | 25 | 24 |
| 13 | 35 | 32 | 30 | 28 | 28 | 27 | 24 | 26 | 28 | 22 | 25 | 23 |
| 14 | 35 | 32 | 30 | 28 | 28 | 27 | 24 | 24 | 27 | 22 | 24 | 23 |
| 15 | 35 | 32 | 31 | 28 | 29 | 27 | 24 | 22 | 24 | 21 | 24 | 22 |
| 16 | 35 | 32 | 31 | 28 | 29 | 27 | 23 | 20 | 22 | 21 | 24 | 22 |
| 17 | 34 | 32 | 31 | 28 | 29 | 27 | 22 | 19 | 20 | 22 | 24 | 22 |
| 18 | 33 | 32 | 31 | 28 | 29 | 27 | 20 | 19 | 18 | 22 | 24 | 22 |
| 19 | 33 | 32 | 31 | 28 | 29 | 27 | 18 | 18 | 18 | 22 | 24 | 21 |
| 20 | 32 | 32 | 31 | 28 | 29 | 27 | 17 | 18 | 19 | 22 | 24 | 21 |
| 21 | 31 | 32 | 30 | 28 | 29 | 26 | 16 | 24 | 19 | 22 | 24 | 21 |
| 22 | 31 | 32 | 30 | 28 | 28 | 26 | 15 | 30 | 19 | 22 | 24 | 21 |
| 23 | 31 | 33 | 30 | 28 | 28 | 25 | 15 | 36 | 18 | 22 | 24 | 21 |
| 24 | 31 | 33 | 30 | 28 | 28 | 25 | 15 | 42 | 18 | 22 | 24 | 21 |
| 25 | 31 | 33 | 30 | 28 | 28 | 25 | 15 | 40 | 18 | 22 | 24 | 21 |
| 26 | 32 | 32 | 30 | 28 | 28 | 25 | 15 | 38 | 18 | 22 | 24 | 21 |
| 27 | 32 | 32 | 30 | 28 | 28 | 25 | 15 | 36 | 19 | 22 | 24 | 21 |
| 28 | 32 | 32 | 29 | 28 | 28 | 25 | 15 | 36 | 19 | 22 | 24 | 21 |
| 29 | 32 | 32 | 29 | 28 | ------ | 25 | 15 | 36 | 19 | 22 | 24 | 22 |
| 30 | 32 | 32 | 29 | 28 | ------ | 25 | 15 | 36 | 20 | 22 | 24 | 22 |
| 31 | 32 | ------ | 29 | 28 | ------ | 25 | ------ | 36 | ------ | 22 | 25 | ------ |

NOTE.—Discharge interpolated for days of missing gage heights.

*Monthly discharge of Warm Spring Creek (east channel) near Mackay, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 35 | 31 | 33.2 | 2,040 |
| November | 33 | 32 | 32.3 | 1,920 |
| December | 32 | 29 | 30.3 | 1,860 |
| January | 29 | 28 | 28.1 | 1,730 |
| February | 29 | 28 | 28.2 | 1,570 |
| March | 27 | 25 | 26.4 | 1,620 |
| April | 25 | 15 | 20.7 | 1,230 |
| May | 42 | 15 | 26.1 | 1,600 |
| June | 35 | 18 | 24.9 | 1,480 |
| July | 22 | 19 | 21.5 | 1,320 |
| August | 25 | 23 | 24.0 | 1,480 |
| September | 25 | 21 | 22.9 | 1,360 |
| The year | 42 | 15 | 26.6 | 19,200 |

### WARM SPRING CREEK (WEST CHANNEL) NEAR MACKAY, IDAHO

LOCATION.—In NE. ¼ sec. 5, T. 7 N., R. 23 E., 500 feet above junction with east channel of Warm Spring Creek, 3½ miles above Mackay Dam, above flow line of reservoir, and 7½ miles above Mackay, Custer County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 8, 1919, to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by employees of Utah Construction Co.

DISCHARGE MEASUREMENTS.—Made from suspension footbridge located just below gage or by wading.

CHANNEL AND CONTROL.—Bed composed chiefly of gravel. One channel at all stages. Control formed by well-defined gravel riffle; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded, from current-meter measurement, 1.12 feet May 24 (discharge, 121 second-feet); minimum stage, 0.68 foot April 28 to May 1 (discharge, 62 second-feet).

1919–1926: Maximum stage recorded, 3.38 feet June 12, 1921 (discharge, 411 second-feet); minimum discharge, 61 second-feet May 7, 1925.

ICE.—Stage-discharge relation practically unaffected by ice.

DIVERSIONS.—Practically entire flow diverted during irrigation season. Flow during summer represents return flow from irrigation above. Entire flow impounded in Mackay Reservoir below.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed several times during year. Rating curve well defined between 70 and 170 second-feet and fairly well defined above. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method. Records good.

COOPERATION.—Gage-height record and three discharge measurements furnished by water commissioner for Big Lost River.

The record at this station represents a portion of the natural flow of Big Lost River and, taken in conjunction with the record for east channel of Warm Spring Creek and the record for east and west channels of Big Lost River, will show practically the entire surface flow of Big Lost River which enters Mackay Reservoir a short distance below. For record from stations on east channel of Warm Spring Creek and on east and west channels of Big Lost River see pages 90, 80, and 82, respectively. For record of combined flow of both channels of Big Lost River and Warm Springs Creek see page 85.

*Discharge measurements of Warm Spring Creek (west channel) near Mackay, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 7 | 1.06 | 116 | Apr. 22 | 0.70 | 64 | June 18 | 0.78 | 73 |
| Nov. 25 | 1.02 | 111 | May 17 | .76 | 74 | July 4 | .80 | 80 |
| Mar. 15 | .94 | 104 | May 24 | 1.12 | 121 | Sept. 20 | .82 | 82 |
| Apr. 6 | .92 | 99 | | | | | | |

*Daily discharge, in second-feet, of Warm Spring Creek (west channel) near Mackay, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 116 | 108 | 110 | 109 | 101 | 103 | 100 | 62 | 105 | 79 | 74 | 82 |
| 2 | 116 | 109 | 110 | 109 | 100 | 103 | 100 | 64 | 101 | 79 | 74 | 86 |
| 3 | 114 | 110 | 110 | 109 | 100 | 103 | 100 | 66 | 104 | 78 | 74 | 90 |
| 4 | 113 | 108 | 110 | 108 | 100 | 103 | 100 | 68 | 101 | 79 | 74 | 88 |
| 5 | 113 | 109 | 110 | 108 | 100 | 103 | 100 | 73 | 99 | 79 | 75 | 88 |
| 6 | 117 | 110 | 110 | 108 | 100 | 103 | 100 | 75 | 100 | 78 | 74 | 90 |
| 7 | 116 | 110 | 110 | 108 | 101 | 103 | 100 | 79 | 103 | 79 | 75 | 90 |
| 8 | 114 | 110 | 109 | 108 | 101 | 103 | 100 | 94 | 103 | 80 | 75 | 88 |
| 9 | 112 | 110 | 109 | 108 | 101 | 103 | 97 | 94 | 103 | 80 | 74 | 88 |
| 10 | 112 | 110 | 108 | 108 | 103 | 103 | 96 | 92 | 101 | 79 | 77 | 87 |
| 11 | 113 | 110 | 108 | 108 | 104 | 103 | 94 | 95 | 101 | 79 | 77 | 86 |
| 12 | 114 | 110 | 109 | 106 | 105 | 103 | 91 | 92 | 99 | 79 | 78 | 86 |
| 13 | 116 | 109 | 109 | 106 | 104 | 104 | 87 | 90 | 96 | 79 | 77 | 86 |
| 14 | 116 | 109 | 108 | 106 | 104 | 103 | 86 | 78 | 92 | 79 | 77 | 86 |
| 15 | 116 | 109 | 108 | 105 | 104 | 103 | 83 | 75 | 83 | 79 | 77 | 86 |
| 16 | 114 | 109 | 108 | 104 | 104 | 101 | 75 | 74 | 77 | 77 | 75 | 84 |
| 17 | 113 | 109 | 108 | 104 | 103 | 103 | 72 | 74 | 77 | 77 | 75 | 82 |
| 18 | 113 | 108 | 108 | 104 | 104 | 103 | 72 | 73 | 74 | 77 | 75 | 80 |
| 19 | 110 | 109 | 109 | 104 | 104 | 103 | 70 | 72 | 75 | 77 | 77 | 80 |
| 20 | 108 | 112 | 108 | 104 | 103 | 103 | 67 | 74 | 74 | 75 | 77 | 80 |
| 21 | 108 | 112 | 108 | 104 | 103 | 101 | 66 | 75 | 73 | 77 | 75 | 82 |
| 22 | 108 | 110 | 108 | 104 | 103 | 101 | 64 | 92 | 73 | 77 | 75 | 80 |
| 23 | 109 | 110 | 109 | 104 | 103 | 100 | 63 | 104 | 74 | 77 | 80 | 79 |
| 24 | 109 | 110 | 109 | 104 | 103 | 100 | 63 | 110 | 74 | 77 | 79 | 79 |
| 25 | 109 | 110 | 109 | 103 | 101 | 100 | 63 | 116 | 73 | 77 | 79 | 83 |
| 26 | 108 | 110 | 109 | 103 | 101 | 100 | 63 | 112 | 74 | 75 | 80 | 90 |
| 27 | 108 | 110 | 109 | 103 | 101 | 100 | 63 | 110 | 75 | 74 | 82 | 87 |
| 28 | 106 | 110 | 109 | 103 | 101 | 100 | 62 | 110 | 75 | 74 | 82 | 87 |
| 29 | 106 | 110 | 108 | 103 | ------- | 97 | 62 | 114 | 75 | 74 | 82 | 88 |
| 30 | 106 | 110 | 108 | 101 | ------- | 100 | 62 | 110 | 78 | 74 | 83 | 87 |
| 31 | 106 | ------- | 108 | 101 | ------- | 100 | ------- | 106 | ------- | 73 | 82 | ------ |

*Monthly discharge of Warm Spring Creek (west channel) near Mackay, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 117 | 106 | 112 | 6,890 |
| November | 112 | 108 | 110 | 6,550 |
| December | 110 | 108 | 109 | 6,700 |
| January | 109 | 101 | 105 | 6,460 |
| February | 105 | 100 | 102 | 5,660 |
| March | 104 | 97 | 102 | 6,270 |
| April | 100 | 62 | 80.7 | 4,800 |
| May | 116 | 62 | 87.8 | 5,400 |
| June | 105 | 73 | 87.1 | 5,180 |
| July | 80 | 73 | 77.3 | 4,750 |
| August | 83 | 74 | 77.1 | 4,740 |
| September | 90 | 79 | 85.2 | 5,070 |
| The year | 117 | 62 | 94.5 | 68,500 |

### SHARP DITCH NEAR MACKAY, IDAHO

LOCATION.—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, Custer County.

RECORDS AVAILABLE.—June 6, 1912, to October 24, 1914, and March 24, 1919, to September 30, 1926.

GAGE.—Vertical staff on right bank; installed April 20, 1920; read by water master or employees of Utah Construction Co.

DISCHARGE MEASUREMENTS.—Made from footbridge or by wading.

CHANNEL AND CONTROL.—Control composed of gravel and sand; poorly defined. Channel congested at times by moss, weeds, and silt deposits.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from current-meter measurement, 1.08 feet at 5 to 5.30 p. m. May 17 (discharge, 24.8 second-feet); ditch probably dry except for leakage through head gates during period of no record.

1912–1914, 1919–1926: Maximum stage recorded, 2.50 feet June 23, 1921 (discharge, 42 second-feet); ditch dry during winters and on days when water is shut off.

ICE.—None. Winter flow is probably limited to leakage through head gates.

DIVERSIONS.—Station above all diversions.

REGULATION.—Flow controlled by head gate and by a small wasteway above gage.

ACCURACY.—Stage-discharge relation affected by growth by moss and silt deposits. Rating curve well defined. Gage read to hundredths once daily. Daily discharge ascertained by shifting-control method. Records fair.

COOPERATION.—Gage-height record and three discharge measurements furnished by water commissioner for Big Lost River.

Sharp ditch diverts from east side of Big Lost River in sec. 12, T. 7 N., R. 23 E., a mile above heading of Streeter ditch and half a mile below Mackay Reservoir. The water is used for irrigation on land northwest of Mackay and above Streeter ditch.

*Discharge measurements of Sharp ditch near Mackay, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 7 | 0.84 | 13.6 | May 16 | 0.94 | 21.9 | July 5 | 0.90 | 20.8 |
| Apr. 6 | −.45 | *.2 | May 17 | 1.08 | 24.8 | Aug. 12 | .95 | 19.5 |
| Apr. 22 | .82 | 21.7 | June 17 | 1.00 | 22.7 | Sept. 21 | .92 | 20.2 |

*Estimated.

*Daily discharge, in second-feet, of Sharp ditch near Mackay, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | 22 | 22 | 20 | 20 | 20 |
| 2 | | | | | | 22 | 23 | 20 | 20 | 20 |
| 3 | | | | | | 22 | 23 | 20 | 20 | 20 |
| 4 | 14 | | | | 0.2 | 23 | 23 | 20 | 20 | 20 |
| 5 | | 3 | | | | 23 | 23 | 20 | 20 | 19 |
| 6 | | | | | | 23 | 22 | 20 | 21 | 19 |
| 7 | 14 | | | | | 23 | 22 | 22 | 21 | 19 |
| 8 | | | 5 | 3 | | 23 | 22 | 22 | 21 | 19 |
| 9 | 13 | | | | | 23 | 22 | 22 | 20 | 19 |
| 10 | | | | | 6 | 22 | 22 | 22 | 20 | 19 |
| 11 | | | | | | 22 | 23 | 22 | 20 | 19 |
| 12 | 12 | | | | | 22 | 23 | 22 | 20 | 19 |
| 13 | | | | | | 22 | 23 | 22 | 20 | 19 |
| 14 | | | | | 10 | 22 | 23 | 22 | 20 | 19 |
| 15 | 11 | | | | | 22 | 23 | 22 | 20 | 19 |
| 16 | | 5 | | | 14 | 22 | 23 | 22 | 20 | 19 |
| 17 | | | | | 17 | 24 | 23 | 22 | 20 | 19 |
| 18 | 10 | | | | 18 | 23 | 22 | 21 | 20 | 19 |
| 19 | | | | | 20 | 23 | 22 | 21 | 20 | 19 |
| 20 | 8 | | | | 21 | 23 | 22 | 21 | 20 | 19 |
| 21 | 4 | | | | 22 | 23 | 22 | 21 | 20 | 20 |
| 22 | | | | | 22 | 23 | 18 | 20 | 20 | 19 |
| 23 | | | | | 22 | 24 | 23 | 20 | 20 | 19 |
| 24 | | | 3 | | 22 | 24 | 22 | 20 | 20 | 19 |
| 25 | | | | | 23 | 24 | 22 | 21 | 20 | 18 |
| 26 | 7 | 4 | | | 23 | 22 | 22 | 21 | 20 | 17 |
| 27 | | | | | 23 | 22 | 22 | 22 | 20 | 17 |
| 28 | | | | | 23 | 22 | 20 | 21 | 20 | 17 |
| 29 | | | | | 23 | 22 | 20 | 20 | 20 | 17 |
| 30 | | | | | 22 | 22 | 20 | 21 | 20 | 17 |
| 31 | | | | | | 22 | | 21 | 20 | |

NOTE.—On basis of data furnished by water commissioner for Big Lost River, discharge estimated Oct. 1–6, 8–31, Nov. 1 to Jan. 15, Apr. 1–16; interpolated Apr. 18–20, 23–26, Sept. 2, 4. No flow reported Jan. 16 to Mar. 31 except possibly for small leakage through head gates. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Sharp ditch near Mackay, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | | | 10.2 | 627 |
| November | | | 4.0 | 240 |
| December | | | 4.0 | 250 |
| January 1–15 | | | 3.0 | 89 |
| April | 23 | | 12.7 | 756 |
| May | 24 | 22 | 22.6 | 1,390 |
| June | 23 | 18 | 22.1 | 1,320 |
| July | 22 | 20 | 21.1 | 1,300 |
| August | 21 | 20 | 20.1 | 1,240 |
| September | 20 | 17 | 18.8 | 1,120 |

### PORTNEUF RIVER AT TOPAZ, IDAHO

LOCATION.—In sec. 23, T. 9 S., R. 37 E., at Oregon Short Line Railroad bridge one-fourth mile west of Topaz flag station, Bannock County, 1¼ miles above diversion dam of Portneuf-Marsh Valley Canal Co., and 6 miles southeast of McCammon.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—January 12, 1913, to September 30, 1915; July 20, 1919, to September 30, 1926.

GAGE.—Enamel-faced vertical staff fastened to abandoned bridge pile on left bank at upstream side of railroad bridge; read by Mrs. Selma Hendricks and Mrs. W. S. Henson.

DISCHARGE MEASUREMENTS.—Made from cable 500 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. Hardpan and conglomerate formation 700 feet below gage forms control; affected by moss growth.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.96 feet May 6 (discharge, 322 second-feet); minimum stage, 0.94 foot September 11, 13, 23–28 (discharge, 121 second-feet).

1913–1915, 1919–1926: Maximum discharge recorded, 902 second-feet on April 3, 1913 (gage height, 6.1 feet); minimum stage, 0.92 foot August 17 and 30, 1919 (discharge, 116 second-feet).

ICE.—Stage-discharge relation seldom affected by ice because of inflow of warm springs.

DIVERSIONS.—Numerous ranch diversions above. Stored water from Portneuf-Marsh Valley Canal Co.'s reservoir is diverted for irrigation 1¼ miles below.

REGULATION.—Water is stored during winter and spring in the Portneuf-Marsh Valley Canal Co.'s reservoir near Chesterfield and released during irrigation season.

ACCURACY.—Stage-discharge relation permanent except as affected by moss during May, June, and July. Rating curve well defined. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table except May 1 to July 20, when shifting-control method was used. Records good.

*Discharge measurements of Portneuf River at Topaz, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 5 | 1.87 | 298 | Apr. 27 | 1.72 | 266 | July 27 | 1.44 | 218 |
| Mar. 23 | 1.44 | 216 | May 22 | 1.56 | 227 | Sept. 17 | .96 | 125 |
| Apr. 27 | 1.73 | 277 | June 16 | 1.68 | 252 | | | |

*Daily discharge, in second-feet, of Portneuf River at Topaz, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 170 | 180 | 190 | 170 | 170 | 210 | 220 | 270 | 260 | 220 | 170 | 124 |
| 2 | 160 | 210 | 210 | 170 | 170 | 210 | 220 | 280 | 240 | 230 | 170 | 124 |
| 3 | 160 | 200 | 190 | 170 | 170 | 230 | 210 | 270 | 240 | 220 | 170 | 122 |
| 4 | 160 | 190 | 190 | 170 | 170 | 270 | 210 | 270 | 260 | 220 | 170 | 122 |
| 5 | 160 | 190 | 190 | 170 | 180 | 302 | 270 | 312 | 270 | 220 | 151 | 122 |
| 6 | 170 | 180 | 180 | 170 | 180 | 230 | 280 | 322 | 270 | 230 | 151 | 124 |
| 7 | 170 | 180 | 190 | 170 | 190 | 210 | 280 | 312 | 260 | 230 | 170 | 124 |
| 8 | 170 | 180 | 180 | 170 | 190 | 230 | 280 | 312 | 260 | 230 | 180 | 124 |
| 9 | 170 | 180 | 180 | 160 | 210 | 240 | 260 | 260 | 260 | 230 | 190 | 124 |
| 10 | 170 | 190 | 180 | 160 | 200 | 250 | 250 | 250 | 270 | 230 | 240 | 124 |
| 11 | 190 | 190 | 180 | 160 | 190 | 250 | 230 | 240 | 280 | 220 | 210 | 121 |
| 12 | 200 | 190 | 180 | 160 | 190 | 250 | 230 | 230 | 270 | 230 | 170 | 122 |
| 13 | 200 | 190 | 180 | 160 | 180 | 312 | 230 | 220 | 270 | 240 | 170 | 121 |
| 14 | 190 | 190 | 170 | 170 | 180 | 312 | 220 | 210 | 280 | 230 | 170 | 124 |
| 15 | 190 | 180 | 180 | 170 | 180 | 302 | 230 | 210 | 260 | 230 | 160 | 124 |
| 16 | 180 | 180 | 180 | 170 | 170 | 291 | 240 | 250 | 250 | 220 | 151 | 124 |
| 17 | 180 | 180 | 180 | 170 | 170 | 270 | 250 | 240 | 240 | 230 | 151 | 124 |
| 18 | 180 | 180 | 180 | 170 | 190 | 250 | 250 | 230 | 260 | 220 | 142 | 124 |
| 19 | 180 | 180 | 180 | 170 | 220 | 230 | 260 | 230 | 240 | 220 | 151 | 124 |
| 20 | 180 | 180 | 180 | 170 | 200 | 230 | 291 | 240 | 240 | 220 | 142 | 124 |

*Daily discharge, in second-feet, of Portneuf River at Topaz, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 180 | 180 | 180 | 170 | 180 | 230 | 270 | 230 | 250 | 210 | 142 | 124 |
| 22 | 180 | 180 | 180 | 170 | 180 | 220 | 312 | 230 | 250 | 210 | 142 | 124 |
| 23 | 180 | 180 | 180 | 170 | 170 | 220 | 302 | 240 | 230 | 210 | 132 | 121 |
| 24 | 180 | 180 | 180 | 170 | 180 | 210 | 291 | 250 | 230 | 210 | 128 | 121 |
| 25 | 180 | 180 | 180 | 170 | 170 | 210 | 291 | 250 | 230 | 210 | 124 | 121 |
| 26 | 180 | 180 | 180 | 170 | 180 | 200 | 280 | 250 | 230 | 200 | 124 | 121 |
| 27 | 180 | 190 | 180 | 170 | 190 | 200 | 270 | 260 | 220 | 220 | 132 | 121 |
| 28 | 180 | 190 | 170 | 170 | 200 | 200 | 270 | 280 | 220 | 210 | 124 | 121 |
| 29 | 180 | 180 | 170 | 170 | ------- | 210 | 270 | 280 | 220 | 200 | 128 | 142 |
| 30 | 180 | 180 | 160 | 170 | ------- | 220 | 270 | 280 | 220 | 180 | 124 | 151 |
| 31 | 180 | ------- | 160 | 170 | ------- | 230 | ------- | 270 | ------- | 170 | 124 | ------ |

*Monthly discharge of Portneuf River at Topaz, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 200 | 160 | 178 | 10,900 |
| November | 210 | 180 | 185 | 11,000 |
| December | 210 | 160 | 180 | 11,100 |
| January | 170 | 160 | 168 | 10,300 |
| February | 220 | 170 | 184 | 10,200 |
| March | 312 | 200 | 240 | 14,800 |
| April | 312 | 210 | 258 | 15,400 |
| May | 322 | 210 | 257 | 15,800 |
| June | 280 | 220 | 249 | 14,800 |
| July | 240 | 170 | 218 | 13,400 |
| August | 240 | 124 | 155 | 9,530 |
| September | 151 | 121 | 124 | 7,380 |
| The year | 322 | 121 | 200 | 145,000 |

### PORTNEUF RIVER AT POCATELLO, IDAHO

LOCATION.—In sec. 27, T. 6 S., R. 34 E., at highway bridge at foot of Carson Street, in west end of Pocatello, Bannock County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—August 31, 1911, to September 30, 1926. May 18, 1897, to October 14, 1899, at site 1 mile upstream.

GAGE.—Vertical staff attached to pile of highway bridge near left bank; installed September 8, 1919; read by W. S. Hutson.

DISCHARGE MEASUREMENTS.—Made from highway bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of rocks and boulders; very rough. One channel except at extremely high stages when left bank is overflowed. Control shifts within well-defined limits.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.85 feet April 21 (discharge, 601 second-feet); minimum discharge, 54 second-feet June 9.

1911–1926: Maximum stage recorded, 7.8 feet May 30, 1917 (discharge, in excess of 2,000 second-feet during period May 13 to June 14, 1917, when left bank was overflowed); minimum stage, 1.92 feet June 24 and 28, 1919 (discharge, 44 second-feet).

1897–1899: Maximum stage recorded, 12.80 feet May 18, 1897 (discharge, 1,880 second-feet); minimum stage, 6.10 feet July 4–11, 13, 17, and 18, 1898 (discharge, 14 second-feet).

ICE.—Stage-discharge relation seriously affected by ice during severe winters.

DIVERSIONS.—Numerous ranch diversions above gage. The largest single diversion is canal of Portneuf-Marsh Valley Canal Co., which irrigates land near Downey.

REGULATION.—None below head of Portneuf-Marsh Valley Canal Co.'s canal. Storage reservoir of company near Chesterfield has capacity of about 28,000 acre-feet.

ACCURACY.—Stage-discharge relation changed several times during year; affected by ice January 12–18, 23–31, and February 1 and 2. Rating curve fairly well defined below 600 second-feet. Gage read to half-tenths several times a week. Daily discharge ascertained by shifting-control method except as indicated in footnote to table of daily discharge. Records fair.

*Discharge measurements of Portneuf River at Pocatello, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 4 | 4.28 | 419 | May 22 | 2.49 | 116 | Sept. 18 | 2.80 | 93 |
| Mar. 21 | 4.22 | 426 | June 16 | 2.45 | 80 | | | |
| Apr. 29 | 4.18 | 431 | July 26 | 2.60 | 87 | | | |

*Daily discharge, in second-feet, of Portneuf River at Pocatello, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | a 228 | a 280 | a 287 | 238 | 240 | 329 | 351 | 373 | a 78 | 71 | a 85 | a 87 |
| 2 | 228 | 287 | a 287 | a 235 | | a 360 | a 356 | a 351 | 72 | a 72 | 85 | 90 |
| 3 | a 228 | a 287 | a 287 | a 231 | 267 | a 390 | a 362 | 329 | a 66 | 72 | a 85 | a 94 |
| 4 | 228 | a 287 | 287 | 228 | a 267 | 420 | a 368 | a 322 | 59 | 71 | a 86 | 97 |
| 5 | a 233 | 287 | a 287 | a 223 | a 267 | a 446 | 373 | a 315 | a 58 | a 71 | a 87 | 97 |
| 6 | 238 | a 287 | a 287 | a 218 | a 267 | 471 | a 391 | 308 | a 58 | a 70 | 87 | 97 |
| 7 | a 242 | 287 | 287 | a 214 | 267 | 373 | a 409 | a 288 | 57 | 70 | a 95 | a 97 |
| 8 | 247 | a 287 | a 282 | 209 | a 320 | a 373 | a 427 | 267 | a 56 | a 72 | a 103 | 97 |
| 9 | a 252 | 287 | a 277 | a 209 | 373 | 373 | 445 | a 248 | 54 | a 74 | 111 | a 97 |
| 10 | a 257 | a 287 | a 272 | a 209 | a 362 | a 397 | a 462 | 228 | a 79 | 75 | a 111 | 97 |
| 11 | a 262 | 287 | 267 | 209 | a 351 | a 421 | a 480 | a 218 | 104 | a 78 | 111 | 97 |
| 12 | 267 | a 287 | a 267 | | a 340 | 445 | 497 | 209 | a 96 | 80 | a 111 | a 97 |
| 13 | a 274 | 287 | 267 | | 329 | a 471 | 497 | 182 | 89 | a 80 | a 111 | 97 |
| 14 | a 280 | a 287 | a 267 | | a 308 | 497 | 497 | a 168 | 81 | 79 | 111 | a 97 |
| 15 | 287 | a 287 | a 267 | 190 | 287 | 497 | a 514 | a 154 | a 80 | a 76 | a 111 | a 97 |
| 16 | a 287 | 287 | a 267 | | a 287 | 497 | a 532 | 140 | 80 | a 74 | 111 | 97 |
| 17 | 287 | a 287 | 267 | | a 287 | 523 | 549 | 140 | 74 | 71 | 104 | a 97 |
| 18 | a 287 | 287 | a 267 | | a 287 | 497 | 575 | 125 | a 68 | a 80 | 97 | 97 |
| 19 | 287 | a 280 | a 267 | 191 | 287 | 471 | a 584 | 118 | 61 | 89 | 97 | a 97 |
| 20 | a 280 | a 274 | 267 | a 191 | a 287 | a 446 | a 592 | 118 | 74 | a 92 | 97 | 97 |
| 21 | a 274 | 267 | a 264 | a 191 | a 287 | 420 | 601 | 111 | a 74 | 96 | 104 | a 97 |
| 22 | 267 | a 267 | a 262 | 191 | a 287 | a 428 | a 592 | 104 | 74 | a 96 | 111 | 97 |
| 23 | a 277 | 267 | a 260 | | a 287 | a 437 | a 584 | a 98 | a 73 | a 97 | 111 | a 99 |
| 24 | 287 | a 267 | 257 | | a 287 | 445 | 575 | 93 | a 72 | 97 | 111 | a 102 |
| 25 | a 277 | a 267 | a 257 | | 287 | a 426 | a 562 | a 92 | 71 | a 92 | 111 | 104 |
| 26 | 267 | a 267 | a 257 | 210 | a 294 | a 407 | 549 | 92 | a 71 | 87 | 104 | a 104 |
| 27 | a 267 | 267 | a 257 | | a 301 | a 389 | 497 | a 90 | 71 | a 86 | 97 | 104 |
| 28 | 267 | 287 | 257 | | 308 | a 370 | a 458 | 87 | a 71 | a 85 | 90 | a 104 |
| 29 | a 267 | a 287 | a 252 | | ------- | 351 | 420 | a 86 | 71 | 84 | 84 | 104 |
| 30 | 267 | 287 | a 247 | | ------- | a 351 | a 396 | 85 | a 71 | a 84 | a 84 | a 104 |
| 31 | a 274 | ------- | a 242 | | ------- | a 351 | ------- | 84 | ------- | a 84 | 84 | ------- |

a Interpolated.

NOTE.—Because of ice and missing gage heights discharge for Jan. 12–18 and Jan. 23 to Feb. 2 estimated on basis of observer's notes and weather records. Braced figures represent estimated mean discharge for periods indicated.

*Monthly discharge of Portneuf River at Pocatello, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 287 | 228 | 264 | 16,200 |
| November | 287 | 267 | 281 | 16,700 |
| December | 287 | 242 | 268 | 16,500 |
| January | 238 | ---------- | 207 | 12,700 |
| February | 373 | ---------- | 295 | 16,400 |
| March | 523 | 329 | 422 | 25,900 |
| April | 601 | 351 | 483 | 28,700 |
| May | 373 | 84 | 181 | 11,100 |
| June | 104 | 54 | 72.1 | 4,290 |
| July | 97 | 70 | 80.8 | 4,970 |
| August | 111 | 84 | 99.6 | 6,120 |
| September | 104 | 87 | 98.0 | 5,830 |
| The year | 601 | 54 | 229 | 165,000 |

### NORTH SIDE MINIDOKA CANAL NEAR MINIDOKA, IDAHO

LOCATION.—In sec. 1, T. 9 S., R. 25 E., 650 feet below Minidoka Dam and 6 miles south of Minidoka, Minidoka County.

RECORDS AVAILABLE.—May 1, 1909, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank; inspected by employees of the United States Bureau of Reclamation.

DISCHARGE MEASUREMENTS.—Made from suspension footbridge at gage.

CHANNEL AND CONTROL.—Rock cut; practically permanent but rough.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 9.51 feet at 9 p. m. June 8 (discharge, 1,500 second-feet). No flow at various times when head gates were closed.

1909–1926: Maximum discharge recorded, 1,520 second-feet May 20, 1914 (gage height, 9.44 feet); no flow at various times when head gates were closed.

ICE.—Observations discontinued during winter.

DIVERSIONS.—No diversions above station and none below close enough to affect stage-discharge relation.

REGULATION.—Flow regulated by head gates at Minidoka Dam.

ACCURACY.—Stage-discharge relation not permanent. Rating curve well defined. Operation of water-stage recorder satisfactory. Discharge ascertained by shifting-control method. Records excellent.

North Side Minidoka Canal diverts water from right side of Snake River in sec. 1, T. 9 S., R. 25 E., for irrigation of land in North Side Minidoka project of the United States Bureau of Reclamation. Project comprises about 20 miles of main canal and 260 miles of laterals.

*Discharge measurements of North Side Minidoka Canal near Minidoka, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 23 | 4.36 | 408 | Apr. 29 | 9.40 | 1,460 | Aug. 16 | 8.13 | 1,190 |
| Apr. 13 | 5.76 | 654 | June 26 | 9.46 | 1,480 | Sept. 16 | 3.27 | 246 |
| Apr. 18 | 7.89 | 1,100 | Aug. 14 | 7.93 | 1,150 | Sept. 18 | 3.25 | 243 |

*Daily discharge, in second-feet, of North Side Minidoka Canal near Minidoka Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 565 | 413 | ------- | 461 | 1,490 | 1,490 | 1,440 | 1,150 | 0 |
| 2 | 564 | 412 | ------- | 461 | 1,490 | 1,490 | 1,490 | 1,150 | 0 |
| 3 | 564 | 412 | ------- | 461 | 1,490 | 1,490 | 1,480 | 1,150 | 0 |
| 4 | 564 | 412 | ------- | 463 | 1,490 | 1,490 | 1,440 | 1,150 | 0 |
| 5 | 560 | 380 | ------- | 463 | 1,490 | 1,490 | 1,440 | 1,140 | 333 |
| 6 | 556 | 361 | ------- | 495 | 1,490 | 1,490 | 1,440 | 1,150 | 839 |
| 7 | 555 | 361 | ------- | 521 | 1,490 | 1,490 | 1,440 | 1,150 | 995 |
| 8 | 558 | 361 | ------- | 521 | 1,480 | 1,490 | 1,440 | 1,140 | 1,110 |
| 9 | 560 | 361 | ------- | 521 | 1,490 | 1,490 | 1,390 | 1,150 | 1,140 |
| 10 | 560 | 364 | ------- | 551 | 1,490 | 1,490 | 1,280 | 1,150 | 1,130 |
| 11 | 558 | 364 | ------- | 578 | 1,490 | 1,490 | 1,190 | 1,150 | 803 |
| 12 | 556 | 359 | ------- | 578 | 1,490 | 1,470 | 1,150 | 1,150 | 127 |
| 13 | 556 | 358 | ------- | 625 | 1,490 | 1,440 | 1,150 | 1,150 | 124 |
| 14 | 555 | 359 | ------- | 694 | 1,490 | 1,400 | 1,150 | 1,150 | 153 |
| 15 | 555 | 359 | ------- | 783 | 1,490 | 1,350 | 1,150 | 1,150 | 224 |
| 16 | 555 | 359 | ------- | 878 | 1,490 | 1,300 | 1,180 | 1,180 | 243 |
| 17 | 517 | 359 | ------- | 1,020 | 1,490 | 1,250 | 1,200 | 1,190 | 212 |
| 18 | 487 | 359 | ------- | 1,110 | 1,490 | 1,250 | 1,200 | 1,190 | 229 |
| 19 | 485 | 359 | ------- | 1,230 | 1,490 | 1,250 | 1,190 | 1,190 | 242 |
| 20 | 448 | 359 | 148 | 1,310 | 1,490 | 1,240 | 1,190 | 1,160 | 242 |
| 21 | 412 | 359 | 148 | 1,320 | 1,490 | 1,250 | 1,200 | 1,130 | 243 |
| 22 | 412 | 359 | 212 | 1,380 | 1,490 | 1,250 | 1,190 | 1,150 | 241 |
| 23 | 410 | 359 | 312 | 1,460 | 1,480 | 1,280 | 1,200 | 1,140 | 267 |
| 24 | 409 | 359 | 352 | 1,480 | 1,490 | 1,320 | 1,200 | 1,140 | 294 |
| 25 | 405 | 358 | 352 | 1,480 | 1,490 | 1,400 | 1,200 | 1,140 | 292 |
| 26 | 405 | 358 | 388 | 1,470 | 1,490 | 1,480 | 1,200 | 1,140 | 292 |
| 27 | 410 | 358 | 410 | 1,470 | 1,490 | 1,490 | 1,180 | 1,140 | 293 |
| 28 | 417 | 356 | 412 | 1,480 | 1,490 | 1,490 | 1,150 | 943 | 292 |
| 29 | 417 | 356 | 410 | 1,480 | 1,490 | 1,490 | 1,150 | 0 | 294 |
| 30 | 415 | 356 | 410 | 1,480 | 1,490 | 1,480 | 1,150 | 0 | 294 |
| 31 | 415 | ------- | 441 | ------- | 1,490 | ------- | 1,160 | 0 | ------- |

NOTE.—Canal dry from Dec. 1 to Mar. 19.

*Monthly discharge of North Side Minidoka Canal near Minidoka, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 565 | 405 | 497 | 30,600 |
| November | 413 | 356 | 367 | 21,800 |
| March 20-31 | 441 | 148 | 333 | 7,930 |
| April | 1,480 | 461 | 941 | 56,000 |
| May | 1,490 | 1,480 | 1,490 | 91,600 |
| June | 1,490 | 1,240 | 1,410 | 83,900 |
| July | 1,490 | 1,150 | 1,260 | 77,500 |
| August | 1,190 | 0 | 1,030 | 63,300 |
| September | 1,140 | 0 | 365 | 21,700 |

### SOUTH SIDE MINIDOKA CANAL NEAR MINIDOKA, IDAHO

LOCATION.—In sec. 12, T. 9 S., R. 25 E., Cassia County, 300 yards below head gates at Minidoka Dam and 6 miles south of Minidoka.

RECORDS AVAILABLE.—April 21, 1909, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank; inspected by T. E. Culley.

DISCHARGE MEASUREMENTS.—Made from suspension footbridge a few feet above gage.

CHANNEL AND CONTROL.—Canal section in earth; subject to shift. Stage-discharge relation affected by growth of aquatic plants.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 5.93 feet from 3 to 7 a. m. July 9 (discharge, 1,050 second-feet); no flow at various times during year.

1909–1926: Maximum stage recorded, 5.72 feet July 18, 1921 (discharge, 1,100 second-feet); no flow during periods of no record each year.

ICE.—Observations discontinued during winter.

DIVERSIONS.—No diversions above gage.

REGULATION.—Flow controlled by head gates at Minidoka Dam.

ACCURACY.—Stage-discharge relation not permanent. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method. Records good.

COOPERATION.—Gage-height records and four discharge measurements furnished by United States Bureau of Reclamation.

South Side Minidoka Canal diverts water from the left bank of Snake River in sec. 1, T. 9 S., R. 25 E., for irrigation of land in South Side Minidoka project of the United States Bureau of Reclamation. Project comprises about 13 miles of main canal and about 297 miles of laterals.

*Discharge measurements of South Side Minidoka Canal near Minidoka, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 22 | 2.57 | 305 | June 22 | 5.74 | 1,010 | Aug. 16 | 5.12 | 847 |
| Oct. 27 | 2.67 | 303 | June 26 | 5.89 | 1,050 | Sept. 1 | 4.11 | 564 |
| Apr. 13 | 2.36 | 281 | Do | 5.84 | 1,020 | Sept. 16 | 1.49 | 149 |
| Apr. 18 | 3.36 | 494 | July 16 | 5.72 | 986 | | | |
| May 22 | 5.60 | 1,020 | Aug. 13 | 5.04 | 843 | | | |

*Daily discharge, in second-feet, of South Side Minidoka Canal near Minidoka, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | 261 | 288 | ------- | 1,060 | 1,030 | 1,040 | 965 | 564 |
| 2 | 246 | 291 | ------- | 1,060 | 1,040 | 1,030 | 942 | 560 |
| 3 | 246 | 291 | 65 | 1,040 | 1,040 | 1,040 | 939 | 562 |
| 4 | 245 | 291 | 138 | 1,050 | 1,040 | 1,040 | 945 | 566 |
| 5 | 245 | 291 | 277 | 1,060 | 1,040 | 1,040 | 942 | 566 |
| 6 | 281 | 289 | 253 | 1,060 | 1,030 | 1,040 | 953 | 626 |
| 7 | 309 | 291 | 251 | 1,060 | 1,020 | 1,040 | 936 | 674 |
| 8 | 313 | 291 | 253 | 1,060 | 1,020 | 1,040 | 927 | 643 |
| 9 | 314 | 291 | 253 | 1,050 | 1,030 | 1,040 | 845 | 614 |
| 10 | 313 | 291 | 254 | 1,030 | 1,030 | 1,010 | 859 | 614 |
| 11 | 311 | 121 | 256 | 1,020 | 1,020 | 991 | 865 | 573 |
| 12 | 311 | 0 | 257 | 1,030 | 1,020 | 939 | 859 | 527 |
| 13 | 311 | 0 | 280 | 1,020 | 1,020 | 939 | 837 | 529 |
| 14 | 311 | 0 | 316 | 1,030 | 1,020 | 945 | 845 | 455 |
| 15 | 311 | 0 | 383 | 1,030 | 1,020 | 959 | 848 | 187 |
| 16 | 311 | 0 | 412 | 1,020 | 997 | 985 | 854 | 139 |
| 17 | 309 | 0 | 461 | 1,020 | 982 | 994 | 854 | 114 |
| 18 | 309 | 160 | 480 | 1,030 | 997 | 1,020 | 845 | 133 |
| 19 | 309 | 165 | 503 | 1,040 | 985 | 1,020 | 837 | 152 |
| 20 | 309 | 172 | 555 | 1,040 | 977 | 1,030 | 834 | 152 |
| 21 | 309 | 172 | 614 | 1,050 | 991 | 1,040 | 831 | 149 |
| 22 | 309 | 172 | 677 | 1,040 | 1,010 | 1,040 | 840 | 146 |
| 23 | 311 | 172 | 735 | 1,020 | 1,010 | 1,040 | 837 | 140 |
| 24 | 311 | 172 | 799 | 1,030 | 1,010 | 1,050 | 831 | 140 |
| 25 | 311 | 172 | 829 | 1,040 | 1,030 | 1,030 | 837 | 139 |
| 26 | 309 | 175 | 829 | 1,040 | 1,040 | 962 | 845 | 140 |
| 27 | 299 | 172 | 893 | 1,040 | 1,040 | 962 | 840 | 142 |
| 28 | 296 | 172 | 956 | 1,040 | 1,040 | 953 | 735 | 145 |
| 29 | 291 | 172 | 1,010 | 1,030 | 1,040 | 945 | 573 | 148 |
| 30 | 291 | ------- | 1,040 | 1,040 | 1,040 | 956 | 566 | 151 |
| 31 | 289 | ------- | ------- | 1,030 | ------- | 971 | 569 | ------- |

NOTE.—No record obtained Nov. 29 to Apr. 2, 1926; canal gates supposedly closed.

*Monthly discharge of South Side Minidoka Canal near Minidoka, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 314 | 245 | 297 | 18,300 |
| November | 291 | 0 | 175 | 10,100 |
| April | 1,040 | 65 | 501 | 27,800 |
| May | 1,060 | 1,020 | 1,040 | 64,000 |
| June | 1,040 | 977 | 1,020 | 60,700 |
| July | 1,050 | 939 | 1,000 | 61,500 |
| August | 965 | 566 | 840 | 51,600 |
| September | 674 | 114 | 346 | 20,600 |

### GOOSE CREEK ABOVE TRAPPER CREEK, NEAR OAKLEY, IDAHO

LOCATION.—In sec. 13, T. 15 S., R. 21 E., 5 miles above Trapper Creek and about 10 miles south of Oakley, Cassia County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 29, 1911, to September 30, 1916; March 27, 1919, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank; inspected by employees of Oakley Canal Co.

DISCHARGE MEASUREMENTS.—Made from cable 250 feet above gage or by wading. Since summer of 1921 flow has been slightly augmented by flow of artesian water from well of West Pearl Oil & Gas Co., 2 miles above station.

CHANNEL AND CONTROL.—Bed composed of rock overlain with gravel and silt. Control fairly well defined; shifts occasionally. Banks high and not likely to be overflowed.

EXTREMES OF DISCHARGE.—Maximum discharge, 97 second-feet from 1 to 7 p. m. April 9; minimum stage recorded, 1.48 feet at 3 a. m. August 31 (discharge, 5.0 second-feet). Lower flow may have occurred during winter period of no record.

1911–1916, 1919–1926: Maximum stage recorded, from water-stage recorder, 5.23 feet at 9 a. m. May 18, 1921 (discharge, 670 second-feet); minimum stage, 1.19 feet at 9 a. m. August 13, 1915 (discharge, 1.1 second-feet).

ICE.—Stage-discharge relation seriously affected by ice. Observations discontinued during winter.

DIVERSIONS.—Several small canals and ditches divert above station for irrigation chiefly of lands belonging to Utah Construction Co.

REGULATION.—None except that due to diversions.

ACCURACY.—Stage-discharge relation changed March 16–18. Two rating curves used; one from October 1 to December 14 is well defined below 150 second-feet, and the other from March 19 to September 30 is well defined below 100 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph except as indicated in footnote to table of daily discharge. Records good except for estimated periods, for which they are fair.

COOPERATION.—Gage-height record furnished by Oakley Canal Co.

*Discharge measurements of Goose Creek above Trapper Creek, near Oakley, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 20 | 2.01 | 28.0 | Apr. 15 | 2.76 | 90.0 | June 15 | 1.66 | 11.0 |
| Mar. 24 | 2.52 | 67.0 | Apr. 30 | 2.26 | 47.2 | July 26 | 1.64 | 10.0 |

*Daily discharge, in second-feet, of Goose Creek above Trapper Creek, near Oakley, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 30 | 36 | | 59 | 46 | 14 | 16 | 7.6 | 6.1 |
| 2 | 25 | 35 | | | 57 | 45 | 14 | 12 | 7.0 | 7.0 |
| 3 | 25 | 38 | | | 54 | 45 | 13 | 14 | 7.3 | 7.6 |
| 4 | 25 | 36 | | | 52 | 43 | 12 | 11 | 7.9 | 7.6 |
| 5 | 25 | | | | 54 | 41 | 12 | 10 | 8.5 | 7.4 |
| 6 | 27 | 30 | | | 66 | 41 | 11 | 14 | 8.5 | 7.2 |
| 7 | 28 | | | | 78 | 39 | 11 | 12 | 8.5 | 7.0 |
| 8 | 27 | | | | 88 | 39 | 11 | 15 | 8.9 | 6.8 |
| 9 | 27 | | 25 | | 95 | 38 | 11 | 21 | 9.3 | 6.6 |
| 10 | 27 | 36 | | | 93 | 38 | 10 | 28 | 8.5 | 6.4 |
| 11 | 28 | 36 | | | 91 | 38 | 10 | 24 | 22 | 6.4 |
| 12 | 33 | 36 | | | 88 | 36 | 10 | 20 | 25 | 6.1 |
| 13 | 36 | 37 | | 60 | 88 | 34 | 11 | 18 | 18 | 7.0 |
| 14 | 34 | 38 | | | 88 | 31 | 12 | 16 | 14 | 7.0 |
| 15 | 33 | 37 | | | 89 | 30 | 11 | 14 | 12 | 7.3 |
| 16 | 31 | 37 | | | 88 | 29 | 11 | 14 | 10 | 7.3 |
| 17 | 30 | 37 | | | 86 | 29 | 9.7 | 14 | 9.3 | 7.6 |
| 18 | 30 | 37 | | | 80 | 30 | 8.2 | 14 | 8.2 | 8.2 |
| 19 | 30 | | | 78 | 82 | 30 | 8.2 | 14 | 9.3 | 8.5 |
| 20 | 29 | | | 70 | 83 | 29 | 8.5 | 13 | 9.7 | 9.7 |
| 21 | 29 | | | 67 | 81 | 28 | 8.9 | 12 | 8.9 | 8.9 |
| 22 | 30 | 30 | | 66 | 78 | 28 | 10 | 12 | 9.3 | 9.3 |
| 23 | 30 | | | 66 | 76 | 27 | 9.3 | 11 | 8.9 | 9.7 |
| 24 | 29 | | | 67 | 75 | 25 | 9.7 | 11 | 7.9 | 10 |
| 25 | 29 | | | 65 | 71 | 25 | 10 | 10 | 6.7 | 10 |
| 26 | 29 | | | 63 | 68 | 25 | 10 | 9.7 | 5.8 | 12 |
| 27 | 29 | 36 | | 60 | 63 | 25 | 9.7 | 8.5 | 5.8 | 12 |
| 28 | 29 | 35 | | 59 | 51 | 24 | 8.5 | 8.2 | 6.1 | 13 |
| 29 | 30 | 35 | | 57 | 46 | 21 | 8.9 | 8.5 | 6.1 | 14 |
| 30 | 30 | 36 | | 56 | 46 | 20 | 12 | 8.9 | 5.8 | 16 |
| 31 | 30 | | | 57 | | 16 | | 8.5 | 5.5 | |

NOTE.—Discharge estimated Nov. 5–9, 19–26, and Dec. 2–14, because of ice; Mar. 8–18 prior to removal of drift from control. Interpolated Sept. 5–9. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Goose Creek above Trapper Creek, near Oakley, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 36 | 25 | 29.0 | 1,780 |
| November | 38 | | 33.4 | 1,990 |
| December 1–14 | | | 25.8 | 716 |
| March 8–31 | | | 62.1 | 2,960 |
| April | 95 | 46 | 73.8 | 4,39 |
| May | 46 | 16 | 32.1 | 1,97 |
| June | 14 | 8.2 | 10.5 | 625 |
| July | 28 | 8.2 | 13.6 | 836 |
| August | 25 | 5.5 | 9.56 | 588 |
| September | 16 | 6.1 | 8.66 | 515 |

### TRAPPER CREEK NEAR OAKLEY, IDAHO

LOCATION.—In sec. 33, T. 14 S., R. 21 E., 1½ miles above Nelson ranch, 1 mile from east boundary of Minidoka National Forest, 5 miles above Oakley Dam, and 9 miles southwest of Oakley, Cassia County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 1, 1911, to September 30, 1916; March 28, 1919, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank; installed April 8, 1913; inspected by employees of Oakley Canal Co.

DISCHARGE MEASUREMENTS.—Made by wading. Since summer of 1921 flow past station has been augmented slightly by flow from two artesian wells 1 mile above gage.

CHANNEL AND CONTROL.—Bed composed of small boulders and coarse gravel. Control shifting. Banks brushy; not likely to be overflowed.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 2.79 feet at 7 p. m. August 10 (discharge, 45 second-feet); minimum stage, 2.04 feet from 8 p. m. to midnight July 31 (discharge, 9.7 second-feet).

1911–1916, 1919–1926: Maximum stage recorded, 3.44 feet May 28 and June 8, 1921 (discharge, 98 second-feet); minimum discharge probably occurs during winter when records are discontinued.

ICE.—Stage-discharge relation seriously affected by ice. Observations discontinued during winter.

DIVERSIONS.—No diversions of importance above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Two well-defined rating curves used during year; one from October 1 to December 13, and the other from March 9–26 and April 29 to September 30. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph except March 27 to April 28, when shifting-control method was used, as indicated in footnote or to daily-discharge table. Records good except those for April, which are fair.

COOPERATION.—Gage-height record furnished by Oakley Canal Co.

*Discharge measurements of Trapper Creek near Oakley, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 20 | 2.15 | 10.4 | Apr. 15 | 2.29 | 13.2 | June 15 | 2.14 | 11.1 |
| Mar. 24 | 2.22 | 14.0 | Apr. 30 | 2.26 | 15.4 | July 26 | 2.07 | 10.1 |

*Daily discharge, in second-feet, of Trapper Creek near Oakley, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | 10 | 11 | ------ | 13 | 15 | 13 | 11 | 9.8 | 10 |
| 2 | 10 | 11 | 11 | ------ | 12 | 15 | 12 | 11 | 9.9 | 10 |
| 3 | 10 | 11 | 11 | ------ | 13 | 15 | 12 | 10 | 10 | 10 |
| 4 | 10 | 11 | 11 | ------ | 12 | 15 | 12 | 10 | 10 | 10 |
| 5 | 10 | 11 | 11 | ------ | 13 | 15 | 12 | 10 | 10 | 10 |
| 6 | 11 | 11 | 11 | ------ | 14 | 15 | 12 | 10 | 10 | 10 |
| 7 | 10 | 10 | 11 | ------ | 14 | 15 | 11 | 10 | 10 | 10 |
| 8 | 10 | 10 | 11 | ------ | 14 | 15 | 12 | 11 | 10 | 10 |
| 9 | 10 | 10 | 11 | 14 | 13 | 15 | 12 | 12 | 10 | 10 |
| 10 | 10 | 10 | 11 | 13 | 13 | 15 | 12 | 11 | 12 | 10 |

*Daily discharge, in second-feet, of Trapper Creek near Oakley, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 11 | 11 | 11 | 13 | 13 | 15 | 12 | 11 | 10 | 10 |
| 12 | 11 | 11 | 11 | 13 | 14 | 15 | 12 | 11 | 10 | 10 |
| 13 | 11 | 10 | 10 | 15 | 13 | 15 | 12 | 11 | 10 | 10 |
| 14 | 11 | 10 | ------ | 15 | 13 | 15 | 12 | 10 | 10 | 10 |
| 15 | 11 | 10 | ------ | 15 | 13 | 14 | 12 | 10 | 10 | 10 |
| 16 | 10 | 10 | ------ | 15 | 13 | 14 | 12 | 10 | 10 | 10 |
| 17 | 11 | 10 | ------ | 15 | 14 | 14 | 12 | 10 | 10 | 10 |
| 18 | 11 | 10 | ------ | 14 | 14 | 14 | 11 | 10 | 10 | 10 |
| 19 | 10 | 10 | ------ | 14 | 14 | 14 | 12 | 10 | 10 | 10 |
| 20 | 10 | 10 | ------ | 14 | 15 | 14 | 11 | 10 | 10 | 10 |
| 21 | 10 | 10 | ------ | 14 | 15 | 14 | 11 | 10 | 10 | 10 |
| 22 | 10 | 10 | ------ | 14 | 15 | 14 | 11 | 10 | 10 | 10 |
| 23 | 10 | 10 | ------ | 14 | 15 | 14 | 11 | 9.9 | 10 | 10 |
| 24 | 10 | 11 | ------ | 14 | 15 | 14 | 11 | 9.9 | 9.9 | 10 |
| 25 | 10 | 11 | ------ | 14 | 15 | 14 | 10 | 9.9 | 9.9 | 11 |
| 26 | 10 | 11 | ------ | 14 | 15 | 14 | 10 | 9.9 | 10 | 11 |
| 27 | 10 | 11 | ------ | 14 | 15 | 14 | 10 | 9.9 | 10 | 11 |
| 28 | 10 | 11 | ------ | 14 | 16 | 14 | 10 | 10 | 10 | 11 |
| 29 | 10 | 11 | ------ | 13 | 16 | 13 | 11 | 10 | 10 | 11 |
| 30 | 10 | 11 | ------ | 14 | 16 | 13 | 11 | 9.8 | 10 | 11 |
| 31 | 10 | ------ | ------ | 13 | ------ | 13 | ------ | 9.8 | 10 | ------ |

NOTE.—Discharge interpolated Oct. 25, 26, 31, Nov. 1, 2, 4–9, and May 26–30.

*Monthly discharge of Trapper Creek near Oakley, Idaho, for the year ending September, 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 11 | 10 | 10.3 | 633 |
| November | 11 | 10 | 10.5 | 625 |
| December 1–13 | 11 | 10 | 10.9 | 281 |
| March 9–31 | 15 | 13 | 14.0 | 639 |
| April | 16 | 12 | 14.0 | 833 |
| May | 15 | 13 | 14.4 | 885 |
| June | 13 | 10 | 11.5 | 684 |
| July | 12 | 9.8 | 10.3 | 633 |
| August | 12 | 9.8 | 10.0 | 615 |
| September | 11 | 10 | 10.2 | 607 |

### P. A. LATERAL NEAR MILNER, IDAHO

LOCATION.—In sec. 22, T. 10 S., R. 21 E., Jerome County, 200 yards below pumping station and 2½ miles northeast of Milner, Twin Falls County.

RECORDS AVAILABLE.—April 29, 1919, to September 30, 1926.

GAGE.—Vertical staff near left bank; read by employees of North Side Canal Co. (Ltd.).

DISCHARGE MEASUREMENTS.—Made from foot plank at rating flume just below gage.

CHANNEL AND CONTROL.—Canal section in earth; often obstructed by growth of moss. Concrete rating flume below gage contracts section forming permanent control.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.94 feet, several days in April and May (discharge, 55 second-feet); canal dry on numerous dates and during most of winter.

1919–1926: Maximum discharge, 64 second-feet May 11–13, 1920; canal dry on numerous occasions.

ICE.—No records obtained during winter.

DIVERSIONS.—One small diversion between pumping station and gage furnishes water for pump man's garden.

REGULATION.—Flow regulated by pumps at head of canal.

ACCURACY.—Stage-discharge relation not permanent. Three rating curves used during year. Gage read twice daily to hundredths; account taken of all periods when pumps were not operated. Daily discharge obtained by applying mean daily gage height to rating table. Records good.

COOPERATION.—Gage-height record and four discharge measurements furnished by North Side Canal Co. (Ltd.).

P. A. lateral diverts water pumped from right bank of Snake River above Milner Dam, in sec. 22, T. 10 S., R. 21 E. Water is used for irrigating part of the North Side Twin Falls project.

*Discharge measurements of P. A. lateral near Milner, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 15 | 1.06 | 9.7 | May 29 | 1.88 | 52 | July 30 | 1.82 | 47.9 |
| Apr. 24 | 1.94 | 54 | June 1 | 1.83 | 47.9 | Aug. 2 | 1.81 | 48.7 |
| May 5 | 1.94 | 55 | June 23 | 1.88 | 51 | Aug. 26 | 1.84 | 47.7 |
| May 13 | 1.86 | 50 | June 26 | 1.84 | 49.5 | Sept. 17 | 1.86 | 49.2 |

*Daily discharge, in second-feet, of P. A. lateral near Milner, Idaho, for the year ending September 30, 1926*

| Day | Nov. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | 55 | 49 | 49 | 48 | 48 |
| 2 | | | | 55 | 48 | 48 | 48 | 48 |
| 3 | | | | 55 | 48 | 49 | 48 | 48 |
| 4 | | | | 55 | 49 | 45 | 48 | 48 |
| 5 | | | | 54 | 48 | 45 | 48 | 48 |
| 6 | | | | 54 | 49 | 43 | 48 | 48 |
| 7 | 11 | | | 54 | 49 | 45 | 48 | 48 |
| 8 | 13 | | | 54 | 48 | 45 | 48 | 48 |
| 9 | 13 | | | 54 | 49 | 45 | 48 | 48 |
| 10 | 14 | | | 54 | 49 | 45 | 48 | 48 |
| 11 | 14 | 8 | | 53 | 48 | 45 | 48 | 48 |
| 12 | 14 | 9 | | 54 | 49 | 45 | 48 | 48 |
| 13 | 4 | 8 | | 49 | 48 | 45 | 48 | 48 |
| 14 | | 9 | | 45 | 49 | 44 | 48 | 48 |
| 15 | | 9 | | 48 | 49 | 45 | 48 | 48 |
| 16 | | 4 | | 48 | 48 | 45 | 48 | 48 |
| 17 | | | | 48 | 49 | 45 | 48 | 49 |
| 18 | | | | 48 | 49 | 45 | 48 | 48 |
| 19 | | | 8 | 48 | 49 | 44 | 48 | 48 |
| 20 | | | 18 | 47 | 49 | 45 | 48 | 48 |
| 21 | | | 28 | 48 | 49 | 45 | 48 | 48 |
| 22 | | | 34 | 48 | 49 | 45 | 48 | 40 |
| 23 | | | 44 | 48 | 51 | 44 | 48 | |
| 24 | | | 49 | 48 | 49 | 44 | 48 | |
| 25 | | | 55 | 48 | 48 | 45 | 48 | |
| 26 | | | 54 | 48 | 49 | 47 | 48 | |
| 27 | | | 55 | 48 | 49 | 48 | 48 | |
| 28 | | | 55 | 48 | 49 | 48 | 48 | |
| 29 | | | 55 | 51 | 49 | 48 | 48 | |
| 30 | | | 55 | 4 | 49 | 48 | 48 | |
| 31 | | | | 49 | | 48 | 44 | |

NOTE.—Pumps closed down and no flow on days for which no discharge is shown. Mean of hourly discharge used Nov. 7 and 13, Mar. 11 and 16, and Apr. 19, 20, when pumps operated part time.

*Monthly discharge of P. A. lateral near Milner, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| November 7-13 | 14 | 4 | 11.9 | 165 |
| March 11-16 | 9 | 4 | 7.83 | 93.2 |
| April 19-30 | 55 | 8 | 42.5 | 1,010 |
| May | 55 | 4 | 49.0 | 3,010 |
| June | 51 | 48 | 48.8 | 2,900 |
| July | 49 | 43 | 45.7 | 2,810 |
| August | 48 | 44 | 47.9 | 2,940 |
| September | 49 | 0 | 35.0 | 2,080 |

**MILNER LOW LIFT CANAL NEAR MILNER, IDAHO**

LOCATION.—In sec. 32, T. 10 S., R. 21 E., one-eighth mile below outlet from pumping station at head of canal and 1½ miles southeast of Milner post office, Twin Falls County.

RECORDS AVAILABLE.—June 1, 1921, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank; inspected by G. S. Gilham.

DISCHARGE MEASUREMENTS.—Made from foot plank at gage.

CHANNEL AND CONTROL.—Canal section in earth; banks clean. Control poorly defined; shifting.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.96 feet at 3 p. m. May 4 (discharge, 106 second-feet); canal dry for extended periods during nonirrigation season.

1921–1926: Maximum stage recorded, 3.09 feet at 8 a. m. July 31, 1925 (discharge, 108 second-feet); canal dry on numerous occasions.

ICE.—No records obtained during winter; pumps not operated.

DIVERSIONS.—None above station.

REGULATION.—Flow regulated by pumps at head of canal.

ACCURACY.—Stage-discharge relation not permanent. Rating curve fairly well defined for all stages. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying mean daily gage height to rating table or by shifting-control method, except as noted in footnote to daily-discharge table. Records good.

Milner Low Lift Canal diverts water by pumping from south side of Snake River in the backwater above Milner Dam and furnishes water for irrigation of lands within the Milner Low Lift irrigation district.

*Discharge measurements of Milner Low Lift Canal near Milner, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 16 | 1.77 | 47.5 | June 16 | 1.95 | 52 | Aug. 26 | 2.06 | 47.7 |
| Apr. 27 | 2.88 | 102 | June 23 | 2.17 | 62 | Sept. 1 | 2.03 | 47.8 |
| Apr. 29 | 2.91 | 100 | July 7 | 2.83 | 103 | Sept. 6 | 2.10 | 47.2 |
| May 5 | 2.88 | 104 | July 11 | 2.79 | 97 | Sept. 16 | 2.09 | 48.9 |
| May 15 | 2.90 | 103 | July 22 | 2.70 | 89 | Sept. 17 | 2.10 | 48.9 |
| May 25 | 2.86 | 100 | July 29 | 2.68 | 88 | Sept. 28 | 2.09 | 48.2 |
| May 28 | 2.88 | 102 | Aug. 7 | 2.83 | 84 | | | |
| June 9 | 2.63 | 86 | Aug. 18 | 2.02 | 47.7 | | | |

*Daily discharge, in second-feet, of Milner Low Lift Canal near Milner, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 102 | 100 | 68 | 86 | 48 | 16 | 50 | 104 | 52 | 93 | 68 | 49 |
| 2 | ------ | 102 | 100 | 60 | 88 | 47 | 17 | 55 | 103 | 58 | 42 | 46 | 49 |
| 3 | ------ | 103 | 88 | 49 | 86 | 47 | 18 | 57 | 102 | 57 | 54 | 47 | 49 |
| 4 | ------ | 95 | 86 | 1 | 88 | 47 | 19 | 68 | 103 | 64 | 55 | 48 | 43 |
| 5 | ------ | 102 | 86 | 85 | 87 | 47 | 20 | 72 | 102 | 32 | 63 | 49 | 50 |
| 6 | ------ | 103 | 86 | 102 | 86 | 47 | 21 | 78 | 102 | 54 | 89 | 36 | 49 |
| 7 | ------ | 104 | 86 | 104 | 84 | 47 | 22 | 83 | 102 | 57 | 88 | 46 | 49 |
| 8 | ------ | 104 | 86 | 104 | 84 | 49 | 23 | 88 | 102 | 35 | 86 | 36 | 49 |
| 9 | ------ | 104 | 86 | 104 | 85 | 49 | 24 | 98 | 102 | 60 | 86 | 49 | 49 |
| 10 | ------ | 93 | 86 | 104 | 86 | 49 | 25 | 94 | 102 | 62 | 86 | 49 | 48 |
| 11 | ------ | 104 | 86 | 98 | 82 | 49 | 26 | 98 | 102 | 63 | 86 | 48 | 48 |
| 12 | 38 | 104 | 83 | 98 | 64 | 49 | 27 | 102 | 102 | 65 | 86 | 47 | 49 |
| 13 | 0 | 104 | 79 | 97 | 76 | 49 | 28 | 104 | 102 | 65 | 86 | 47 | 49 |
| 14 | 14 | 103 | 76 | 95 | 80 | 49 | 29 | 104 | 100 | 64 | 80 | 40 | 48 |
| 15 | 44 | 103 | 57 | 93 | 80 | 49 | 30 | 104 | 100 | 69 | 83 | 38 | 49 |
| | | | | | | | 31 | ------ | 100 | ------ | 86 | 47 | ------ |

NOTE.—No record obtained Oct. 1 to Apr. 11; pumps closed down. Pumps were operated part time Apr. 12, 13, May 4, 10, June 20, 22, and 23, July 3, 4, 5, 17, 20, Aug. 11, 12, 21, 22, 23, 29, and 30, and Sept. 19; flow is mean of hourly discharge.

*Monthly discharge of Milner Low Lift Canal near Milner, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April 12-30 | 104 | 0 | 71.1 | 2,680 |
| May | 104 | 93 | 102 | 6,270 |
| June | 100 | 32 | 70.9 | 4,220 |
| July | 104 | 1 | 81.0 | 4,980 |
| August | 88 | 36 | 64.0 | 3,940 |
| September | 50 | 43 | 48.3 | 2,870 |
| The period | | | | 25,000 |

### NORTH SIDE TWIN FALLS CANAL AT MILNER, IDAHO

LOCATION.—In sec. 20, T. 10 S., R. 21 E., Jerome County, half a mile north of Milner post office, Twin Falls County, and three-fourths mile below head gates at Milner Dam.

RECORDS AVAILABLE.—May 10, 1909, to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder on right bank; installed April 1, 1918; inspected by W. N. McConnel.

DISCHARGE MEASUREMENTS.—Made from cable at gage.

CHANNEL AND CONTROL.—Channel is a permanent concrete-lined section. Growth of moss heavy during summer and stage-discharge relation is seriously affected. Control apparently indeterminate.

EXTREMES OF DISCHARGE.—Maximum discharge, 3,010 second-feet at 1 p. m. April 25 (gage height, 8.80 feet); canal dry on April 14 and September 12–15.

1909–1926: Maximum discharge, 3,200 second-feet July 5–7 and 29–31, 1921 (gage height, 8.68 feet); canal dry many times when head gates were closed.

ICE.—Stage-discharge relation not affected by ice because of open season.

DIVERSIONS.—None between gage and head gates and none for some distance below.

REGULATION.—Flow regulated by head gates at Milner Dam.

ACCURACY.—Stage-discharge relation not permanent; changes due largely to growth of aquatic plants. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge November 21 to May 5 ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph; for remainder of year ascertained by shifting-control method except as noted in footnote to daily-discharge table. Records good.

COOPERATION.—Gage-height record and several discharge measurements furnished by North Side Canal Co. (Ltd.).

The North Side Twin Falls Canal diverts water from north side of Snake River at Milner Dam and furnishes water for stock and irrigation on about 185,000 acres of land in Jerome and Gooding Counties. The distribution system comprises about 100 miles of main canal and 625 miles of laterals.

*Discharge measurements of North Side Twin Falls Canal at Milner, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Nov. 7 | 2.86 | 486 | May 31 | 8.55 | 2,740 | July 23 | 7.05 | 2,040 |
| Nov. 21 | 3.37 | 666 | June 1 | 8.64 | 2,860 | July 24 | 2.74 | 444 |
| Dec. 9 | 3.37 | 650 | June 2 | 8.64 | 2,860 | July 26 | 2.62 | 435 |
| Jan. 8 | 2.90 | 519 | June 8 | 8.41 | 2,790 | July 30 | 2.70 | 404 |
| Feb. 19 | 2.86 | 504 | June 11 | 8.33 | 2,760 | Aug. 1 | 7.30 | 2,090 |
| Mar. 15 | 4.36 | 1,000 | June 14 | 8.12 | 2,680 | Aug. 2 | 7.42 | 2,140 |
| Mar. 17 | 5.02 | 1,260 | June 20 | 8.15 | 2,670 | Aug. 7 | 7.06 | 2,080 |
| Mar. 26 | 5.31 | 1,360 | June 23 | 8.12 | 2,610 | Aug. 9 | 2.59 | 420 |
| Apr. 9 | 6.23 | 1,720 | June 26 | 8.01 | 2,490 | Aug. 11 | 2.54 | 418 |
| Apr. 10 | 7.16 | 2,130 | June 28 | 8.05 | 2,480 | Aug. 16 | 7.19 | 2,120 |
| Apr. 13 | 6.70 | 1,920 | Do | 8.04 | 2,440 | Aug. 18 | 7.09 | 2,140 |
| Apr. 15 | 7.75 | 2,550 | June 30 | 8.49 | 2,630 | Aug. 19 | 7.07 | 2,110 |
| Apr. 16 | 7.78 | 2,540 | July 1 | 8.51 | 2,670 | Aug. 22 | 2.61 | 433 |
| Apr. 24 | 8.67 | 2,960 | July 2 | 8.48 | 2,640 | Aug. 24 | 2.72 | 468 |
| May 3 | 8.59 | 2,970 | July 3 | 8.51 | 2,660 | Sept. 2 | 6.06 | 1,670 |
| May 6 | 8.60 | 2,930 | July 6 | 7.74 | 2,330 | Sept. 7 | 2.66 | 434 |
| May 13 | 8.46 | 2,810 | July 8 | 7.74 | 2,320 | Sept. 17 | 2.55 | 435 |
| May 14 | 8.47 | 2,820 | July 10 | 7.61 | 2,280 | Sept. 20 | 6.01 | 1,710 |
| May 20 | 8.21 | 2,690 | July 12 | 7.53 | 2,210 | Sept. 24 | 3.59 | 777 |
| May 22 | 2.79 | 476 | July 15 | 7.23 | 2,050 | Sept. 28 | 2.92 | 552 |
| May 24 | 2.55 | 425 | July 21 | 7.02 | 2,020 | Sept. 29 | 2.45 | 417 |

*Daily discharge, in second-feet, of North Side Twin Falls Canal at Milner, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 706 | 687 | 674 | 642 | 504 | 506 | 1,270 | 2,930 | 2,820 | 2,640 | 1,620 | 464 |
| 2 | 620 | 550 | 642 | 658 | 506 | 504 | 1,290 | 2,970 | 2,840 | 2,630 | 2,120 | 1,330 |
| 3 | 620 | 481 | 655 | 655 | 509 | 504 | 1,290 | 2,970 | 2,900 | 2,640 | 2,100 | 1,660 |
| 4 | 614 | 489 | 664 | 652 | 509 | 504 | 1,290 | 2,910 | 2,900 | 2,660 | 2,080 | 1,630 |
| 5 | 617 | 484 | 655 | 617 | 509 | 501 | 1,280 | 2,880 | 2,840 | 2,590 | 2,099 | 1,630 |
| 6 | 617 | 484 | 652 | 553 | 504 | 509 | 1,280 | 2,900 | 2,830 | 2,390 | 2,090 | 1,310 |
| 7 | 620 | 484 | 648 | 562 | 506 | 661 | 1,300 | 2,900 | 2,830 | 2,300 | 2,090 | 416 |
| 8 | 617 | 489 | 648 | 538 | 506 | 910 | 1,440 | 2,810 | 2,810 | 2,330 | 1,560 | 411 |
| 9 | 623 | 486 | 655 | 521 | 506 | 971 | 1,670 | 2,810 | 2,800 | 2,300 | 427 | 385 |
| 10 | 623 | 565 | 668 | 518 | 504 | 989 | 2,030 | 2,790 | 2,800 | 2,270 | 424 | 380 |
| 11 | 614 | 614 | 671 | 518 | 504 | 1,000 | 2,040 | 2,820 | 2,760 | 2,240 | 411 | 390 |
| 12 | 617 | 617 | 671 | 518 | 506 | 989 | 1,920 | 2,840 | 2,770 | 2,210 | 408 | 289 |
| 13 | 614 | 611 | 677 | 512 | 504 | 1,000 | 1,880 | 2,830 | 2,710 | 2,120 | 411 | 0 |
| 14 | 611 | 623 | 684 | 509 | 501 | 1,000 | 779 | 2,850 | 2,680 | 2,100 | 414 | 0 |
| 15 | 608 | 664 | 684 | 504 | 501 | 996 | 2,480 | 2,820 | 2,650 | 2,090 | 421 | 0 |
| 16 | 630 | 668 | 677 | 509 | 501 | 1,160 | 2,520 | 2,830 | 2,680 | 2,080 | 1,620 | 108 |
| 17 | 633 | 661 | 671 | 509 | 506 | 1,240 | 2,500 | 2,750 | 2,700 | 2,060 | 2,140 | 416 |
| 18 | 645 | 677 | 674 | 506 | 506 | 1,250 | 2,450 | 2,840 | 2,640 | 1,990 | 2,120 | 459 |
| 19 | 648 | 671 | 661 | 506 | 506 | 1,020 | 2,520 | 2,830 | 2,600 | 1,980 | 2,130 | 1,550 |
| 20 | 645 | 664 | 655 | 509 | 509 | 864 | 2,600 | 2,170 | 2,630 | 1,950 | 2,160 | 1,700 |

*Daily discharge, in second-feet, of North Side Twin Falls Canal at Milner, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 639 | 664 | 655 | 509 | 515 | 886 | 2,810 | 538 | 2,670 | 1,980 | 1,820 | 1,570 |
| 22 | 642 | 664 | 655 | 509 | 506 | 1,010 | 2,840 | 472 | 2,670 | 1,980 | 432 | 1,520 |
| 23 | 642 | 664 | 648 | 506 | 506 | 1,120 | 2,890 | 416 | 2,640 | 2,000 | 440 | 1,500 |
| 24 | 671 | 661 | 655 | 504 | 504 | 1,210 | 2,980 | 416 | 2,580 | 984 | 453 | 1,050 |
| 25 | 687 | 664 | 648 | 506 | 504 | 1,290 | 3,000 | 411 | 2,520 | 432 | 478 | 789 |
| 26 | 693 | 661 | 648 | 504 | 506 | 1,340 | 2,980 | 411 | 2,490 | 419 | 475 | 786 |
| 27 | 639 | 661 | 655 | 504 | 504 | 1,340 | 2,920 | 403 | 2,460 | 398 | 472 | 716 |
| 28 | 693 | 661 | 655 | 498 | 504 | 1,310 | 2,870 | 411 | 2,520 | 398 | 475 | 492 |
| 29 | 700 | 664 | 658 | 506 | ------- | 1,260 | 2,900 | 345 | 2,620 | 398 | 472 | 401 |
| 30 | 684 | 668 | 652 | 506 | ------- | 1,230 | 2,860 | 47 | 2,640 | 401 | 467 | 309 |
| 31 | 687 | ------- | 648 | 506 | ------- | 1,240 | ------- | 1,820 | ------- | 414 | 464 | ------- |

NOTE.—Canal reported dry Sept. 13-15. Discharge is mean of hourly discharges Apr. 14, May 20, 29-31, July 24, Aug. 1, 8, 16, 21, Sept. 2, 6, 12, 16, and 24.

*Monthly discharge of North Side Twin Falls Canal at Milner, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 706 | 608 | 643 | 39,500 |
| November | 687 | 481 | 610 | 36,300 |
| December | 684 | 642 | 660 | 40,600 |
| January | 658 | 498 | 535 | 32,900 |
| February | 515 | 501 | 506 | 28,100 |
| March | 1,340 | 501 | 978 | 60,100 |
| April | 3,000 | 779 | 2,160 | 129,000 |
| May | 2,970 | 47 | 2,000 | 123,000 |
| June | 2,900 | 2,460 | 2,700 | 161,000 |
| July | 2,660 | 398 | 1,790 | 110,000 |
| August | 2,160 | 408 | 1,140 | 70,100 |
| September | 1,700 | 0 | 789 | 46,900 |
| The year | 3,000 | 0 | 1,210 | 878,000 |

### SOUTH SIDE TWIN FALLS CANAL AT MILNER, IDAHO

LOCATION.—In sec. 29, T. 10 S., R. 21 E., at wagon bridge one-eighth mile below head gates at Milner, Twin Falls County.

RECORDS AVAILABLE.—May 10, 1909, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank; at site and datum of vertical staff gage installed in summer of 1912. Inspected by W. N. McConnel.

DISCHARGE MEASUREMENTS.—Made from cable 50 feet above gage.

CHANNEL AND CONTROL.—Channel at gage blasted out of rock; practically permanent. Occasional slight changes in control are due to deposition of silt and operation of gates at Murtaugh Lake 6 miles downstream.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 10.44 feet at 8 a. m. May 3 (discharge, 3,600 second-feet); minimum stage, 1.60 feet November 2 and 3 (discharge, 53 second-feet).

1909-1926: Maximum discharge recorded, 4,600 second-feet August 12, 1918; canal dry September 20, 1920.

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—None above gage and none of importance for several miles below.

REGULATION.—Flow regulated by head gates.

ACCURACY.—Stage-discharge relation not permanent. Rating curve fairly well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph or by shifting-control method except as noted in footnote to daily-discharge table. Records good.

COOPERATION.—Gage-height record and 26 discharge measurements furnished by Twin Falls Canal Co.

South Side Twin Falls Canal diverts water from south side of Snake River at Milner Dam and furnishes water for stock and irrigation on about 210,000 acres of land near Twin Falls. The distribution system comprises about 110 miles of main canal and 590 miles of laterals.

*Discharge measurements of South Side Twin Falls Canal at Milner, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Nov. 20 | 4.74 | 784 | Apr. 24 | 9.99 | 3,280 | July 8 | 9.92 | 3,260 |
| Dec. 11 | 4.36 | 696 | Apr. 29 | 9.95 | 3,260 | July 16 | 9.18 | 2,830 |
| Jan. 7 | 4.42 | 682 | May 3 | 10.43 | 3,600 | July 26 | 9.21 | 2,830 |
| Feb. 19 | 4.16 | 659 | May 19 | 9.08 | 2,740 | Aug. 8 | 8.86 | 2,620 |
| Mar. 12 | 4.38 | 710 | May 22 | 8.73 | 2,490 | Aug. 13 | 7.66 | 1,990 |
| Mar. 24 | 5.90 | 1,250 | May 25 | 8.79 | 2,570 | Aug. 23 | 8.08 | 2,180 |
| Apr. 8 | 6.23 | 1,330 | May 29 | 9.55 | 2,980 | Sept. 8 | 7.93 | 2,100 |
| Apr. 16 | 7.69 | 1,930 | June 9 | 9.56 | 2,980 | Sept. 18 | 8.84 | 2,700 |
| Apr. 17 | 8.24 | 2,280 | June 17 | 9.55 | 2,980 | Do | 8.29 | 2,330 |
| Do | 8.44 | 2,490 | July 1 | 10.06 | 3,390 | Sept. 27 | 7.99 | 2,130 |

*Daily discharge, in second-feet, of South Side Twin Falls Canal at Milner, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,700 | 1,050 | 720 | 670 | 627 | 615 | 844 | 3,340 | 3,000 | 3,370 | 2,790 | 2,000 |
| 2 | 1,530 | 448 | 717 | 689 | 627 | 589 | 1,570 | 3,530 | 3,000 | 3,370 | 2,800 | 2,000 |
| 3 | 1,500 | 53 | 708 | 695 | 633 | 557 | 1,640 | 3,560 | 2,990 | 3,370 | 2,800 | 2,010 |
| 4 | 1,510 | 1,320 | 711 | 695 | 630 | 560 | 1,650 | 3,300 | 3,000 | 3,290 | 2,800 | 2,000 |
| 5 | 1,480 | 2,690 | 704 | 724 | 636 | 562 | 1,430 | 3,170 | 3,000 | 3,260 | 2,800 | 2,010 |
| 6 | 1,470 | 1,230 | 701 | 698 | 627 | 560 | 1,310 | 3,390 | 2,990 | 3,270 | 2,650 | 2,110 |
| 7 | 1,440 | 90 | 686 | 704 | 630 | 554 | 1,300 | 3,490 | 3,000 | 3,260 | 2,600 | 2,150 |
| 8 | 1,340 | 60 | 679 | 692 | 633 | 633 | 1,300 | 3,160 | 2,990 | 3,280 | 2,600 | 2,120 |
| 9 | 1,290 | 60 | 689 | 670 | 627 | 708 | 1,300 | 3,030 | 3,000 | 3,260 | 2,600 | 2,130 |
| 10 | 1,300 | 60 | 692 | 652 | 627 | 714 | 1,310 | 3,040 | 3,000 | 3,260 | 2,600 | 2,150 |
| 11 | 1,290 | 60 | 689 | 652 | 642 | 711 | 1,290 | 3,040 | 3,000 | 3,260 | 2,530 | 2,520 |
| 12 | 1,270 | 60 | 689 | 661 | 727 | 714 | 1,460 | 3,030 | 3,000 | 3,260 | 2,040 | 2,700 |
| 13 | 1,200 | 620 | 686 | 673 | 630 | 717 | 1,580 | 2,990 | 3,000 | 3,270 | 2,000 | 2,670 |
| 14 | 1,170 | 1,050 | 682 | 686 | 618 | 711 | 1,690 | 2,970 | 3,000 | 3,260 | 2,000 | 2,660 |
| 15 | 815 | 867 | 682 | 664 | 815 | 749 | 1,880 | 2,960 | 3,000 | 2,910 | 2,000 | 2,660 |
| 16 | 875 | 906 | 686 | 708 | 977 | 778 | 2,090 | 2,950 | 3,010 | 2,800 | 1,870 | 2,670 |
| 17 | 1,390 | 80 | 679 | 655 | 805 | 782 | 2,390 | 2,950 | 3,000 | 2,800 | 1,880 | 2,660 |
| 18 | 1,600 | 458 | 689 | 661 | 639 | 782 | 2,450 | 2,940 | 3,000 | 2,800 | 2,000 | 2,570 |
| 19 | 1,120 | 812 | 692 | 667 | 648 | 782 | 2,460 | 2,780 | 2,990 | 2,800 | 2,000 | 2,550 |
| 20 | 1,120 | 808 | 682 | 661 | 661 | 828 | 2,460 | 2,550 | 3,000 | 2,800 | 2,010 | 2,540 |
| 21 | 1,220 | 812 | 679 | 658 | 658 | 872 | 2,380 | 2,540 | 3,000 | 2,800 | 2,050 | 2,510 |
| 22 | 1,250 | 815 | 676 | 652 | 648 | 998 | 3,220 | 2,550 | 2,990 | 2,800 | 2,150 | 2,510 |
| 23 | 1,270 | 818 | 679 | 648 | 652 | 1,180 | 3,240 | 2,550 | 3,000 | 2,800 | 2,200 | 2,470 |
| 24 | 1,260 | 815 | 682 | 652 | 655 | 1,260 | 3,340 | 2,540 | 3,000 | 2,800 | 2,200 | 2,370 |
| 25 | 1,270 | 746 | 673 | 645 | 636 | 1,340 | 3,410 | 2,600 | 3,000 | 2,790 | 2,200 | 2,260 |
| 26 | 1,140 | 717 | 673 | 636 | 621 | 1,380 | 3,410 | 2,990 | 3,000 | 2,800 | 2,200 | 2,240 |
| 27 | 1,010 | 689 | 676 | 627 | 618 | 1,400 | 3,280 | 2,980 | 3,000 | 2,800 | 2,210 | 2,200 |
| 28 | 1,070 | 711 | 679 | 636 | 618 | 1,390 | 3,250 | 3,010 | 3,000 | 2,790 | 2,200 | 2,170 |
| 29 | 1,060 | 536 | 676 | 645 | ------- | 1,180 | 3,280 | 3,000 | 3,000 | 2,800 | 2,170 | 2,170 |
| 30 | 1,050 | 487 | 673 | 655 | ------- | 477 | 3,270 | 2,990 | 3,310 | 2,800 | 1,980 | 2,080 |
| 31 | 1,050 | ------- | 673 | 630 | ------- | 56 | ------- | 3,020 | ------- | 2,810 | 2,020 | ------- |

NOTE.—Mean of hourly discharges used Oct. 16, Nov. 2, 4, 6, 13–16, 18, 29, and 30, Mar. 30, and Apr. 1 and 21. Mean of daily staff gage readings used Nov. 8–12 and 17.

*Monthly discharge of South Side Twin Falls Canal at Milner, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 1,700 | 815 | 1,260 | 77,500 |
| November | 2,690 | 53 | 664 | 39,500 |
| December | 720 | 673 | 687 | 42,200 |
| January | 724 | 627 | 666 | 41,000 |
| February | 977 | 618 | 659 | 36,600 |
| March | 1,400 | 56 | 811 | 49,900 |
| April | 3,410 | 844 | 2,180 | 130,000 |
| May | 3,560 | 2,540 | 3,000 | 184,000 |
| June | 3,310 | 2,990 | 3,010 | 179,000 |
| July | 3,370 | 2,790 | 3,020 | 186,000 |
| August | 2,800 | 1,870 | 2,290 | 141,000 |
| September | 2,700 | 2,000 | 2,330 | 139,000 |
| The year | 3,560 | 53 | 1,719 | 1,250,000 |

### ROCK CREEK NEAR TWIN FALLS, IDAHO

LOCATION.—On south line of sec. 36, T. 9 S., R. 16 E., at "Highwood" bridge, 3 miles above confluence with Snake River, and 3½ miles northwest of Twin Falls, Twin Falls County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 27, 1922, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank, installed July 31, 1922; inspected by T. T. Rutledge.

DISCHARGE MEASUREMENTS.—Made from highway bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock covered with boulders, gravel, and silt. One channel at all stages. Banks high; covered with brush. Control formed by lava reef covered in part by boulders and brush growth; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 3.10 feet 2 to 6 p. m. October 25 (discharge, 563 second-feet); minimum stage, 0.81 foot from 11 p. m. April 1 to 2 a. m. April 2 (discharge, 90 second-feet).

1922–1926: Maximum stage recorded, 4.70 feet at 5 p. m. January 29, 1925 (discharge, 939 second-feet); minimum stage, that of April 2, 1926.

ICE.—Stage-discharge relation not affected by ice.

Diversions.—After spring floods the natural flow is entirely diverted for irrigation several miles upstream. Flow past gage derived largely from waste and seepage water from the South Side Twin Falls tract.

REGULATION.—At times waste water from South Side Twin Falls Canal which crosses Rock Creek about 10 miles above causes appreciable changes in stage.

ACCURACY.—Stage-discharge relation changed several times during year. Rating curve well defined between 100 and 350 second-feet and extended above. Operation of water-stage recorder satisfactory except for short periods. Daily discharge from October 1 to February 16 ascertained by applying to rating table mean daily gage height determined from inspection of recorder graph, and from February 7 to September 30 by shifting-control method, except as indicated in footnote to table of daily discharge. Records good except those for stages above 400 second-feet, which are fair, and those for estimated periods, which are poor.

COOPERATION.—Gage-height record furnished by Murtaugh Irrigation District.

*Discharge measurements of Rock Creek near Twin Falls, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 23 | 1.38 | 172 | Apr. 17 | 1.00 | 115 | June 11 | 1.14 | 142 |
| Mar. 3 | .98 | 109 | May 2 | 1.13 | 137 | July 24 | 1.24 | 160 |
| Mar. 26 | 1.01 | 112 | May 22 | 1.06 | 127 | Aug. 25 | 1.10 | 134 |

*Daily discharge, in second-feet, of Rock Creek near Twin Falls, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 199 | 170 | 144 | 175 | 205 | 108 | 93 | 144 | 135 | 151 | 154 | 138 |
| 2 | 197 | 175 | 154 | 177 | 201 | 108 | 221 | 145 | 132 | 154 | 152 | 142 |
| 3 | 190 | 165 | 145 | 190 | 201 | 108 | 440 | 146 | 130 | 154 | 152 | 141 |
| 4 | 191 | 142 | 145 | 188 | 226 | 110 | 428 | 182 | 127 | 156 | 148 | 141 |
| 5 | 197 | 144 | 148 | 193 | 226 | 108 | 440 | 148 | 127 | 156 | 150 | 141 |
| 6 | 195 | 160 | | 201 | 221 | 106 | 257 | 146 | 132 | 161 | 151 | 142 |
| 7 | 184 | 203 | | 199 | 201 | 105 | 170 | 151 | 135 | 167 | 148 | 145 |
| 8 | 181 | 158 | | 197 | 197 | 107 | 121 | 150 | 139 | 172 | 144 | 142 |
| 9 | 177 | 158 | | 199 | 199 | 108 | 114 | 146 | 141 | 177 | 142 | 144 |
| 10 | | 158 | 160 | 195 | 213 | 106 | 1 3 | 142 | 144 | 172 | 142 | 145 |
| 11 | 175 | 141 | | 193 | 230 | 108 | 113 | 138 | 146 | 175 | 144 | 151 |
| 12 | | 139 | | 191 | 232 | 107 | 112 | 138 | 150 | 175 | 142 | 158 |
| 13 | | 135 | 175 | 191 | 228 | 111 | 112 | 138 | 154 | 167 | 139 | 165 |
| 14 | 177 | 130 | | 195 | 226 | 116 | 111 | 139 | 157 | 162 | 139 | 165 |
| 15 | 181 | 128 | | 201 | 230 | 116 | 110 | 138 | 156 | 162 | 139 | 168 |
| 16 | 181 | 131 | 185 | 195 | 440 | 118 | 116 | 138 | 152 | 157 | 139 | 168 |
| 17 | 186 | 181 | | 207 | 488 | 119 | 126 | 139 | 151 | 154 | 137 | 170 |
| 18 | 346 | 139 | 199 | 205 | 272 | 118 | 131 | 135 | 151 | 154 | 137 | 168 |
| 19 | 272 | 139 | 195 | 201 | 207 | 105 | 131 | 128 | 157 | 156 | 139 | 172 |
| 20 | 172 | 141 | 184 | 199 | 165 | 114 | 131 | 131 | 156 | 154 | 139 | 177 |
| 21 | 170 | 152 | 191 | 215 | | 111 | 139 | 128 | 151 | 156 | 138 | 177 |
| 22 | 171 | 179 | 195 | 211 | 140 | 108 | 141 | 130 | 150 | 157 | 137 | 174 |
| 23 | 172 | 146 | 195 | 207 | | 105 | 150 | 127 | 146 | 158 | 131 | 234 |
| 24 | 201 | 156 | 190 | 205 | | 110 | 154 | 128 | 148 | 163 | 134 | 174 |
| 25 | 538 | 174 | 186 | 197 | 111 | 112 | 146 | 128 | 145 | 167 | 137 | 175 |
| 26 | 195 | 154 | 188 | 193 | 110 | 113 | 139 | 128 | 141 | 165 | 137 | 179 |
| 27 | 170 | 154 | 190 | 203 | 110 | 113 | 145 | 128 | 139 | 162 | 137 | 181 |
| 28 | 188 | 152 | 188 | 213 | 110 | 117 | 148 | 131 | 138 | 157 | 138 | 177 |
| 29 | 170 | 151 | 188 | 221 | ------- | 121 | 150 | 131 | 142 | 157 | 139 | 177 |
| 30 | 170 | 148 | 181 | 203 | ------- | 114 | 145 | 134 | 145 | 152 | 139 | 181 |
| 31 | 168 | ------- | 177 | 211 | ------- | 107 | ------- | 134 | ------- | 151 | 137 | ------ |

NOTE.—Because of missing gage heights discharge estimated Oct. 10–13, Dec. 6–12, 14–17, Feb. 21–24; interpolated Oct. 22, Jan 7, Apr. 25, May 9, 10, July 6, 7, and Sept. 9. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Rock Creek near Twin Falls, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 538 | 168 | 201 | 12,400 |
| November | 203 | 128 | 153 | 9,100 |
| December | | 144 | 175 | 10,800 |
| January | 221 | 175 | 199 | 12,200 |
| February | 488 | 110 | 207 | 11,500 |
| March | 121 | 105 | 111 | 6,820 |
| April | 440 | 93 | 168 | 10,000 |
| May | 182 | 127 | 138 | 8,480 |
| June | 157 | 127 | 144 | 8,570 |
| July | 177 | 151 | 161 | 9,900 |
| August | 154 | 131 | 141 | 8,670 |
| September | 234 | 138 | 164 | 9,760 |
| The year | 538 | 93 | 163 | 118,000 |

**SALMON FALLS CREEK NEAR SAN JACINTO, NEV.**

LOCATION.—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, Elko County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—September 17, 1909, to September 30, 1916; October 1, 1918, to September 30, 1926.

GAGE.—Au water-stage recorder on right bank; installed September 25, 1924; inspected by employees of Salmon River Canal Co. (Ltd.).

DISCHARGE MEASUREMENTS.—Made from cable 20 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel. Control shifts slightly. Left bank subject to overflow at high stages. Stage of zero flow determined June 12, 1926, gage height 1.70 feet ± 0.10 foot.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 4.27 feet at 2 to 3 a. m. March 17 (discharge, 350 second-feet); minimum discharge, 18 second-feet July 27 and 28.

1909–1916, 1919–1926: Maximum stage recorded, 7.5 feet May 22, 1912 (discharge, 1,280 second-feet); minimum stage, 2.28 feet July 25, 1919 (discharge, 10 second-feet).

ICE.—Stage-discharge relation not seriously affected by ice.

DIVERSIONS.—A number of diversions on ranches of Utah Construction Co. above station appropriate a large portion of low-water flow of Salmon Falls and Shoshone Creeks.

REGULATION.—None except that due to diversions. The Salmon Dam of Salmon River Canal Co., 15 miles below station, forms a reservoir having a capacity of about 180,000 acre-feet.

ACCURACY.—Stage-discharge relation not permanent. Well-defined rating curve used October 20 to July 5, and curve parallel thereto used from July 6 to September 30. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph. Shifting-control method used October 1–19 and June 15 to July 5. Records good.

COOPERATION.—Gage-height record and results of several discharge measurements furnished by Salmon River Canal Co. (Ltd.).

*Discharge measurements of Salmon Falls Creek near San Jacinto, Nev., during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 21 | 2.87 | 58 | Apr. 14 | 3.56 | 186 | June 12 | 2.46 | 22.3 |
| Mar. 2 | 3.80 | 234 | May 1 | 3.55 | 175 | June 24 | 2.38 | 20.2 |
| Do | 3.79 | 227 | May 2 | 3.57 | 181 | July 10 | 2.59 | 35.8 |
| Apr. 14 | 3.56 | 186 | May 30 | 3.17 | 107 | Aug. 23 | 2.53 | 30.4 |

*Daily discharge, in second-feet, of Salmon Falls Creek near San Jacinto, Nev., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 57 | 68 | 73 | 60 | 68 | 140 | 116 | 178 | 82 | 24 | 19 | 23 |
| 2 | 56 | 72 | 76 | 64 | 67 | 178 | 104 | 185 | 70 | 24 | 19 | 24 |
| 3 | 56 | 74 | 78 | 68 | 67 | 212 | 92 | 185 | 66 | 22 | 22 | 25 |
| 4 | 56 | 76 | 74 | 63 | 68 | 197 | 93 | 170 | 59 | 22 | 22 | 25 |
| 5 | 57 | 73 | 73 | 55 | 68 | 197 | 104 | 185 | 51 | 22 | 21 | 25 |
| 6 | 56 | 72 | 73 | 74 | 73 | 168 | 137 | 206 | 47 | 22 | 21 | 26 |
| 7 | 59 | 68 | 74 | 64 | 74 | 142 | 178 | 204 | 41 | 24 | 20 | 27 |
| 8 | 72 | 67 | 74 | 55 | 73 | 135 | 197 | 206 | 30 | 30 | 22 | 28 |
| 9 | 41 | 68 | 73 | 55 | 76 | 135 | 212 | 187 | 25 | 34 | 21 | 28 |
| 10 | 48 | 68 | 70 | 60 | 79 | 127 | 208 | 168 | 24 | 36 | 22 | 28 |
| 11 | 54 | 72 | 70 | 60 | 84 | 105 | 197 | 158 | 23 | 36 | 22 | 28 |
| 12 | 56 | 73 | 73 | 52 | 82 | 98 | 197 | 148 | 22 | 36 | 22 | 30 |
| 13 | 60 | 73 | 73 | 52 | 79 | 120 | 189 | 137 | 20 | 34 | 25 | 31 |
| 14 | 59 | 73 | 68 | 52 | 76 | 204 | 178 | 131 | 20 | 30 | 25 | 41 |
| 15 | 60 | 73 | 64 | 66 | 76 | 274 | 162 | 122 | 20 | 30 | 25 | 42 |
| 16 | 60 | 74 | 70 | 51 | 74 | 301 | 166 | 114 | 20 | 29 | 24 | 41 |
| 17 | 58 | 72 | 67 | 64 | 74 | 314 | 170 | 110 | 20 | 28 | 24 | 38 |
| 18 | 59 | 72 | 70 | 66 | 74 | 281 | 178 | 104 | 20 | 28 | 26 | 29 |
| 19 | 60 | 72 | 68 | 60 | 72 | 227 | 189 | 100 | 20 | 28 | 30 | 27 |
| 20 | 60 | 72 | 58 | 56 | 73 | 212 | 193 | 105 | 20 | 28 | 30 | 26 |
| 21 | 61 | 68 | 76 | 52 | 76 | 202 | 195 | 114 | 20 | 26 | 30 | 26 |
| 22 | 72 | 66 | 72 | 66 | 76 | 193 | 191 | 125 | 20 | 25 | 31 | 27 |
| 23 | 68 | 67 | 72 | 51 | 73 | 176 | 187 | 137 | 20 | 24 | 30 | 28 |
| 24 | 68 | 67 | 72 | 60 | 72 | 176 | 183 | 135 | 20 | 24 | 30 | 28 |
| 25 | 67 | 68 | 72 | 49 | 73 | 180 | 174 | 137 | 20 | 24 | 28 | 30 |
| 26 | 68 | 68 | 73 | 48 | 73 | 170 | 170 | 137 | 19 | 22 | 28 | 34 |
| 27 | 70 | 70 | 70 | 43 | 85 | 148 | 160 | 135 | 19 | 18 | 27 | 36 |
| 28 | 70 | 72 | 66 | 48 | 123 | 137 | 156 | 123 | 20 | 18 | 25 | 36 |
| 29 | 68 | 72 | 68 | 59 | ------ | 123 | 160 | 116 | 23 | 19 | 23 | 40 |
| 30 | 67 | 72 | 50 | 67 | ------ | 118 | 166 | 105 | 24 | 19 | 22 | 44 |
| 31 | 68 | ------ | 47 | 68 | ------ | 118 | ------ | 95 | ------ | 19 | 22 | ------ |

*Monthly discharge of Salmon Falls Creek near San Jacinto, Nev., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 72 | 41 | 61.0 | 3,750 |
| November | 76 | 66 | 70.7 | 4,210 |
| December | 78 | 47 | 69.6 | 4,280 |
| January | 74 | 43 | 58.3 | 3,580 |
| February | 123 | 67 | 76.0 | 4,220 |
| March | 314 | 98 | 178 | 10,900 |
| April | 212 | 92 | 167 | 9,940 |
| May | 206 | 95 | 144 | 8,850 |
| June | 82 | 19 | 30.2 | 1,800 |
| July | 36 | 18 | 26.0 | 1,600 |
| August | 31 | 19 | 24.5 | 1,510 |
| September | 44 | 23 | 30.7 | 1,830 |
| The year | 314 | 18 | 78.0 | 56,500 |

### BIG WOOD RIVER AT HAILEY, IDAHO

LOCATION.—In sec. 9, T. 2 N., R. 18 E., at steel highway bridge a quarter of a mile southwest of Hailey, Blaine County.

DRAINAGE AREA.—640 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 11, 1915, to September 30, 1926.

GAGE.—Vertical staff in two sections on right bank, installed October 2, 1922; read by R. F. Bowman and C. J. Bradley.

DISCHARGE MEASUREMENTS.—Made from highway bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of coarse gravel and sand; clean. Banks low; covered with light brush. Log cribbing along left bank constructed in April, 1922, prevents overflow and confines flood discharge in one channel. Control subject to change at high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.60 feet at 8 a. m. April 30 (discharge, 945 second-feet); minimum stage, 0.46 foot at 5.30 p. m. August 26 (discharge, 4.8 second-feet). A lower discharge may have occurred during estimated periods.

1915–1926: Maximum stage recorded, 5.70 feet June 12, 1921 (discharge, 3,560 second-feet); minimum discharge, 0.1 second-foot September 10–20 and October 2–9, 1924.

ICE.—Stage-discharge relation slightly affected by ice.

DIVERSIONS.—A number of small diversions for irrigation, principally from tributaries, are made above station. Hailey power plant, half a mile upstream, utilizes as a tailrace a natural channel on east side of river known as Big Wood Slough. A large amount of water is diverted from main stream in this manner and is returned to river below station. A record of the flow of Big Wood Slough is being obtained (see p. 129), and the total flow of Big Wood River is represented by amount of water passing both stations.

REGULATION.—Variation in the amount of water used at Hailey power plant causes some diurnal fluctuation at gage, but as observations on the river and on Big Wood Slough are practically simultaneous each day, the effect of such regulation is probably eliminated.

ACCURACY.—Stage-discharge relation changed slightly during winter; affected by ice December 18 to February 1. Two rating curves used; the first, applicable October 1 to December 18, is well defined below 2,000 second-feet; the second, applicable February 2 to September 30, is well defined below 800 second-feet. Gage read twice daily to hundredths April 28 to September 25 and once daily at other times except during winter. Daily discharge ascertained by applying daily or mean daily gage height to rating table except as indicated in footnote to table of daily discharge. Records good except for estimated periods, for which they are poor.

COOPERATION.—Five discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Tables of combined discharge of Big Wood River and Big Wood Slough are published herein.

*Discharge measurements of Big Wood River at Hailey, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 15 | 1.52 | 110 | May 10 | 2.73 | 476 | July 11 | 1.12 | 54 |
| Mar. 28 | 1.71 | 144 | June 7 | 2.83 | 510 | July 13 | 1.04 | 40.6 |
| Apr. 27 | 3.30 | 737 | June 24 | 2.07 | 238 | Aug. 3 | .72 | 15.7 |
| May 7 | 3.04 | 631 | June 29 | 1.50 | 109 | Sept. 12 | .53 | 6.8 |

*Daily discharge, in second-feet, of Big Wood River at Hailey, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 99 | 83 | 11 | | 8.0 | 9.2 | 75 | 880 | 500 | 118 | 16 | 6.0 |
| 2 | 99 | 74 | 12 | | 8.4 | 9.2 | 61 | 850 | 500 | 104 | 16 | 6.4 |
| 3 | 99 | | 11 | | 8.4 | 9.2 | 114 | 820 | 500 | 95 | 14 | 6.4 |
| 4 | 96 | | 10 | | 8.4 | 10 | 107 | 760 | 525 | 87 | 15 | 6.4 |
| 5 | 96 | 15 | 10 | 9 | 8.4 | 9.2 | 118 | 790 | 478 | 78 | 12 | 6.4 |
| 6 | 157 | | 10 | | 9.2 | 9.2 | 125 | 678 | 478 | 64 | 12 | 6.4 |
| 7 | 114 | | 10 | | 9.2 | 10 | 177 | 625 | 478 | 59 | 11 | 6.4 |
| 8 | 106 | | 10 | | 9.2 | 10 | 201 | 550 | 455 | 81 | 10 | 6.8 |
| 9 | 103 | 7.3 | 10 | | 9.2 | 11 | 207 | 478 | 395 | 72 | 8.8 | 6.8 |
| 10 | 103 | 7.3 | 9.6 | | 9.2 | 12 | 322 | 455 | 375 | 59 | 8.0 | 6.4 |
| 11 | 114 | 8.0 | 9.6 | | 9.2 | 11 | 305 | 415 | 358 | 49 | 8.0 | 6.4 |
| 12 | 117 | 8.0 | 9.6 | | 9.2 | 13 | 340 | 395 | 340 | 45 | 7.2 | 6.8 |
| 13 | 106 | 8.0 | 9.6 | | 9.2 | 26 | 375 | 375 | 322 | 38 | 7.2 | 6.8 |
| 14 | 106 | 7.3 | 9.6 | | 9.2 | 93 | 415 | 395 | 305 | 30 | 6.8 | 7.2 |
| 15 | 108 | 8.0 | 9.6 | 8 | 10 | 163 | 525 | 415 | 290 | 16 | 6.8 | 6.8 |
| 16 | 106 | 8.0 | 9.6 | | 10 | 158 | 625 | 455 | 290 | 16 | 6.8 | 6.8 |
| 17 | 106 | 8.8 | 9.6 | | 10 | 158 | 705 | 455 | 275 | 16 | 6.8 | 7.2 |
| 18 | 103 | 8.8 | 10 | | 9.2 | 145 | 705 | 478 | 260 | 16 | 6.4 | 6.0 |
| 19 | 99 | 8.0 | | | 9.2 | 145 | 732 | 525 | 260 | 17 | 7.6 | 5.4 |
| 20 | 96 | 8.0 | | | 9.2 | 145 | 705 | 650 | 260 | 19 | 7.2 | 5.4 |
| 21 | 96 | 8.0 | | | 9.2 | 149 | 678 | 650 | 245 | 17 | 6.8 | 5.4 |
| 22 | 96 | 8.0 | | | 9.2 | 167 | 650 | 625 | 231 | 17 | 6.8 | 5.4 |
| 23 | 99 | 8.0 | | | 9.2 | 181 | 600 | 678 | 231 | 17 | 6.8 | 6.4 |
| 24 | 96 | 8.0 | | | 9.2 | 177 | 575 | 650 | 231 | 17 | 6.4 | 5.7 |
| 25 | 96 | 8.0 | 10 | 7 | 9.2 | 167 | 625 | 550 | 231 | 16 | 5.4 | 5.7 |
| 26 | 96 | 8.8 | | | 9.2 | 149 | 705 | 500 | 217 | 16 | 5.4 | 5.4 |
| 27 | 92 | 8.8 | | | 9.2 | 148 | 732 | 500 | 217 | 19 | 5.7 | 5.4 |
| 28 | 92 | 9.6 | | | 9.2 | 147 | 820 | 525 | 111 | 18 | 5.7 | 6.0 |
| 29 | 92 | 9.6 | | | ------- | 33 | 850 | 550 | 107 | 17 | 5.7 | 6.0 |
| 30 | 89 | 9.6 | | | ------- | 149 | 945 | 550 | 102 | 16 | 5.7 | 6.8 |
| 31 | 89 | ------- | | | ------- | 145 | ------- | 478 | ------- | 16 | 5.4 | ------ |

NOTE.—Discharge estimated Nov. 3–8 and Dec. 18 to Feb. 1, based on observer's notes and weather records. Discharge interpolated Mar. 27. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Big Wood River at Hailey, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 157 | 89 | 102 | 6,270 |
| November | 83 | ---------- | 14.3 | 851 |
| December | 12 | ---------- | 10.0 | 615 |
| January | ---------- | ---------- | 8.0 | 490 |
| February | 10 | ---------- | 9.13 | 507 |
| March | 181 | 9.2 | 89.3 | 5,490 |
| April | 945 | 61 | 471 | 28,000 |
| May | 880 | 375 | 571 | 35,100 |
| June | 525 | 102 | 319 | 19,000 |
| July | 118 | 16 | 40.8 | 2,510 |
| August | 16 | 5.4 | 8.37 | 515 |
| September | 7.2 | 5.4 | 6.25 | 372 |
| The year | 945 | 5.4 | 138 | 99,700 |

*Daily combined discharge, in second-feet, of Big Wood River and Big Wood Slough at Hailey, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 228 | 212 | 218 | 153 | 148 | 161 | 234 | 953 | 521 | 244 | 110 | 109 |
| 2 | 228 | 184 | 229 | 161 | 148 | 161 | 209 | 925 | 521 | 210 | 113 | 109 |
| 3 | 228 | 112 | 218 | 161 | 148 | 161 | 233 | 888 | 519 | 201 | 114 | 122 |
| 4 | 225 | 183 | 208 | 161 | 148 | 165 | 226 | 830 | 546 | 216 | 112 | 122 |
| 5 | 225 | 183 | 199 | 161 | 141 | 161 | 244 | 887 | 498 | 215 | 106 | 116 |
| 6 | 350 | 208 | 199 | 161 | 142 | 161 | 273 | 753 | 499 | 219 | 106 | 112 |
| 7 | 290 | 237 | 199 | 161 | 149 | 162 | 296 | 686 | 498 | 211 | 105 | 112 |
| 8 | 265 | 256 | 199 | 161 | 157 | 162 | 353 | 583 | 475 | 244 | 162 | 113 |
| 9 | 262 | 229 | 199 | 168 | 157 | 179 | 366 | 508 | 414 | 227 | 164 | 110 |
| 10 | 255 | 248 | 190 | 168 | 157 | 197 | 353 | 481 | 396 | 207 | 148 | 109 |
| 11 | 273 | 220 | 190 | 167 | 149 | 187 | 338 | 434 | 376 | 193 | 148 | 106 |
| 12 | 276 | 210 | 190 | 167 | 149 | 198 | 375 | 413 | 361 | 185 | 133 | 107 |
| 13 | 265 | 193 | 173 | 160 | 149 | 219 | 420 | 390 | 346 | 175 | 129 | 104 |
| 14 | 265 | 183 | 165 | 160 | 149 | 222 | 478 | 411 | 328 | 156 | 126 | 104 |
| 15 | 267 | 176 | 158 | 160 | 158 | 273 | 542 | 432 | 314 | 138 | 117 | 113 |
| 16 | 265 | 220 | 158 | 160 | 158 | 302 | 647 | 477 | 314 | 138 | 120 | 110 |
| 17 | 258 | 202 | 165 | 160 | 158 | 310 | 737 | 478 | 298 | 142 | 117 | 113 |
| 18 | 255 | 185 | 173 | 160 | 157 | 289 | 739 | 503 | 280 | 135 | 112 | 109 |
| 19 | 243 | 176 | 173 | 160 | 157 | 282 | 771 | 552 | 280 | 136 | 137 | 108 |
| 20 | 240 | 167 | 173 | 160 | 157 | 282 | 740 | 694 | 277 | 152 | 133 | 108 |
| 21 | 240 | 160 | 173 | 159 | 149 | 293 | 713 | 690 | 260 | 136 | 126 | 108 |
| 22 | 240 | 167 | 173 | 159 | 142 | 319 | 680 | 656 | 244 | 136 | 129 | 108 |
| 23 | 243 | 176 | 165 | 159 | 142 | 349 | 627 | 705 | 243 | 127 | 117 | 109 |
| 24 | 240 | 184 | 165 | 151 | 149 | 345 | 599 | 677 | 243 | 127 | 106 | 122 |
| 25 | 233 | 184 | 165 | 151 | 149 | 319 | 652 | 572 | 244 | 119 | 99 | 122 |
| 26 | 225 | 194 | 165 | 159 | 157 | 286 | 742 | 521 | 230 | 113 | 102 | 118 |
| 27 | 221 | 202 | 150 | 159 | 157 | 277 | 776 | 520 | 229 | 122 | 119 | 118 |
| 28 | 221 | 203 | 150 | 151 | 164 | 287 | 873 | 546 | 202 | 121 | 100 | 119 |
| 29 | 221 | 203 | 150 | 151 | ------- | 226 | 911 | 572 | 236 | 117 | 100 | 125 |
| 30 | 218 | 203 | 150 | 151 | ------- | 265 | 1,030 | 573 | 228 | 110 | 100 | 133 |
| 31 | 218 | ------- | 158 | 151 | ------- | 282 | ------- | 497 | ------- | 110 | 105 | ------- |

NOTE.—For estimated periods refer to tables for Big Wood River at Hailey and Big Wood Slough at Hailey.

*Monthly combined discharge of Big Wood River and Big Wood Slough at Hailey, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 350 | 218 | 248 | 15,200 |
| November | 256 | 112 | 195 | 11,600 |
| December | 229 | 150 | 179 | 11,000 |
| January | 168 | 151 | 159 | 9,780 |
| February | 164 | 141 | 152 | 8,440 |
| March | 349 | 161 | 241 | 14,800 |
| April | 1,030 | 209 | 539 | 32,100 |
| May | 953 | 390 | 607 | 37,300 |
| June | 546 | 202 | 347 | 20,600 |
| July | 244 | 110 | 164 | 10,100 |
| August | 164 | 99 | 120 | 7,380 |
| September | 133 | 104 | 113 | 6,720 |
| The year | 1,030 | 99 | 256 | 185,000 |

### BIG WOOD RIVER NEAR BELLEVUE, IDAHO

LOCATION.—In sec. 20, T. 1 S., R. 18 E., just below Blair ranch house, 1¾ miles above flow line of Magic Reservoir, and 10 miles southwest of Bellevue, Blaine County. Camas Creek enters reservoir 3 miles below station.

DRAINAGE AREA.—823 square miles (measured on topographic and Land Office maps).

RECORDS AVAILABLE.—July 6, 1911, to September 30, 1926.

GAGE.—Gurley water-stage recorder on right bank; inspected by S. H. Chapman.

DISCHARGE MEASUREMENTS.—Made from cable 150 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of coarse gravel. Control of same material; shifts occasionally. Banks clean; may be overflowed at extremely high stages.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 2.44 feet at 3 p. m. April 19 and 11 a. m. April 20 (discharge, 602 second-feet); minimum stage recorded, 1.17 feet 6 to 10 p. m. August 24 (discharge, 37 second-feet).

1911–1926: Maximum stage recorded, 6.07 feet at 7 p. m. June 16, 1921 (discharge, 3,660 second-feet); minimum discharge, 25 second-feet April 22–24, 1920; lower flow may have occurred on a day of no record.

ICE.—Stage-discharge relation seldom affected by ice; records discontinued during winter.

DIVERSIONS.—Numerous diversions for irrigation above station. Flood waters stored in Magic Reservoir.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent during period of record. Rating curve will defined between 30 and 2,000 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph except as indicated in footnote to table of daily discharge. Records good.

COOPERATION.—Gage-height record and five discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

*Discharge measurements of Big Wood River near Bellevue, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 16 | 1.73 | 201 | May 28 | 1.66 | 165 | July 12 | 1.33 | 72 |
| Apr. 20 | 2.43 | 593 | June 8 | 1.54 | 132 | July 13 | 1.31 | 66 |
| May 8 | 1.71 | 184 | June 15 | 1.40 | 93 | Aug. 11 | 1.24 | 50 |

*Daily discharge, in second-feet, of Big Wood River near Bellevue, Idaho, for the year ending September 30, 1926*

| Day | Mar. | Apr. | May | June | July | Aug. | Sept. | Day | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | } | 502 | 171 | 69 | 48 | 46 | 16 | ------ | 419 | 98 | 90 | 62 | 49 | 44 |
| 2 | ------ | | 474 | 161 | 67 | 47 | 44 | 17 | ------ | 488 | 101 | 96 | 62 | 46 | 44 |
| 3 | ------ | | 419 | 151 | 64 | 46 | 44 | 18 | ------ | 532 | 98 | 96 | 57 | 44 | 46 |
| 4 | ------ | }150 | 338 | 139 | 64 | 47 | 46 | 19 | ------ | 578 | 110 | 101 | 57 | 46 | 44 |
| 5 | ------ | | 343 | 136 | 64 | 47 | 44 | 20 | ------ | 562 | 181 | 98 | 53 | 46 | 42 |
| 6 | ------ | } | 321 | 142 | 62 | 47 | 46 | 21 | ------ | 495 | 218 | 90 | 53 | 46 | 42 |
| 7 | ------ | 181 | 256 | 142 | 62 | 48 | 46 | 22 | ------ | 474 | 207 | 82 | 55 | 46 | 42 |
| 8 | ------ | 207 | 200 | 127 | 77 | 48 | 44 | 23 | ------ | 453 | 207 | 74 | 53 | 46 | 40 |
| 9 | ------ | 222 | 151 | 115 | 98 | 48 | 44 | 24 | ------ | 453 | 196 | 74 | 55 | 40 | 40 |
| 10 | ------ | 252 | 133 | 98 | 82 | 48 | 44 | 25 | ------ | 446 | 178 | 77 | 55 | 40 | 42 |
| 11 | ------ | 256 | 98 | 85 | 74 | 49 | 44 | 26 | ------ | 481 | 161 | 74 | 55 | 40 | 42 |
| 12 | ------ | 256 | 80 | 74 | 69 | 51 | 44 | 27 | ------ | 488 | 171 | 74 | 53 | 42 | 42 |
| 13 | ------ | 280 | 82 | 74 | 69 | 51 | 44 | 28 | ------ | 510 | 161 | 74 | 52 | 44 | 42 |
| 14 | ------ | 310 | 96 | 80 | 67 | 51 | 44 | 29 | ------ | 562 | 174 | 72 | 51 | 44 | } 45 |
| 15 | ------ | 348 | 98 | 87 | 64 | 49 | 44 | 30 | ------ | 532 | 196 | 69 | 50 | 44 | |
| | | | | | | | | 31 | 164 | ----- | 188 | ----- | 49 | 46 | ------ |

NOTE.—Because of missing gage heights discharge estimated by comparison with records for other stations in vicinity Apr. 1–6, Sept. 29, 30; interpolated July 28–31, Aug. 1, 2, 4–10. Braced figures show mean estimated discharge for periods indicated.

*Monthly discharge of Big Wood River near Bellevue, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| March 31 | | | 164 | 325 |
| April | 578 | | 356 | 21,200 |
| May | 502 | 80 | 201 | 12,400 |
| June | 171 | 69 | 101 | 6,010 |
| July | 98 | 49 | 62.1 | 3,820 |
| August | 51 | 40 | 46.3 | 2,850 |
| September | | 40 | 43.7 | 2,600 |
| The period | | | | 49,200 |

### MAGIC RESERVOIR NEAR RICHFIELD, IDAHO

LOCATION.—In NE. ¼ SE. ¼ sec. 18, T. 2 S., R. 18 E., Blaine County, 18 miles northwest of Richfield, Lincoln County.

DRAINAGE AREA.—1,500 square miles (furnished by Idaho Irrigation Co.).

RECORDS AVAILABLE.—February 3, 1909, to September 30, 1926. Prior to April 4, 1909, gage-height record only is available. Practically no storage prior to July 14, 1909, when first stop logs were placed in tunnel entrance.

GAGE.—All readings made by measuring with a weighted steel tape from tower on east side of dam. Below elevation 4,855 feet readings obtained by measuring from a well-defined offset in walls of tower; when stages are above that elevation measurements are made in a 5⅝-inch well casing which serves as a stilling well, bolted to face of tower. Readings made by attendant at the dam. Observations are referred to an assumed datum which is about 137 feet lower than sea level. (To change readings to sea-level datum about 137 feet should be subtracted.)

EXTREMES OF CONTENTS.—Maximum stage recorded during year, 4,920.33 feet April 29 (contents, 140,500 acre-feet); minimum stage recorded, 4,841.91 feet September 4 (contents, 4,445 acre-feet).

1909–1926: Maximum stage recorded, 4,935.08 feet June 18, 1922 (contents, 191,818 acre-feet); reservoir drained December 24–26 and 29, 1909, August 25, September 11–16, 19, 21, 22, December 14–18, and 21–31, 1919, January 1–6, August 9, 10, and 20–23, 1920, and August 29 to September 30, 1924.

COOPERATION.—Gage-height record furnished by water master for Big Wood and Little Wood Rivers.

Stored water from this reservoir is used for irrigation on about 69,000 acres of land, under Carey Act project of the Big Wood Canal Co. (Ltd.). Elevation of bottom of outlet gates corresponds to 4,818.5 feet on gage, which is about 3 feet lower than the actual stage of zero storage. Elevation of concrete lip spillway crest corresponds to 4,930 feet on gage. Use of a system of flashboards extends the actual elevation of spillway crest to 4,935 feet, at which stage the capacity of reservoir is about 191,000 acre-feet, about 4,000 acres being submerged at this stage.

*Daily contents, in acre-feet, of Magic Reservoir near Richfield, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 38,610 | 50,560 | 55,990 | 65,710 | 71,100 | 74,970 | 116,360 | 139,980 | 84,800 | 19,840 | 8,340 | 5,256 |
| 2 | 38,890 | 50,820 | 56,320 | 65,870 | 71,240 | 75,200 | 117,020 | 139,350 | 82,780 | 17,840 | 8,374 | 5,281 |
| 3 | 39,170 | 51,170 | 56,720 | 66,090 | 71,340 | 75,410 | 117,610 | 138,310 | 80,730 | 16,220 | 8,422 | 4,852 |
| 4 | 39,450 | 51,490 | 57,240 | 66,270 | 71,500 | 75,660 | 118,280 | 136,830 | 78,780 | 14,600 | 8,456 | 4,445 |
| 5 | 39,790 | 51,820 | 57,540 | 66,550 | 71,700 | 75,950 | 118,890 | 135,310 | 76,900 | 13,800 | 7,966 | 4,467 |
| 6 | 40,160 | 52,060 | 57,870 | 66,670 | 71,890 | 76,630 | 119,590 | 133,950 | 74,680 | 12,700 | 7,459 | 4,512 |
| 7 | 40,560 | 52,340 | 58,300 | 66,910 | 72,050 | 77,040 | 120,390 | 132,550 | 72,700 | 12,380 | 7,030 | 4,553 |
| 8 | 40,910 | 52,620 | 58,680 | 67,110 | 72,190 | 77,400 | 121,340 | 131,070 | 70,630 | 12,520 | 6,725 | 4,590 |
| 9 | 41,340 | 52,920 | 58,970 | 67,320 | 72,310 | 77,800 | 122,420 | 129,380 | 68,600 | 12,700 | 6,488 | 4,613 |
| 10 | 41,810 | 53,120 | 59,260 | 67,520 | 72,500 | 78,360 | 123,430 | 127,650 | 66,570 | 13,010 | 6,557 | 4,682 |
| 11 | 42,190 | 53,350 | 59,630 | 67,740 | 72,600 | 78,740 | 124,550 | 125,900 | 64,130 | 13,150 | 6,635 | 4,714 |
| 12 | 42,600 | 53,520 | 59,960 | 67,940 | 72,780 | 79,330 | 125,540 | 124,120 | 62,440 | 13,380 | 6,665 | 4,746 |
| 13 | 43,000 | 53,890 | 60,290 | 68,140 | 72,880 | 80,620 | 126,640 | 122,340 | 60,480 | 13,550 | 6,695 | 4,769 |
| 14 | 43,620 | 54,160 | 60,580 | 68,260 | 73,000 | 82,780 | 127,650 | 120,610 | 58,300 | 12,960 | 6,725 | 4,811 |
| 15 | 44,020 | 54,480 | 60,850 | 68,360 | 73,130 | 84,870 | 128,770 | 118,780 | 56,110 | 12,470 | 6,774 | 4,838 |
| 16 | 44,370 | 54,010 | 61,170 | 68,480 | 73,250 | 86,480 | 129,950 | 116,890 | 53,970 | 12,120 | 6,004 | 4,866 |
| 17 | 44,710 | 53,180 | 61,420 | 68,600 | 73,350 | 89,130 | 131,220 | 114,970 | 51,930 | 11,860 | 5,003 | 4,889 |
| 18 | 45,080 | 52,660 | 61,640 | 68,780 | 73,540 | 91,550 | 132,640 | 112,960 | 49,850 | 11,440 | 4,636 | 4,921 |
| 19 | 45,640 | 52,560 | 61,970 | 69,040 | 73,640 | 93,820 | 134,090 | 110,890 | 47,770 | 10,660 | 4,691 | 4,959 |
| 20 | 46,100 | 52,860 | 62,340 | 69,160 | 73,720 | 96,220 | 135,600 | 109,050 | 45,690 | 9,343 | 4,778 | 4,993 |
| 21 | 46,480 | 53,140 | 62,640 | 69,270 | 73,910 | 99,880 | 137,120 | 107,020 | 43,590 | 8,136 | 4,875 | 5,022 |
| 22 | 46,870 | 53,330 | 62,950 | 69,410 | 74,030 | 102,910 | 137,570 | 105,170 | 41,730 | 7,731 | 4,935 | 5,047 |
| 23 | 47,270 | 53,520 | 63,190 | 69,510 | 74,150 | 105,320 | 137,810 | 103,260 | 39,270 | 7,790 | 5,003 | 5,071 |
| 24 | 47,630 | 53,820 | 63,560 | 69,650 | 74,270 | 107,600 | 138,310 | 101,100 | 36,890 | 7,871 | 5,047 | 5,106 |
| 25 | 48,040 | 54,060 | 63,840 | 69,810 | 74,380 | 109,610 | 139,200 | 99,080 | 34,560 | 7,973 | 5,081 | 5,141 |
| 26 | 48,420 | 54,310 | 64,130 | 70,010 | 74,540 | 111,560 | 140,130 | 97,000 | 32,330 | 8,027 | 5,101 | 5,176 |
| 27 | 48,820 | 54,670 | 64,350 | 70,210 | 74,660 | 112,980 | 140,400 | 95,090 | 30,190 | 8,095 | 5,111 | 5,216 |
| 28 | 49,190 | 54,890 | 64,780 | 70,390 | 74,810 | 114,210 | 140,400 | 92,870 | 27,420 | 8,204 | 5,156 | 5,266 |
| 29 | 49,480 | 55,290 | 65,040 | 70,550 | ------- | 115,266 | 140,500 | 90,680 | 24,880 | 8,252 | 5,191 | 5,331 |
| 30 | 49,860 | 55,610 | 65,300 | 70,730 | ------- | 116,070 | 140,370 | 88,730 | 22,340 | 8,272 | 5,211 | 5,381 |
| 31 | 50,210 | ------- | 65,500 | 70,890 | ------- | 116,100 | -------- | 86,440 | ------- | 8,306 | 5,236 | ------ |

**BIG WOOD RIVER BELOW MAGIC DAM, NEAR RICHFIELD, IDAHO**

LOCATION.—In sec. 18, T. 2 S., R. 18 E., Blaine County, half a mile below Magic Dam and 18 miles northwest of Richfield, Lincoln County. No tributaries between dam and station.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 19, 1911, to September 30, 1926.

GAGE.—Gurley water-stage recorder on right bank, installed April 20, 1916, inspected by Ed Dayton.

DISCHARGE MEASUREMENTS.—Made from cable at gage or by wading.

CHANNEL AND CONTROL.—Bed and control composed of clean coarse gravel and small boulders; somewhat shifting. Banks high and brushy.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 4.97 feet from 9 p. m. to midnight June 30 (discharge, 1,420 second-feet); minimum stage, 1.61 feet from 8 p. m. September 27, to 7 a. m., September 28 (discharge, 15 second-feet).

1911–1916: Maximum stage recorded, 9.2 feet, May 18, 1911 (discharge, 5,070 second-feet); no flow reported February 3, 1915.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—No diversions are made by Big Wood Canal Co. above this station, but numerous ranch diversions are made in the upper part of basin, the largest quantity of water probably being used in the district below Hailey. Flood waters are stored in Magic Reservoir just above station and the first diversion by the company is Richfield Canal 2 miles below.

REGULATION.—Flow past station completely regulated by gates in outlet tunnel at Magic Dam.

ACCURACY.—Stage-discharge relation changed several times during year. Rating curve used prior to November 20 well defined between 20 and 2,500 second-feet; curve used November 20 to September 30 well defined between 20 and 1,600 second-feet. Operation of water-stage recorder satisfactory except during winter when staff gage was read to hundredths once a week. Daily discharge ascertained by applying daily or mean daily gage height to rating table or by averaging discharges for intervals of a day, except as indicated in footnote to table of daily discharge. Shifting-control method used May 13 to June 27 and August 25 to September 30. During periods water-stage recorder was operated mean daily gage height was determined by inspection of recorder graph. Records good except during winter, for which they are fair.

COOPERATION.—Gage-height record and several discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

*Discharge measurements of Big Wood River below Magic Dam, near Richfield, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 18 | 1.82 | 25.4 | May 20 | 4.62 | 1,140 | June 21 | 4.54 | 1,150 |
| Apr. 9 | 1.84 | 24.0 | May 29 | 4.68 | 1,220 | June 30 | 4.92 | 1,420 |
| Apr. 22 | 3.60 | 577 | June 11 | 4.51 | 1,100 | July 14 | 3.01 | 296 |
| May 2 | 4.28 | 993 | Do | 4.52 | 1,130 | Aug. 12 | 1.99 | 36.4 |
| May 6 | 4.40 | 1,070 | June 14 | 4.50 | 1,100 | | | |
| May 12 | 4.35 | 1,020 | June 21 | 4.54 | 1,130 | | | |

*Daily discharge, in second-feet, of Big Wood River below Magic Dam, near Richfield, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 31 | 24 | 16 | 16 | 18 | 19 | 94 | 834 | 1,160 | 1,330 | 36 | 42 |
| 2 | 28 | 24 | 16 | 16 | 18 | 19 | 23 | 995 | 1,160 | 865 | 36 | 234 |
| 3 | 26 | 24 | 16 | 16 | 18 | 19 | 23 | 1,160 | 1,200 | 865 | 36 | 289 |
| 4 | 25 | 25 | 16 | 16 | 18 | 19 | 23 | 1,160 | 1,160 | 865 | 228 | 151 |
| 5 | 26 | 25 | 16 | 16 | 18 | 19 | 23 | 1,100 | 1,160 | 459 | 293 | 39 |
| 6 | 26 | 25 | 16 | 16 | 18 | 19 | 23 | 1,060 | 1,160 | 384 | 254 | 38 |
| 7 | 25 | 25 | 16 | 16 | 18 | 19 | 23 | 1,060 | 1,160 | 25 | 250 | 38 |
| 8 | 25 | 25 | 16 | 16 | 18 | 19 | 24 | 1,060 | 1,160 | 27 | 247 | 38 |
| 9 | 26 | 24 | 16 | 16 | 18 | 19 | 24 | 1,060 | 1,160 | 27 | 38 | 32 |
| 10 | 26 | 24 | 16 | 16 | 18 | 19 | 24 | 1,060 | 1,130 | 25 | 38 | 27 |
| 11 | 26 | 24 | 16 | 16 | 18 | 19 | 24 | 1,060 | 1,100 | 26 | 38 | 42 |
| 12 | 26 | 24 | 16 | 16 | 18 | 19 | 24 | 1,030 | 1,100 | 30 | 38 | 43 |
| 13 | 26 | 24 | 16 | 17 | 18 | 19 | 24 | 1,030 | 1,100 | 197 | 37 | 43 |
| 14 | 25 | 24 | 16 | 17 | 18 | 19 | 24 | 1,030 | 1,100 | 297 | 37 | 44 |
| 15 | 24 | 188 | 16 | 17 | 18 | 19 | 24 | 1,060 | 1,100 | 289 | 296 | 44 |
| 16 | 24 | 624 | 16 | 17 | 18 | 19 | 24 | 1,100 | 1,100 | 224 | 589 | 44 |
| 17 | 24 | 523 | 16 | 17 | 18 | 19 | 24 | 1,100 | 1,100 | 250 | 454 | 43 |
| 18 | 25 | 271 | 16 | 17 | 19 | 20 | 24 | 1,130 | 1,130 | 394 | 34 | 43 |
| 19 | 26 | 44 | 16 | 17 | 19 | 20 | 24 | 1,160 | 1,130 | 643 | 25 | 43 |
| 20 | 26 | 16 | 16 | 17 | 19 | 20 | 25 | 1,160 | 1,130 | 785 | 31 | 44 |
| 21 | 26 | 16 | 16 | 17 | 19 | 20 | 329 | 1,200 | 1,130 | 484 | 31 | 44 |
| 22 | 26 | 16 | 16 | 17 | 19 | 20 | 546 | 1,230 | 1,160 | 51 | 30 | 44 |
| 23 | 26 | 16 | 16 | 17 | 19 | 20 | 529 | 1,260 | 1,160 | 36 | 34 | 37 |
| 24 | 26 | 16 | 16 | 17 | 19 | 20 | 98 | 1,260 | 1,200 | 36 | 39 | 31 |
| 25 | 25 | 16 | 16 | 17 | 19 | 20 | 98 | 1,260 | 1,200 | 36 | 40 | 30 |
| 26 | 25 | 16 | 16 | 17 | 19 | 21 | 305 | 1,260 | 1,230 | 36 | 40 | 31 |
| 27 | 25 | 16 | 16 | 18 | 19 | 21 | 567 | 1,230 | 1,260 | 36 | 40 | 21 |
| 28 | 25 | 16 | 16 | 18 | 19 | 21 | 573 | 1,230 | 1,290 | 36 | 40 | 35 |
| 29 | 25 | 16 | 16 | 18 | ------- | 21 | 693 | 1,230 | 1,330 | 36 | 40 | 32 |
| 30 | 25 | 16 | 16 | 18 | ------- | 221 | 791 | 1,200 | 1,390 | 36 | 42 | 32 |
| 31 | 24 | ------- | 16 | 18 | ------- | 331 | ------- | 1,160 | ------- | 36 | 42 | ------ |

NOTE.—Because of missing gage heights discharge interpolated Jan. 5-8, 10-15, 17-22, 24-29, 31, Feb. 1-6, 8-13, 15-20, 22-27, Mar. 1-6, 8-13, 15-20.

*Monthly discharge of Big Wood River below Magic Dam, near Richfield, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 31 | 24 | 25.6 | 1,570 |
| November | 624 | 16 | 72.2 | 4,300 |
| December | 16 | 16 | 16.0 | 984 |
| January | 18 | 16 | 16.8 | 1,030 |
| February | 19 | 18 | 18.4 | 1,020 |
| March | 331 | 19 | 36.1 | 2,220 |
| April | 791 | 23 | 169 | 10,100 |
| May | 1,260 | 834 | 1,130 | 69,500 |
| June | 1,390 | 1,100 | 1,170 | 69,600 |
| July | 1,330 | 25 | 286 | 17,600 |
| August | 589 | 25 | 111 | 6,820 |
| September | 289 | 21 | 56.6 | 3,370 |
| The year | 1,390 | 16 | 259 | 188,000 |

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

LOCATION.—In sec. 15, T. 4 S., R. 18 E., 300 yards below headworks of North Gooding Canal, 13 miles northeast of Shoshone, Lincoln County, and 14 miles below Magic Dam.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—January 1, 1911, to September 30, 1926.

GAGE.—Gurley 7-day water-stage recorder on right bank; inspected by water master for Big Wood and Little Wood Rivers and his assistants.

DISCHARGE MEASUREMENTS.—Made from cable about 100 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock; practically permanent; rough. At extreme high stages water overflowed above North Gooding diversion dam into secondary channel to left of gage. Control fairly well defined.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 4.22 feet at 4 p. m. April 27 (discharge, 400 second-feet); channel reported dry the greater part of year.

1911–1926: Maximum stage recorded, 15.0 feet (old datum) May 18, 1911 (discharge, 3,180 second-feet); no flow during several periods since establishment of station.

ICE.—Channel reported dry during winter.

DIVERSIONS.—Station is below all diversions of Big Wood Canal Co. North Gooding and Richfield Canals divert between station and Magic Dam. Lincoln Canal (designed to carry about 700 second-feet), construction of which was completed in spring of 1925, heads 7 miles below Magic Dam and enters North Gooding Canal a quarter of a mile above station. It diverts water on right bank of Big Wood River for the purpose of conserving loss in the natural channel throughout this stretch of river.

REGULATION.—Flow past station is regulated by gates at Magic Dam and head gates of the North Gooding and Richfield Canals.

ACCURACY.—Stage-discharge relation changed April 24 and May 9–16. Rating curve well defined below 1,200 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method except for November 16, 18, April 1, 21, 24–26, July 2, 3, for which daily discharge was determined by averaging results obtained by applying to rating table mean gage heights for hourly or other regular intervals. Records good.

COOPERATION.—Gage-height record and four discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

*Discharge measurements of Big Wood River below North Gooding Canal near Shoshone, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 23 | 3.77 | 297 | May 20 | 2.97 | 171 | June 11 | 3.22 | 208 |
| May 5 | 2.66 | 138 | June 11 | 3.22 | 207 | June 28 | 2.98 | 175 |

*Daily discharge, in second-feet, of Big Wood River below North Gooding Canal near Shoshone, Idaho, for the year ending September 30, 1926*

| Day | Nov. | Apr. | May | June | July | Day | Nov. | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 13 | 258 | 181 | 189 | 16 | 156 | | 153 | 196 | |
| 2 | | 0 | 258 | 192 | 33 | 17 | 258 | | 149 | 193 | |
| 3 | | 0 | 245 | 193 | 1.5 | 18 | 50 | 0 | 159 | 193 | |
| 4 | | 0 | 250 | 195 | | 19 | | | 179 | 192 | |
| 5 | | 0 | 161 | 203 | | 20 | | | 175 | 188 | |
| 6 | | 0 | 203 | 197 | | 21 | | 53 | 175 | 200 | |
| 7 | | 0 | 190 | 199 | | 22 | | 258 | 186 | 200 | |
| 8 | | 0 | 188 | 204 | | 23 | | 294 | 195 | 192 | |
| 9 | | 0 | 189 | 202 | | 24 | | 30 | 192 | 190 | |
| 10 | | | 183 | 208 | | 25 | | 0 | 179 | 200 | |
| 11 | | | 174 | 208 | | 26 | | 52 | 172 | 204 | |
| 12 | | 0 | 129 | 208 | | 27 | | 285 | 171 | 190 | |
| 13 | | | 136 | 203 | | 28 | | 276 | 171 | 185 | |
| 14 | | | 133 | 199 | | 29 | | 267 | 172 | 195 | |
| 15 | | | 143 | 203 | | 30 | | 267 | 171 | 188 | |
| | | | | | | 31 | | | 170 | | |

NOTE.—Channel reported dry during periods for which no discharge is given. Discharge estimated Apr. 10–20.

*Monthly discharge of Big Wood River below North Gooding Canal near Shoshone, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| November 16–18 | 258 | 50 | 155 | 922 |
| April | 294 | 0 | 59.8 | 3,560 |
| May | 258 | 129 | 181 | 11,100 |
| June | 208 | 181 | 197 | 11,700 |
| July 1–3 | 189 | 1.5 | 74.5 | 443 |

### BIG WOOD RIVER ABOVE THORN CREEK, NEAR GOODING, IDAHO

LOCATION.—In NW. ¼ sec. 7, T. 5 S., R. 16 E., at Manuel Silva ranch, a quarter of a mile above Thorn Creek and 8½ miles northeast of Gooding, Gooding County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 22 to September 30, 1926.

GAGE.—Gurley water-stage recorder on right bank; inspected by James Devaney.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of lava overlain with gravel. Control formed by lava rock and gravel riffle; not permanent. One channel at all stages. Point of zero flow as determined April 24, 1926, gage height, 0.90 foot ±0.10 foot.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period of record, from water-stage recorder, 2.77 feet at 2 p. m. April 23 (discharge, 156 second-feet); no flow prior to April 23 and after July 3.

DIVERSIONS.—Numerous diversions for irrigation above and below station.

REGULATION.—Flow regulated by operation of head gates at Magic Dam and by diversions above gage.

ACCURACY.—Stage-discharge relation changed slightly after May 28. Rating curve well defined between 50 and 160 second-feet and extended above and below these limits. Operation of water-stage recorder satisfactory except for short period. Daily discharge ascertained April 22 to May 28 by applying to rating table mean daily gage height determined by inspection of recorder graph, and by shifting-control method May 29 to July 4, except as indicated in footnote to table of daily discharge. Records good.

COOPERATION.—Gage-height record and several discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

*Discharge measurements of Big Wood River above Thorn Creek, near Gooding, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 24 | 2.70 | 141 | May 3 | 2.57 | 115 | May 21 | 2.24 | 58 |
| Apr. 29 | 2.62 | 124 | May 7 | 2.39 | 80 | June 30 | 2.35 | 66 |

*Daily discharge, in second-feet, of Big Wood River above Thorn Creek, near Gooding, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Day | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | 124 | 61 | 71 | 16 | | 41 | 84 | |
| 2 | | 118 | 71 | 49 | 17 | | 43 | 74 | |
| 3 | | 112 | 77 | 10 | 18 | | 43 | 69 | |
| 4 | | 110 | 76 | 0 | 19 | | 53 | 74 | |
| 5 | | 100 | 80 | | 20 | | 63 | 74 | |
| 6 | | 60 | 84 | | 21 | | 58 | 76 | |
| 7 | | 84 | 80 | | 22 | 0 | 61 | 79 | |
| 8 | | 71 | 84 | | 23 | 72 | 71 | 77 | |
| 9 | | 72 | 86 | | 24 | 95 | 76 | 66 | |
| 10 | | 76 | 86 | | 25 | 10 | 76 | 69 | |
| 11 | | 69 | 89 | | 26 | 2 | 66 | 71 | |
| 12 | | 61 | 87 | | 27 | 10 | 62 | 75 | |
| 13 | | 30 | 87 | | 28 | 40 | 61 | 61 | |
| 14 | | 39 | 80 | | 29 | 124 | 60 | 66 | |
| 15 | | 38 | 84 | | 30 | 116 | 60 | 71 | |
| | | | | | 31 | | 61 | | |

NOTE.—Discharge estimated Apr. 27–28, May 5, 13, June 27, and July 3, based largely on flow of Big Wood River at Gooding. Discharge for Apr. 23 is mean of hourly discharges. No flow on days for which no record is shown.

*Monthly discharge of Big Wood River above Thorn Creek, near Gooding, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April 22–30 | 124 | 0 | 52.1 | 930 |
| May | 124 | 30 | 68.4 | 4,210 |
| June | 89 | 61 | 76.6 | 4,560 |
| July 1–4 | 71 | 0 | 32.5 | 258 |
| The period | | | | 9,960 |

### BIG WOOD RIVER AT GOODING, IDAHO

LOCATION.—In sec. 29, T. 5 S., R. 15 E., Gooding County, 30 feet below highway bridge and half a mile north of Gooding station on Oregon Short Line Railroad.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 1, 1921, to September 30, 1926. From June 2, 1896, to October 31, 1899, at approximately same site but known as "Malade River at Toponis, Idaho."

GAGE.—Gurley water-stage recorder on left bank; inspected by James Devaney.

DISCHARGE MEASUREMENTS.—Made from cable 600 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock overlain with gravel. Control formed by lava-rock riffle 300 feet below gage; growth of willows and weeds affects stage-discharge relation occasionally. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 2.07 feet from 8 a. m. till noon April 24 (discharge, 120 second-feet); no flow April 26, 27, for few hours on April 28 and May 16, after July 3, and for long periods prior to April 24.

1921–1926: Maximum stage recorded, 5.80 feet May 7, 1922 (discharge, 2,340 second-feet); channel dry for long periods each year.

ICE.—Channel generally dry during winter.

DIVERSIONS.—Numerous diversions for irrigation above and below station.

REGULATION.—Flow regulated by operation of head gates at Magic Dam and by diversions above gage.

ACCURACY.—Stage-discharge relation changed slightly at times during period of record. Rating curves well defined. Operation of water-stage recorder satisfactory except May 9–14, during which staff gage was read once daily to hundredths. Daily discharge ascertained by shifting-control method and for days of considerable fluctuation of stage by averaging discharges for intervals of a day, except as indicated in footnote to table of daily discharge. During period water-stage recorder was operated, mean daily gage height determined by inspection of recorder graph. Records good.

COOPERATION.—Gage-height record and three discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

*Discharge measurements of Big Wood River at Gooding, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 29 | 1.91 | 81 | June 19 | 1.78 | 53.1 |
| May 4 | 1.82 | 67 | June 30 | 1.72 | 43.9 |
| June 16 | 1.80 | 53.5 | | | |

*Daily discharge, in second-feet, of Big Wood River at Gooding, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Day | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | 87 | 25 | 41 | 16 | | 1 | 56 | |
| 2 | | 78 | 38 | 42 | 17 | | 9 | 50 | |
| 3 | | 74 | 48 | 7 | 18 | | 10 | 45 | |
| 4 | | 63 | 51 | 0 | 19 | | 13 | 53 | |
| 5 | | 65 | 50 | | 20 | | 32 | 55 | |
| 6 | | 12 | 56 | | 21 | | 25 | 53 | |
| 7 | | 47 | 51 | | 22 | | 25 | 58 | |
| 8 | | 50 | 51 | | 23 | | 31 | 53 | |
| 9 | | 50 | 56 | | 24 | 60 | 35 | 41 | |
| 10 | | 48 | 51 | | 25 | 6 | 36 | 41 | |
| 11 | | 53 | 61 | | 26 | 0 | 27 | 45 | |
| 12 | | 50 | 59 | | 27 | 0 | 20 | 48 | |
| 13 | | 7 | 61 | | 28 | 19 | 18 | 37 | |
| 14 | | 13 | 55 | | 29 | 87 | 20 | 33 | |
| 15 | | 2 | 55 | | 30 | 78 | 21 | 44 | |
| | | | | | 31 | | 22 | | |

*Monthly discharge of Big Wood River at Gooding, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April 24–30 | 87 | 0 | 35.7 | 496 |
| May | 87 | 1 | 33.7 | 2,070 |
| June | 61 | 25 | 49.3 | 2,930 |
| July 1–4 | 42 | 0 | 22.5 | 179 |
| The period | | | | 5,680 |

**BIG WOOD RIVER NEAR GOODING, IDAHO**

LOCATION.—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, Gooding County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 26, 1916, to September 30, 1926.

GAGE.—Gurley 7-day water-stage recorder on right bank; inspected by R. Ambrose and F. D. Wright.

DISCHARGE MEASUREMENTS.—Made from cable a short distance above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock, boulders, and coarse gravel. Banks are overflowed at high stages; one channel at gage; several channels above gage during high water. Control practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.68 feet October 19 (discharge, 77 second-feet); no flow April 7, 14–23, 26–28, May 16–18, July 4 to September 30, and most of the time prior to April 1.

1916–1926: Maximum stage recorded, 9.00 feet March 17, 1922 (discharge, 3,680 second-feet); channel dry for long periods each year.

ICE.—Stage-discharge relation affected by ice at times; record discontinued during winter.

DIVERSIONS.—Below all diversions of North Side Canal Co. (Ltd.), and above Big Malad Springs. Justice and Croco ditches (combined capacity, about 15 second-feet) divert 3 miles below gage; a few second-feet are occasionally wasted into river 2 miles below gage.

REGULATION.—Flow regulated by dams and diversions above station.

ACCURACY.—Stage-discharge relation changed slightly during winter. Rating curve well defined below 1,800 second-feet. Operation of water-stage recorder fairly satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph, except as indicated in footnote to table of daily discharge, and except for days of considerable diurnal fluctuation during which daily discharge was ascertained by averaging discharges obtained by applying to rating table mean gage height for hourly or other regular intervals as determined by inspection of recorder graph. Records fair.

COOPERATION.—Gage-height record and two discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

*Discharge measurements of Big Wood River near Gooding, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 19 | 1.68 | 77 | June 16 | 1.19 | 24.5 |
| May 4 | 1.03 | 16.3 | June 19 | 1.05 | 17.6 |

*Daily discharge, in second-feet, of Big Wood River near Gooding, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Apr. | May | June | July | Day | Oct. | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 1 | 24 | 1 | 10 | 16 | | 0 | 0 | 25 | |
| 2 | | 3 | 30 | 5 | 14 | 17 | | 0 | 0 | 14 | |
| 3 | | 14 | 29 | 23 | 8 | 18 | | 0 | 0 | 6 | |
| 4 | | 5 | 17 | 29 | | 19 | 77 | 0 | 2 | 17 | |
| 5 | | 2 | 30 | 24 | | 20 | | 0 | 13 | 21 | |
| 6 | | 4 | 19 | 21 | | 21 | | 0 | 17 | 20 | |
| 7 | | 0 | 9 | 12 | | 22 | | 0 | 11 | 17 | |
| 8 | | 13 | 15 | 9 | | 23 | | 0 | 12 | 14 | |
| 9 | | 17 | 11 | 13 | | 24 | | 30 | 13 | 7 | |
| 10 | | 16 | 13 | 15 | | 25 | | 15 | 20 | 14 | |
| 11 | | 20 | 16 | 13 | | 26 | | 0 | 17 | 11 | |
| 12 | | 17 | 11 | 19 | | 27 | | 0 | 11 | 15 | |
| 13 | | 7 | 5 | 24 | | 28 | | 0 | 8 | 12 | |
| 14 | | 0 | 3 | 19 | | 29 | | 21 | 4 | 5 | |
| 15 | | 0 | 2 | 17 | | 30 | | 19 | 2 | 5 | |
| | | | | | | 31 | | | 1 | | |

NOTE.—Discharge estimated Apr. 24, May 14, 15, and July 3, based on gage heights and observer's notes.

*Monthly discharge of Big Wood River near Gooding, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April | | 0 | 6.8 | 400 |
| May | 30 | 0 | 11.8 | 726 |
| June | 29 | 1 | 14.9 | 887 |
| July 1-3 | 14 | | 10.7 | 63.7 |
| The period | | | | 2,080 |

### BIG WOOD SLOUGH AT HAILEY, IDAHO

LOCATION.—In sec. 9, T. 2 N., R. 18 E., at highway bridge, one-eighth mile northeast of steel highway bridge across Big Wood River, and one-eighth mile southwest of Hailey, Blaine County.

RECORDS AVAILABLE.—June 11, 1915, to September 30, 1916.

GAGE.—Vertical staff in concrete stilling well on left bank 3 feet below highway bridge; installed August 3, 1923; read by R. F. Bowman.

DISCHARGE MEASUREMENTS.—Made from footbridge or by wading.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. Banks covered with brush and may be overflowed. One channel at all stages. Control formed by a woodstave water pipe, laid in bed of stream about 15 feet below gage; changes slightly.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.88 feet at 5 p. m. November 9 (discharge, 251 second-feet); minimum discharge, 12 second-feet June 23, 24, and 27.

1915–1926: Maximum stage recorded, 3.00 feet June 6, 1921 (discharge, 419 second-feet); minimum discharge, 0.9 second-foot March 21–24, 1919.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—None.

REGULATION.—The amount of water passing gage is affected by load at power plant half a mile upstream, and there is considerable fluctuation. The main river station is affected inversely by any such regulation, so that the accuracy of the summation of the two records is presumably affected only slightly by this factor.

ACCURACY.—Stage-discharge relation changed frequently during year by accumulation on and removal of drift from control. Rating curve fairly well-defined. Gage read to hundredths once daily except April 27 to September 25 during which it was read twice daily. Daily discharge ascertained by shifting-control method. Records from April to September, good; others fair.

COOPERATION.—Four discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Big Wood Slough is a natural channel of Big Wood River that is utilized also as a tailrace for the Hailey power plant. The record from this station represents a portion of the natural flow of Big Wood River and taken in conjunction with the record at the near-by station on the main river, will show the entire flow of the river at this point. For record from station on the main river see page 116. For record of combined flow of Big Wood River and Big Wood Slough see page 118.

*Discharge measurements of Big Wood Slough at Hailey, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 15 | 1.69 | 165 | June 7 | 0.98 | 19.6 | July 13 | 1.60 | 143 |
| Mar. 27 | 1.64 | 130 | June 24 | .94 | 13.0 | Aug. 3 | 1.42 | 101 |
| May 7 | 1.32 | 57 | June 29 | 1.46 | 114 | Sept. 11 | 1.45 | 101 |
| May 10 | 1.06 | 25.4 | July 11 | 1.58 | 144 | | | |

*Daily discharge, in second-feet, of Big Wood Slough at Hailey, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 129 | 129 | 207 | 144 | 140 | 152 | 159 | 73 | 21 | 126 | 94 | 103 |
| 2 | 129 | 110 | 217 | 152 | 140 | 152 | 148 | 75 | 21 | 106 | 97 | 103 |
| 3 | 129 | 97 | 207 | 152 | 140 | 152 | 119 | 68 | 19 | 106 | 100 | 116 |
| 4 | 129 | 168 | 198 | 152 | 140 | 155 | 119 | 70 | 21 | 129 | 97 | 116 |
| 5 | 129 | 168 | 189 | 152 | 133 | 152 | 126 | 97 | 20 | 137 | 94 | 110 |
| 6 | 193 | 193 | 189 | 152 | 133 | 152 | 148 | 75 | 21 | 155 | 94 | 106 |
| 7 | 176 | 222 | 189 | 152 | 140 | 152 | 119 | 61 | 20 | 152 | 94 | 106 |
| 8 | 159 | 241 | 189 | 152 | 148 | 152 | 152 | 33 | 20 | 163 | 152 | 106 |
| 9 | 159 | 222 | 189 | 159 | 148 | 168 | 159 | 30 | 19 | 155 | 155 | 103 |
| 10 | 152 | 241 | 180 | 159 | 148 | 185 | 31 | 26 | 21 | 148 | 140 | 103 |
| 11 | 159 | 212 | 180 | 159 | 140 | 176 | 33 | 19 | 18 | 144 | 140 | 100 |
| 12 | 159 | 202 | 180 | 159 | 140 | 185 | 35 | 18 | 21 | 140 | 126 | 100 |
| 13 | 159 | 185 | 163 | 152 | 140 | 193 | 45 | 15 | 24 | 137 | 122 | 97 |
| 14 | 159 | 176 | 155 | 152 | 140 | 129 | 63 | 16 | 23 | 126 | 119 | 97 |
| 15 | 159 | 168 | 148 | 152 | 148 | 110 | 17 | 17 | 24 | 122 | 110 | 106 |
| 16 | 159 | 212 | 148 | 152 | 148 | 144 | 22 | 22 | 24 | 122 | 113 | 103 |
| 17 | 152 | 193 | 155 | 152 | 148 | 152 | 32 | 23 | 23 | 126 | 110 | 106 |
| 18 | 152 | 176 | 163 | 152 | 148 | 144 | 34 | 25 | 20 | 119 | 106 | 103 |
| 19 | 144 | 168 | 163 | 152 | 148 | 137 | 39 | 27 | 20 | 119 | 129 | 103 |
| 20 | 144 | 159 | 163 | 152 | 148 | 137 | 35 | 44 | 17 | 133 | 126 | 103 |
| 21 | 144 | 152 | 163 | 152 | 140 | 144 | 35 | 40 | 15 | 119 | 119 | 103 |
| 22 | 144 | 159 | 163 | 152 | 133 | 152 | 30 | 31 | 13 | 119 | 122 | 103 |
| 23 | 144 | 168 | 155 | 152 | 133 | 168 | 27 | 27 | 12 | 110 | 110 | 103 |
| 24 | 144 | 176 | 155 | 144 | 140 | 168 | 24 | 27 | 12 | 110 | 100 | 116 |
| 25 | 137 | 176 | 155 | 144 | 140 | 152 | 27 | 22 | 13 | 103 | 94 | 116 |
| 26 | 129 | 185 | 155 | 152 | 148 | 137 | 37 | 21 | 13 | 97 | 97 | 113 |
| 27 | 129 | 193 | 140 | 152 | 148 | 129 | 44 | 20 | 12 | 103 | 113 | 113 |
| 28 | 129 | 193 | 140 | 144 | 155 | 140 | 53 | 21 | 91 | 103 | 94 | 113 |
| 29 | 129 | 193 | 140 | 144 | ------- | 193 | 61 | 22 | 129 | 100 | 94 | 119 |
| 30 | 129 | 193 | 140 | 144 | ------- | 116 | 81 | 23 | 126 | 94 | 94 | 126 |
| 31 | 129 | ------- | 148 | 144 | ------- | 137 | ------- | 19 | ------- | 94 | 100 | ------ |

*Monthly discharge of Big Wood Slough at Hailey, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 193 | 129 | 146 | 8,980 |
| November | 241 | 97 | 181 | 10,800 |
| December | 217 | 140 | 169 | 10,400 |
| January | 159 | 144 | 151 | 9,280 |
| February | 155 | 133 | 143 | 7,940 |
| March | 193 | 110 | 152 | 9,350 |
| April | 159 | 17 | 68.5 | 4,080 |
| May | 97 | 15 | 35.7 | 2,200 |
| June | 129 | 12 | 28.4 | 1,690 |
| July | 163 | 94 | 123 | 7,560 |
| August | 155 | 94 | 111 | 6,820 |
| September | 126 | 97 | 107 | 6,370 |
| The year | 241 | 12 | 118 | 85,500 |

### CAMAS CREEK NEAR BLAINE, IDAHO

LOCATION.—In sec. 15, T. 1 S., R. 16 E., 500 feet below sheep bridge, 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, Camas County. No tributaries or diversions between station and Magic Reservoir.

DRAINAGE AREA.—618 square miles (measured on base map of Idaho).

RECORDS AVAILABLE.—May 9, 1912, to September 30, 1926. Results of discharge measurements made in 1911 by Idaho Irrigation Co. are also available. Discharge measurements only are available for 1922.

GAGE.—Gurley water-stage recorder on left bank; inspected by deputy water masters.

DISCHARGE MEASUREMENTS.—Made from sheep bridge or by wading.

CHANNEL AND CONTROL.—Bed is rocky. One channel at all stages. Control fairly permanent. Point of zero flow determined July 11, 1926, gage height 0.60 foot ± 0.05 foot.

EXTREMES OF DISCHARGE.—Maximum stage recorded, from water-stage recorder 4.03 feet at 11.40 a. m. March 27 (discharge, 530 second-feet); minimum stage, 0.95 foot July 29 (discharge, 1.8 second-feet). A higher discharge probably occurred during period of no record.

1911–1926: Maximum discharge, 5,240 second-feet April 12, 1916 (gage height, 10.76 feet); minimum discharge, that of July 29, 1926. Probably not actual extremes.

ICE.—Observations discontinued during winter.

DIVERSIONS.—Many small diversions are made above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent during year. Rating curve well defined between 0 and 600 second-feet, above which it is an extension based on inflow and outflow records for Magic Reservoir. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph except as indicated in footnote to table of daily discharge. Record excellent.

COOPERATION.—Gage-height record and three discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

*Discharge measurements of Camas Creek near Blaine, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 16 | 1.42 | 15.9 | Apr. 27 | 2.37 | 110 | June 7 | 1.15 | 6.8 |
| Mar. 27 | 4.02 | 514 | May 8 | 1.98 | 59 | July 11 | 1.04 | 3.7 |
| Apr. 20 | 2.80 | 201 | June 1 | 1.22 | 8.7 | | | |

*Daily discharge, in second-feet, of Camas Creek near Blaine, Idaho, for the year ending September 30, 1926*

| Day | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 1 | | 194 | 87 | 8.5 | 3.4 | 2.0 | 2.3 |
| 2 | | 192 | 74 | 7.9 | 3.4 | 2.0 | 2.3 |
| 3 | | 178 | 71 | 7.3 | 3.1 | 2.0 | 2.3 |
| 4 | | 169 | 63 | 7.0 | 3.1 | 2.0 | 2.4 |
| 5 | | 194 | 58 | 6.4 | 3.1 | 2.0 | 2.4 |
| 6 | | 218 | 58 | 6.4 | 2.9 | 2.0 | 2.6 |
| 7 | | 242 | 60 | 6.4 | 2.9 | 2.1 | 2.6 |
| 8 | | 284 | 61 | 6.4 | 4.2 | 2.1 | 2.6 |
| 9 | | 290 | 59 | 6.1 | 4.2 | 2.1 | 2.6 |
| 10 | | 300 | 53 | 6.1 | 4.4 | 2.1 | 2.6 |
| 11 | | 272 | 49 | 6.1 | 3.9 | 2.1 | 2.6 |
| 12 | | 252 | 47 | 6.1 | 3.6 | 2.1 | 2.6 |
| 13 | | 242 | 44 | 5.8 | 3.1 | 2.1 | 2.6 |
| 14 | | 240 | 38 | 4.9 | 2.9 | 2.3 | 2.6 |
| 15 | | 247 | 33 | 4.9 | 2.6 | 2.1 | 2.6 |

*Daily discharge, in second-feet, of Camas Creek near Blaine, Idaho, for the year ending September 30, 1926*—Continued

| Day | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 16 | | 247 | 29 | 4.7 | 2.6 | 2.1 | 2.6 |
| 17 | | 225 | 26 | 4.9 | 2.4 | 2.1 | 2.9 |
| 18 | | 218 | 24 | 4.9 | 2.4 | 2.3 | 2.9 |
| 19 | | 209 | 22 | 5.2 | 2.4 | 2.3 | 2.9 |
| 20 | | 199 | 21 | 5.5 | 2.4 | 2.1 | 2.9 |
| 21 | | 194 | 19 | 5.6 | 2.4 | 2.1 | 3.1 |
| 22 | | 181 | 17 | 5.8 | 2.3 | 2.3 | 3.1 |
| 23 | | 158 | 16 | 5.2 | 2.3 | 2.3 | 2.9 |
| 24 | | 146 | 16 | 4.9 | 2.3 | 2.3 | 2.9 |
| 25 | | 132 | 16 | 4.9 | 2.3 | 2.3 | 2.9 |
| 26 | | 121 | 16 | 4.4 | 2.1 | 2.3 | 3.1 |
| 27 | 500 | 113 | 16 | 4.4 | 2.1 | 2.1 | 3.1 |
| 28 | 375 | 99 | 13 | 3.9 | 2.0 | 2.3 | 3.1 |
| 29 | 270 | 98 | 11 | 3.4 | 1.8 | 2.1 | 3.4 |
| 30 | 211 | 93 | 10 | 3.4 | 2.0 | 2.1 | 3.4 |
| 31 | 197 | | 10 | | 2.0 | 2.3 | |

NOTE.—Discharge estimated May 18, 31, Sept. 29, 30; interpolated June 21 and 28. No record Oct. 1 to Mar. 26 except Oct. 16 when discharge was 16 second-feet.

*Monthly discharge of Camas Creek near Blaine, Idaho, for the year ending September 30, 1926*

[Drainage area, 618 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| March 27–31 | 500 | 197 | 311 | 0.503 | 0.09 | 3,080 |
| April | 300 | 93 | 198 | .320 | .36 | 11,800 |
| May | 87 | 10 | 36.7 | .059 | .07 | 2,260 |
| June | 8.5 | 3.4 | 5.58 | .0090 | .01 | 332 |
| July | 4.4 | 1.8 | 2.79 | .0045 | .005 | 172 |
| August | 2.3 | 2.0 | 2.15 | .0035 | .004 | 132 |
| September | | 2.3 | 2.76 | .0045 | .005 | 164 |
| The period | | | | | | 17,900 |

### LINCOLN CANAL NEAR RICHFIELD, IDAHO

LOCATION.—In sec. 9, T. 3 S., R. 18 E., at head of canal, 100 yards east from Shoshone-Hailey highway, 5½ miles below Magic Dam, and 12 miles northeast of Richfield, Lincoln County.

RECORDS AVAILABLE.—April 15, 1925, to September 30, 1926.

GAGE.—Gurley 7-day water-stage recorder on right bank 400 feet below head gates; inspected by S. H. Chapman and James Devaney.

DISCHARGE MEASUREMENTS.—Made from cable 400 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of lava covered by gravel. One channel at all stages. Control not definitely defined.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 3.62 feet at 3 p. m. July 1 (discharge, 574 second-feet); probably no flow for several periods during year.

1925–26: Maximum discharge, 574 second-feet, August 4, 1925, and July 1, 1926; no flow for long periods each year.

ICE.—No flow during winter.

REGULATION.—Flow regulated by gates at head of canal.

ACCURACY.—Stage-discharge relation changed during winter. Two fairly well defined rating curves used during year, one applicable November 16–19 and the other after March 30. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height or, for days of considerable fluctuation of stage, by averaging results obtained by applying to rating table mean gage height for shorter intervals as determined by inspection of recorder graph. Records good.

COOPERATION.—Gage-height record and several discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

Lincoln Canal diverts water from right bank of Big Wood River in sec. 9, T. 3 S., R. 18 E., from which point water is carried 10 miles approximately paralleling the river to head of North Gooding Canal in sec. 15, T. 4 S., R. 18 E. Construction of Lincoln Canal was completed in spring of 1925 and used thereafter for conserving large channel losses in the natural stream bed of this stretch of river during irrigation seasons.

*Discharge measurements of Lincoln Canal near Richfield, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 23 | 3.06 | 450 | May 5 | 3.00 | 430 | June 28 | 3.40 | 532 |
| May 1 | 3.34 | 504 | May 20 | 3.13 | 450 | | | |
| May 2 | 3.34 | 510 | June 11 | 3.20 | 488 | | | |

*Daily discharge, in second-feet, of Lincoln Canal near Richfield, Idaho, for the year ending September 30, 1926*

| Day | Nov. | Apr. | May | June | July | Aug. | Day | Nov. | Apr. | May | June | July | Aug. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 510 | 481 | 512 | | 16 | 363 | | 420 | 470 | | 241 |
| 2 | | | 521 | 483 | 34 | | 17 | 382 | | 422 | 465 | 0 | 233 |
| 3 | | | 510 | 483 | | | 18 | 136 | 0 | 448 | 465 | 36 | 10 |
| 4 | | | 505 | 485 | | | 19 | 5.0 | | 470 | 463 | 274 | |
| 5 | | | 443 | 485 | | | 20 | | | 463 | 463 | 255 | |
| 6 | | | 474 | 481 | | | 21 | | 173 | 470 | 489 | | |
| 7 | | | 454 | 481 | | | 22 | | 417 | 476 | 508 | | |
| 8 | | 0 | 452 | 485 | | 0 | 23 | | 408 | 485 | 505 | | |
| 9 | | | 452 | 485 | 0 | | 24 | | 0 | 481 | 514 | | |
| 10 | | | 443 | 489 | | | 25 | | 0 | 470 | 526 | | |
| 11 | | | 430 | 483 | | | 26 | | 124 | 467 | 540 | 0 | |
| 12 | | | 394 | 481 | | | 27 | | 432 | 465 | 535 | | |
| 13 | | | 396 | 470 | | | 28 | | 443 | 465 | 535 | | |
| 14 | | | 398 | 472 | | | 29 | | 470 | 467 | 551 | | |
| 15 | | | 413 | 474 | | 51 | 30 | | 498 | 467 | 551 | | |
| | | | | | | | 31 | | | 475 | | | |

NOTE.—Discharge estimated Mar. 31 and May 31. Canal reported dry except during periods flow is recorded.

*Monthly discharge of Lincoln Canal near Richfield, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| November 16–19 | 382 | 5.0 | 222 | 1,760 |
| March 31 | 8 | 8 | 8 | 16 |
| April | 498 | 0 | 98.8 | 5,880 |
| May | 521 | 394 | 458 | 28,200 |
| June | 551 | 463 | 493 | 29,300 |
| July | 512 | 0 | 35.8 | 2,200 |
| August 1–18 | 241 | 0 | 29.7 | 1,060 |

### LINCOLN CANAL NEAR SHOSHONE, IDAHO

LOCATION.—In sec. 15, T. 4 S., R. 18 E., one-fourth mile above mouth of canal, 7 miles northwest of Richfield, 11 miles northeast of Shoshone, Lincoln County and 12½ miles below Magic Dam.

RECORDS AVAILABLE.—May 21, 1925, to September 30, 1926.

GAGE.—Vertical staff bolted to left end of concrete check of canal in timber stilling well; read by J. H. Gilmore and W. E. Bolton.

DISCHARGE MEASUREMENTS.—Made from cable half a mile above gage or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Bed composed of lava rock overlain with gravel. Control is concrete check.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 2.22 feet at 7.30 a. m. July 1 (discharge, 552 second-feet); canal dry except during periods of recorded flow.

ICE.—No flow during winter.

REGULATION.—Flow regulated by gates at head of canal.

ACCURACY.—Stage-discharge relation unchanged during period of record. Rating curve fairly well defined throughout. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

COOPERATION.—Station maintained in cooperation with water master for Big Wood and Little Wood Rivers.

Lincoln Canal diverts water from right bank of Big Wood River in sec. 9, T. 3 S., R. 18 E., from which point water is carried 10 miles, approximately paralleling the river, to head of North Gooding Canal in sec. 15, T. 4 S., R. 18 E. Construction of Lincoln Canal was completed in spring of 1925 and used thereafter for the purpose of conserving large channel losses in the natural stream bed of this stretch of river during irrigation seasons.

*Discharge measurements of Lincoln Canal near Shoshone, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 23 | 1.91 | 429 | May 1 | 2.08 | 477 | June 11 | 1.98 | 459 |
| May 1 | 2.08 | 495 | May 20 | 1.95 | 437 | June 28 | 2.08 | 488 |

*Daily discharge, in second-feet, of Lincoln Canal near Shoshone, Idaho, for the year ending September 30, 1926*

| Day | Nov. | Apr. | May | June | July | Aug. | Day | Nov. | Apr. | May | June | July | Aug. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | ------ | 482 | 448 | 526 | ------ | 16 | 265 | ------ | 390 | 439 | ------ | 180 |
| 2 | ------ | ------ | 499 | 465 | 43 | ------ | 17 | 330 | ------ | 390 | 427 | ------ | 210 |
| 3 | ------ | ------ | 482 | 465 | ------ | ------ | 18 | 137 | ------ | 423 | 431 | ------ | 25 |
| 4 | ------ | ------ | 478 | 456 | ------ | ------ | 19 | 13 | ------ | 444 | 431 | 182 | ------ |
| 5 | ------ | ------ | 392 | 465 | ------ | ------ | 20 | ------ | ------ | 435 | 431 | 272 | ------ |
| 6 | ------ | ------ | 461 | 456 | ------ | ------ | 21 | ------ | 96 | 439 | 456 | 5 | ------ |
| 7 | ------ | ------ | 431 | 456 | ------ | ------ | 22 | ------ | 370 | 456 | 482 | ------ | ------ |
| 8 | ------ | ------ | 431 | 456 | ------ | ------ | 23 | ------ | 418 | 465 | 474 | ------ | ------ |
| 9 | ------ | ------ | 431 | 461 | ------ | ------ | 24 | ------ | 73 | 461 | 482 | ------ | ------ |
| 10 | ------ | ------ | 423 | 461 | ------ | ------ | 25 | ------ | 0 | 448 | 499 | ------ | ------ |
| 11 | ------ | ------ | 423 | 456 | ------ | ------ | 26 | ------ | 45 | 439 | 517 | ------ | ------ |
| 12 | ------ | ------ | 366 | 452 | ------ | ------ | 27 | ------ | 398 | 439 | 517 | ------ | ------ |
| 13 | ------ | ------ | 370 | 439 | ------ | ------ | 28 | ------ | 410 | 439 | 499 | ------ | ------ |
| 14 | ------ | ------ | 370 | 435 | ------ | ------ | 29 | ------ | 435 | 439 | 530 | ------ | ------ |
| 15 | ------ | ------ | 382 | 435 | ------ | ------ | 30 | ------ | 482 | 439 | 526 | ------ | ------ |
| | | | | | | | 31 | ------ | ------ | 435 | ------ | ------ | ------ |

NOTE.—Discharge estimated in part Nov. 16, 17, 19, Apr. 21, 24, 26, May 5, July 19, 21, and Aug. 16–18' based on gage heights and known changes in flow as furnished by water master. Canal reported dry during periods for which discharge is not given.

*Monthly discharge of Lincoln Canal near Shoshone, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April | 482 | 0 | 90.9 | 5,410 |
| May | 499 | 366 | 432 | 26,600 |
| June | 530 | 427 | 465 | 27,700 |
| July | 526 | 0 | 33.2 | 2,040 |
| August | 210 | 0 | 13.4 | 824 |
| The year | 530 | 0 | 88.4 | 64,100 |

### LITTLE WOOD RIVER NEAR CAREY, IDAHO

LOCATION.—In SW. ¼ NW. ¼ sec. 35, T. 2 N., R. 20 E., at Campbell ranch, three-fourths mile below dam site of proposed Little Wood Reservoir; on Carey-Muldoon road; 1½ miles below mouth of High Five Creek, 2½ miles below mouth of Muldoon Creek, 11 miles due east of Bellevue, and 15 miles northwest of Carey, Blaine County.

DRAINAGE AREA.—267 square miles revised (measured on United States Forest Service maps).

RECORDS AVAILABLE.—February 22, 1920, to September 30, 1926. April 28, 1904, to May 31, 1905, at station 7 miles downstream.

GAGE.—Friez water-stage recorder on left bank; inspected by employees at Campbell ranch. On September 20, 1926, Friez recorder removed to new site 7 miles downstream.

DISCHARGE MEASUREMENTS.—Made from cable 100 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel. One channel at all stages. Control formed by well-defined gravel and boulder riffle about 25 feet below gage; subject to change.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 2.34 feet 6 to 8 a. m. April 19 (discharge, 365 second-feet); minimum discharge (estimated), 15 second-feet July 29–31, August 1–7, and and 25–31. Lower discharge may have occurred during periods of missing gage-height record.

1920–1926: Maximum discharge recorded, 1,030 second-feet June 12, 1921, and May 26, 1922; minimum stage recorded, 0.48 foot from 11 p. m. August 29 to 2 a. m. August 30 (discharge, 14 second-feet).

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—Practically no diversions above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent; affected by ice December 28–31, January 1–8, and 13–31. Rating curves well defined below 200 second-feet, above which they are fairly well defined. Staff gage read to hundredths two to four times a week December 24 to March 17; gage-height record from water-stage recorder for remainder of year. Gage-height record poor owing to lack of attendant. Daily discharge ascertained by applying daily or mean daily gage height to rating table except as indicated in footnote to table of daily discharge. During periods water-stage recorder was operated mean daily gage height determined by inspection of recorder graph. Records fair.

COOPERATION.—Gage-height record furnished by Campbell Bros.

*Discharge measurements of Little Wood River near Carey, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 17 | 1.22 | 81 | May 9 | [b] 1.53 | 149 | July 13 | [c] 0.85 | 33.2 |
| Mar. 29 | [a] 1.35 | 111 | June 9 | 1.21 | 86 | Sept. 13 | [d] .63 | 16.9 |

[a] 1.38 feet on outside staff gage.
[b] 1.58 feet on outside staff gage.
[c] 0.83 foot on outside staff gage.
[d] 0.61 foot on outside staff gage.

*Daily discharge, in second-feet, of Little Wood River near Carey, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 60 | 72 | | | 50 | 77 | 102 | 259 | | | | |
| 2 | 60 | 78 | | | 52 | 83 | 91 | 236 | 100 | | | |
| 3 | 59 | 78 | | | 51 | 90 | 112 | 241 | | | | |
| 4 | 57 | 69 | | | 50 | 96 | 129 | 231 | 97 | | 15 | |
| 5 | 56 | 68 | 75 | 55 | 45 | 82 | 160 | 216 | 104 | | | |
| 6 | 94 | 68 | | | 51 | 68 | 182 | 194 | 97 | 35 | | 20 |
| 7 | 90 | 69 | | | 57 | 77 | 201 | 178 | 100 | | | |
| 8 | 81 | 69 | | | 56 | 87 | 250 | 169 | 100 | | | |
| 9 | 79 | 70 | | 55 | 55 | 96 | | 151 | 88 | | | |
| 10 | 79 | 70 | | 56 | 54 | 98 | 254 | 144 | 81 | | 25 | |
| 11 | 79 | 72 | | 57 | 52 | 100 | 246 | 136 | 74 | | | |
| 12 | 94 | 70 | | [e] 62 | 50 | 128 | 249 | 127 | 72 | | | |
| 13 | 91 | 68 | | | 58 | 155 | 252 | 121 | 61 | 30 | | 17 |
| 14 | 87 | 56 | | | 65 | 166 | 257 | 123 | 60 | 28 | | |
| 15 | 86 | | | | 68 | 177 | 284 | 125 | 60 | 26 | | |
| 16 | 84 | | | | 71 | 210 | 305 | 127 | 58 | 25 | | 15 |
| 17 | 83 | 60 | 65 | | 68 | 214 | 320 | | 54 | 25 | | |
| 18 | 83 | | | | 65 | 240 | 336 | | 51 | 23 | | |
| 19 | 81 | | | 50 | 60 | | 349 | | 52 | 23 | 20 | |
| 20 | 79 | | | | 55 | 254 | 320 | | 49 | 23 | | |
| 21 | 79 | | | | 60 | 236 | 299 | 200 | 48 | | | |
| 22 | 78 | | | | 65 | 221 | 284 | | 46 | | | |
| 23 | 78 | 55 | | | 55 | 244 | 262 | | 44 | | | 20 |
| 24 | 76 | | 62 | | 45 | 194 | 252 | | 44 | 20 | | |
| 25 | 78 | | | | 48 | 170 | 234 | 119 | 43 | | | |
| 26 | 74 | | | | 52 | 257 | 112 | | | | | |
| 27 | 74 | | | | 54 | 119 | 259 | 98 | | | 15 | |
| 28 | 73 | 70 | 50 | 45 | 57 | 126 | 257 | 98 | 40 | 17 | | 25 |
| 39 | 73 | | | | ------- | 132 | 268 | 108 | | | | |
| 30 | 72 | | | | ------- | 115 | 270 | 105 | | 15 | | |
| 31 | 72 | ------- | | | ------- | 108 | ------- | | ------- | ------- | | ------ |

NOTE.—Discharge estimated because of missing gage height record or on account of ice, Nov. 15–30, Dec., 1–23, 25–31, Jan. 1–8, 10, 13–31, Feb. 1, 3, 6, 8, 10, 13, 15, 17, 19, 21, 23, 25, 27, Mar. 2, 3, 5, 7, 8, 10, 12, 14, 16, 18, 19, 25, 26, 28, Apr. 8, 9, May 15, 17–24, 30, 31, June 1–3, 26–30, July 1–12, 21–27, 29–31, Aug. 1–31, Sept. 1–12, 14–19, based on comparative flow at Hailey; discharge Sept. 20–30 based on determination of flow at new station 7 miles downstream. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Little Wood River near Carey, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 94 | 56 | 77.1 | 4,740 |
| November | ---------- | ---------- | 65.4 | 3,890 |
| December | ---------- | ---------- | 64.7 | 3,980 |
| January | ---------- | ---------- | 51.3 | 3,150 |
| February | 71 | 45 | 56.0 | 3,110 |
| March | 254 | 68 | 148 | 9,100 |
| April | 349 | 91 | 243 | 14,500 |
| May | 259 | 98 | 165 | 10,100 |
| June | ---------- | ---------- | 66.1 | 3,930 |
| July | ---------- | ---------- | 26.6 | 1,640 |
| August | ---------- | ---------- | 18.9 | 1,160 |
| September | ---------- | ---------- | 19.2 | 1,140 |
| The year | 349 | ---------- | 83.5 | 60,400 |

### LITTLE WOOD RIVER NEAR RICHFIELD, IDAHO

LOCATION.—In sec. 30, T. 4 S., R. 20 E., half a mile above heading of Dietrich Canal and 1 mile east of railroad station at Richfield, Lincoln County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—January 1, 1911, to September 30, 1926.

GAGE.—Gurley water-stage recorder, on right bank, installed April 14, 1920; inspected by deputies of water master for Big Wood and Little Wood Rivers.

DISCHARGE MEASUREMENTS.—Made from suspension footbridge just below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of coarse gravel and small rocks; rough. Control may change slightly. Stage-discharge relation may be affected during summer by light growth of aquatic plants.

EXTREMES OF DISCHARGE.—Maximum discharge recorded, 255 second-feet April 20 (gage height, 2.29 feet); minimum discharge, 51 second-feet 8 to 11 a. m. May 7, 4 to 6 a. m. May 22, and 2 to 6 a. m. May 30.

1911–1926: Maximum stage recorded, 4.5 feet May 17 and 18, 1911 (discharge, 722 second-feet); minimum stage, 0.52 foot June 24 and 25, 1920 (discharge, 7.6 second-feet).

ICE.—Stage-discharge relation affected by ice; observations discontinued during winter.

DIVERSIONS.—Small ranch diversions are made above station. Dietrich Canal diverts a short distance downstream.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed April 18–30, May 26–29, August 16–28, and September 17–30, owing to aquatic growth and brush along banks. Four curves parallel to well-defined rating curve used during year. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method, except as noted in footnote to table of daily discharge. Records good.

COOPERATION.—Gage-height record and some discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

*Discharge measurements of Little Wood River near Richfield, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 18 | 1.96 | 163 | May 30 | 1.39 | 62.2 | July 13 | 1.42 | 65.9 |
| Apr. 15 | 2.17 | 229 | June 10 | 1.32 | 56.5 | Aug. 2 | 1.37 | 62.6 |
| May 3 | 1.40 | 69.0 | June 12 | 1.32 | 63.0 | Aug. 24 | 1.38 | 57.2 |
| May 21 | 1.29 | 56.5 | June 14 | 1.36 | 60.4 | Sept. 11 | 1.40 | 62.2 |
| May 25 | 1.30 | 58.2 | July 3 | 1.37 | 61.8 | | | |

*Daily discharge, in second-feet, of Little Wood River near Richfield, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 167 | 60 | 55 | 65 | 59 | 61 | 16 | 230 | 63 | 60 | 64 | 61 | 63 |
| 2 | 165 | 59 | 58 | 65 | 60 | 63 | 17 | 237 | 61 | 61 | 66 | 61 | 65 |
| 3 | 163 | 65 | 59 | 64 | 60 | 65 | 18 | 240 | 63 | 63 | 68 | 60 | 65 |
| 4 | 165 | 63 | 64 | 64 | 61 | 65 | 19 | 244 | 60 | 65 | 68 | 63 | 65 |
| 5 | 167 | 55 | 66 | 65 | 57 | 65 | 20 | 255 | 57 | 68 | 68 | 63 | 65 |
| 6 | 180 | 54 | 63 | 69 | 57 | 65 | 21 | 252 | 55 | 66 | 64 | 64 | 65 |
| 7 | 202 | 53 | 61 | 66 | 60 | 66 | 22 | 234 | 54 | 70 | 64 | 61 | 65 |
| 8 | 216 | 55 | 60 | 66 | 63 | 64 | 23 | 225 | 58 | 68 | 65 | 60 | 65 |
| 9 | 225 | 59 | 59 | 65 | 63 | 65 | 24 | 211 | 57 | 66 | 65 | 61 | 68 |
| 10 | 229 | 63 | 55 | 69 | 61 | 65 | 25 | 189 | 59 | 61 | 64 | 61 | 69 |
| 11 | 233 | 65 | 55 | 70 | 61 | 63 | 26 | 182 | 63 | 59 | 60 | 63 | 73 |
| 12 | 237 | 65 | 55 | 70 | 61 | 64 | 27 | 167 | 60 | 60 | 61 | 64 | 74 |
| 13 | 234 | 65 | 58 | 68 | 61 | 63 | 28 | 145 | 57 | 60 | 61 | 64 | 77 |
| 14 | 232 | 66 | 60 | 68 | 60 | 63 | 29 | 109 | 53 | 63 | 60 | 63 | 77 |
| 15 | 227 | 64 | 60 | 68 | 61 | 63 | 30 | 79 | 52 | 63 | 60 | 61 | 78 |
| | | | | | | | 31 | ------ | 53 | ------ | 59 | 60 | ------ |

NOTE.—Discharge interpolated Apr. 4, 10, 11, Aug. 12.

*Monthly discharge of Little Wood River near Richfield, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April | 255 | 79 | 201 | 12,000 |
| May | 66 | 52 | 59.2 | 3,640 |
| June | 70 | 55 | 61.4 | 3,650 |
| July | 70 | 59 | 65.1 | 4,000 |
| August | 64 | 57 | 61.1 | 3,760 |
| September | 78 | 61 | 66.5 | 3,960 |
| The period | | | | 31,000 |

### LITTLE WOOD RIVER AT SHOSHONE, IDAHO

LOCATION.—In sec. 2, T. 6 S., R. 17 E., just above diversion dam for town water supply and 400 feet above highway bridge on Shoshone-Richfield road in Shoshone, Lincoln County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 1, 1922, to September 30, 1926.

GAGE.—Gurley water-stage recorder on left bank; inspected by B. E. Powell and James Devaney.

DISCHARGE MEASUREMENTS.—Made from cable quarter of a mile above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock partly overlain with sand and gravel. Banks steep. One channel at all stages. Control for low and medium stages formed by crest of concrete diversion dam, middle section of which consists of flashboards. No well-defined control for high stages.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 1.57 feet at 11 p. m. May 26 (discharge, 326 second-feet); minimum stage unknown as water fell below trenched inlet to well several times.

1922–1926: Maximum stage recorded, 2.26 feet June 18, 1922 (discharge, 664 second-feet); minimum stage, 0.34 foot at 10 a. m. September 3, 1924 (discharge, 0.4 second-foot).

ICE.—No record.

DIVERSIONS.—Numerous irrigation diversions above and below. A small ditch for the Shoshone water supply diverts from left bank directly below gage.

REGULATION.—None except that due to diversions.

ACCURACY.—Stage-discharge relation unchanged during year. Rating curve used well defined between 0 and 500 second-feet. Operation of water-stage recorder not wholly satisfactory. Owing to stage dropping below inlet to well one daily staff reading to hundredths used July 15–18, 25–31, August 1, 2, 12–14, 31, and September 14. Daily discharge ascertained by applying to rating table daily or mean daily gage height except as indicated in footnote to table of daily discharge. During periods water-stage recorder was operated mean daily gage height determined by inspection of recorder graph. Records good.

COOPERATION.—Gage-height record and three discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

*Discharge measurements of Little Wood River at Shoshone, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 19 | 0.98 | 106 | May 4 | 1.46 | 270 | July 13 | 0.67 | 37.9 |
| Do | .98 | 103 | July 3 | 1.49 | 302 | Aug. 12 | .70 | 37.2 |
| Mar. 26 | 1.14 | 141 | July 12 | .71 | 40.6 | | | |

*Daily discharge, in second-feet, of Little Wood River at Shoshone, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 47 | 202 | 278 | 282 | 39 | 44 | 16 | 133 | 268 | 264 | 40 | 72 | 44 |
| 2 | 45 | 230 | 273 | 306 | 39 | 45 | 17 | 136 | 260 | 260 | 39 | 246 | 44 |
| 3 | 63 | 230 | 278 | 301 | 40 | 44 | 18 | 143 | 264 | 260 | 42 | 206 | 47 |
| 4 | 72 | 260 | 278 | 291 | 40 | 47 | 19 | 146 | 260 | 268 | 39 | 63 | 47 |
| 5 | 84 | 296 | 278 | 221 | 40 | 54 | 20 | 152 | 260 | 264 | 86 | 53 | 45 |
| 6 | 91 | 278 | 278 | 76 | 38 | 45 | 21 | 152 | 255 | 264 | 273 | 51 | 47 |
| 7 | 119 | 255 | 273 | 45 | 45 | 44 | 22 | 146 | 260 | 255 | 238 | 49 | 49 |
| 8 | 136 | 238 | 268 | 37 | 40 | 45 | 23 | 136 | 264 | 255 | 54 | 47 | 49 |
| 9 | 156 | 242 | 268 | 44 | 42 | 42 | 24 | 166 | 282 | 260 | 47 | 44 | 49 |
| 10 | 184 | 250 | 273 | 36 | 54 | 44 | 25 | 152 | 286 | 264 | 44 | 45 | 53 |
| 11 | 184 | 250 | 255 | 38 | 49 | 47 | 26 | 124 | 301 | 250 | 42 | 45 | 54 |
| 12 | 169 | 250 | 260 | 39 | 44 | 45 | 27 | 97 | 316 | 268 | 40 | 45 | 58 |
| 13 | 152 | 246 | 268 | 39 | 44 | 45 | 28 | 89 | 301 | 278 | 42 | 47 | 47 |
| 14 | 139 | 250 | 268 | 40 | 44 | 44 | 29 | 84 | 306 | 273 | 44 | 44 | 47 |
| 15 | 136 | 260 | 264 | 39 | 44 | 44 | 30 | 133 | 296 | 282 | 44 | 44 | 45 |
| | | | | | | | 31 | ------ | 286 | ------ | 40 | 44 | ------ |

NOTE.—Discharge estimated July 14 and Aug. 15 based upon information furnished by water master for Big Wood and Little Wood Rivers. Method for subdivided day used July 5 and 20. Station discontinued during winter; no record except Oct. 19 (discharge, 102 second-feet) and March 26 (discharge, 149 second-feet).

*Monthly discharge of Little Wood River at Shoshone, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April | 184 | 45 | 126 | 7,500 |
| May | 316 | 202 | 265 | 16,300 |
| June | 282 | 250 | 268 | 15,900 |
| July | 306 | 36 | 96.4 | 5,930 |
| August | 246 | 38 | 57.6 | 3,540 |
| September | 58 | 42 | 46.8 | 2,780 |
| The period | | | | 52,000 |

### FISH CREEK ABOVE DAM NEAR CAREY, IDAHO

LOCATION.—In sec. 2, T. 1 N., R. 22 E., 1¾ miles above mouth of West Fork of Fish Creek, 2 miles above dam of Carey Valley Reservoir Co., and 14 miles northeast of Carey, Blaine County.

DRAINAGE AREA.—About 56 square miles (measured on base map of Idaho).

RECORDS AVAILABLE.—May 3, 1920, to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder installed March 22. Vertical staff prior to that date; read by A. Gilliam and G. C. Thompson.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of coarse sand and gravel. Left bank may be overflowed at high stages. Control formed by 18-foot Cippoletti weir set in concrete, 8 feet below gage.

EXTREMES OF DISCHARGE.—Maximum discharge occurred during estimated period April 16–28. Channel practically dry 1 to 7 a. m. September 9 and 8 p. m. September 9 to 6 a. m. September 12.

1920–1926: Maximum stage recorded, 1.78 feet 9 a. m. to 1 p. m. May 6, 1922 (discharge, 158 second-feet); minimum stage and discharge occurred during 1926.

ICE.—Stage-discharge relation affected by ice December 31 to February 1.

DIVERSIONS.—Several small diversions above gage.

REGULATION.—None except as affected by diversions above.

ACCURACY.—Stage-discharge relation not permanent. Rating curve used well defined between 0 and 60 second-feet and two curves parallel thereto. Daily discharge determined by applying daily gage height to rating table; shifting-control method used June 18 to July 3. Records good except for estimated periods, for which they are poor.

COOPERATION.—Gage-height record furnished by water master for Fish Creek.

*Discharge measurements of Fish Creek above dam near Carey, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 17 | 0.32 | 11.2 | June 9 | 0.22 | 5.8 |
| Mar. 29 | .44 | 17.1 | July 12 | .15 | 4.8 |
| May 9 | .44 | 16.9 | | | |

*Daily discharge, in second-feet, of Fish Creek above dam near Carey, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.3 | | | | | | | 17 | 5.4 | 4.3 | 1.2 | 3.2 |
| 2 | 6.3 | | | | | | | 15 | 5.0 | 4.7 | 1.2 | 3.2 |
| 3 | 6.3 | | | | 4 | | | 17 | 5.0 | 3.9 | 1.2 | 3.2 |
| 4 | 6.3 | 9 | 7 | | | 14 | | 17 | 4.3 | 4.3 | 1.2 | 3.2 |
| 5 | 6.3 | | | | | | 20 | 17 | 3.9 | 4.3 | 1.9 | 2.9 |
| 6 | 6.3 | | | | 5.4 | | | 17 | 5.4 | 3.9 | 2.9 | 2.9 |
| 7 | 7.2 | | 5.0 | | | 17 | | 17 | 6.3 | 4.3 | 2.9 | 2.9 |
| 8 | 7.2 | | | | | | | 17 | 5.9 | 5.0 | 2.6 | 2.5 |
| 9 | 9.0 | | | | | | | 17 | 5.0 | 5.0 | 1.7 | .1 |
| 10 | 9.0 | | | | 6 | | | 17 | 3.9 | 4.7 | 1.9 | 0 |
| | | 8 | 6 | | | 21 | | | | | | |
| 11 | 9.0 | | | | | | | 16 | 3.9 | 4.3 | 1.9 | 0 |
| 12 | 12 | | | | | | 35 | 15 | 2.9 | 4.3 | 1.9 | 1.7 |
| 13 | 11 | | | | | | | 16 | 1.9 | 4.3 | 1.9 | 3.2 |
| 14 | 11 | | | | | 25 | | 16 | 1.7 | 3.2 | 1.9 | 3.5 |
| 15 | 10 | 5.4 | 6.3 | 3 | 6.3 | | | 17 | 2.2 | 3.2 | 1.7 | 3.2 |
| 16 | 10 | | | | | | | 16 | 2.2 | 2.2 | 1.7 | 3.2 |
| 17 | 11 | | | | | | | 14 | 3.2 | 2.9 | 1.7 | 4.3 |
| 18 | 11 | | 7 | | 7 | 35 | | 13 | 4.7 | 2.9 | 1.9 | 4.3 |
| 19 | 10 | | | | | | | 13 | 6.3 | 1.4 | 1.9 | 4.7 |
| 20 | 10 | | | | | | | 14 | 6.7 | .9 | 2.2 | 4.3 |
| 21 | 9.0 | | 7.2 | | 7.2 | | | 14 | 6.7 | .4 | 2.6 | 4.7 |
| 22 | 9.0 | 6 | | | | 30 | 60 | 13 | 5.4 | .3 | 2.6 | 4.3 |
| 23 | 9.0 | | | | | 31 | | 13 | 5.0 | .9 | 1.9 | 4.7 |
| 24 | 9.0 | | | | | 31 | | 13 | 4.3 | 1.2 | 1.9 | 4.7 |
| 25 | 9.0 | | 5 | | 9 | 28 | | 13 | 5.0 | 1.2 | 1.7 | 5.0 |
| 26 | 9.0 | | | | | 25 | | 13 | 5.0 | 1.2 | 1.7 | 5.0 |
| 27 | 9.0 | | | | | 24 | | 11 | 4.3 | 1.2 | 1.9 | 5.0 |
| 28 | 9.0 | | | | 11 | 22 | | 7.6 | 3.9 | .9 | 1.9 | 5.0 |
| 29 | 9.0 | | | | ------ | 17 | 11 | 6.7 | 3.9 | .9 | 1.7 | 5.0 |
| 30 | 10 | 6.3 | 4.3 | | ------ | 20 | 10 | 6.3 | 3.9 | .7 | 1.7 | 5.0 |
| 31 | 9 | ------ | 3 | ------ | ------ | | ------ | 6.3 | ------ | .9 | 2.2 | ------ |

NOTE.—Because of missing gage heights or ice, discharge estimated Oct. 31, Nov. 14, Dec. 31, and on days indicated by braced figures based on comparison with flow at Hailey and in Little Wood River. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Fish Creek above dam near Carey, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 12 | 6.3 | 8.88 | 546 |
| November | ---------- | ---------- | 7.12 | 424 |
| December | ---------- | ---------- | 5.96 | 366 |
| January | ---------- | ---------- | 3.0 | 180 |
| February | ---------- | ---------- | 6.68 | 371 |
| March | ---------- | ---------- | 24.0 | 1,480 |
| April | ---------- | ---------- | 40.7 | 2,420 |
| May | 17 | 6.3 | 14.0 | 861 |
| June | 6.7 | 1.7 | 4.44 | 264 |
| July | 5.0 | .3 | 2.70 | 166 |
| August | 2.9 | 1.2 | 1.91 | 117 |
| September | 5.0 | 0 | 3.50 | 208 |
| The year | ---------- | 0 | 10.2 | 7,400 |

### FISH CREEK NEAR CAREY, IDAHO

LOCATION.—In sec. 22, T. 1 N., R. 22 E., 1½ miles below dam of Carey Valley Reservoir Co. and 11 miles northeast of Carey, Blaine County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 10, 1919, to September 30, 1920; May 12, 1923, to September 30, 1926. Several discharge measurements obtained in 1921 and 1922.

GAGE.—Vertical staff on left bank, attached to concrete float well, October 1 to December 11; Stevens 8-day water-stage recorder on left bank thereafter; inspected by A. Gilliam.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock covered by gravel, sand, and silt. One channel at all stages. Control formed by Cippoletti weir set in concrete, located immediately below gage; weir crest is 17.64 feet in length. Zero of gage at mean elevation of weir crest.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.20 feet from midnight to 7.30 a. m. July 17 (discharge, 78 second-feet); practically dry during nonirrigation season.

1919–1920, 1923–1926: Maximum stage recorded, 1.46 feet August 3 and 5, 1923 (discharge, 108 second-feet); practically no flow during nonirrigation seasons since completion of reservoir above gage in 1920.

ICE.—Stage-discharge relation probably affected by ice; practically no flow in winter.

DIVERSIONS.—None between station and dam.

REGULATION.—Flow completely regulated by operation of gates in dam above.

ACCURACY.—Stage-discharge relation changed slightly. Two rating curves used during year; one from October 1 to December 11 is well defined between 0 and 80 second-feet above which it is extended on basis of standard weir formula; the other, based on formula for trapezoidal weirs, used April 29 to September 30. Staff gage read once daily to hundredths October 1 to December 11. Operation of water-stage recorder satisfactory April 29 to September 30. Daily discharge determined by applying to rating table daily gage height or mean daily gage height obtained by inspection of recorder graph; shifting-control method used September 20–30. Records good except for estimated periods, for which they are fair.

COOPERATION.—Gage-height record furnished by water master for Fish Creek.

*Discharge measurements of Fish Creek near Carey, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 17 | 0.25 | 8.5 | May 9 | 0.88 | 50 | July 12 | 0.70 | 34.3 |
| Mar. 29 | | 2.3 | June 9 | 1.10 | 69 | Sept. 12 | .34 | 11.8 |

*Daily discharge, in second-feet, of Fish Creek near Carey, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | | | | 29 | 47 | 66 | 32 | 5.5 |
| 2 | 14 | | | | 33 | 48 | 65 | 34 | 5.2 |
| 3 | 14 | 2 | 1.5 | | 37 | 52 | 67 | 26 | 5.2 |
| 4 | 14 | | | | 39 | 51 | 56 | 21 | 5.5 |
| 5 | 18 | | 1.5 | | 44 | 51 | 56 | 20 | 5.2 |
| 6 | 18 | 1.5 | | | 49 | 56 | 65 | 20 | 4.4 |
| 7 | 18 | | | | 48 | 59 | 67 | 2.7 | 3.6 |
| 8 | 18 | | 1.5 | | 48 | 65 | 55 | | 7.3 |
| 9 | 18 | | | | 48 | 68 | 32 | | 21 |
| 10 | 12 | 1.5 | | | 45 | 59 | 31 | 3.0 | 21 |
| 11 | 12 | | 1.5 | | 41 | 67 | 32 | | 19 |
| 12 | 12 | | | | 40 | 67 | 35 | 3.6 | 12 |
| 13 | 12 | 1.5 | | | 40 | 64 | 41 | 3.6 | 13 |
| 14 | 11 | | | | 40 | 66 | 55 | 3.6 | 13 |
| 15 | 11 | | | | 46 | 63 | 55 | 6.4 | 9.6 |
| 16 | 10 | 1.5 | | | 40 | 54 | 59 | 25 | 8.2 |
| 17 | 8.2 | | | | 32 | 39 | 37 | 17 | 8.2 |
| 18 | 8.2 | | | | 44 | 32 | 40 | 10 | 9.1 |
| 19 | 8.2 | | | | 51 | 32 | 59 | 15 | 13 |
| 20 | 8.2 | | | | 44 | 30 | 63 | 17 | 17 |
| 21 | 5.5 | 1.5 | | | 34 | 31 | 61 | 15 | 19 |
| 22 | 2.7 | | | | 34 | 32 | 68 | 8.7 | 18 |
| 23 | 2.7 | | | | 38 | 34 | 66 | 10 | 18 |
| 24 | 2.7 | 1.5 | | | 41 | 37 | 58 | 9.1 | 17 |
| 25 | 2.7 | | | | 43 | 44 | 57 | 8.2 | 14 |
| 26 | 2.7 | | | | 43 | 49 | 46 | 9.1 | 12 |
| 27 | 2.7 | 1.5 | | | 42 | 52 | 46 | 13 | 13 |
| 28 | 2.7 | 1.5 | | | 48 | 65 | 48 | 27 | 16 |
| 29 | 2.7 | | | 14 | 50 | 70 | 39 | 26 | 15 |
| 30 | 2.7 | 1.5 | | 23 | 47 | 70 | 25 | 14 | 15 |
| 31 | 2.7 | | | | 48 | | 25 | 7.3 | |

NOTE.—Discharge estimated because of missing gage heights Nov. 1–5, 7–12, 14–20, 22–26, 28, 29, Dec. 1–4, 6–10, and Aug. 8–11. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Fish Creek near Carey, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 18 | 2.7 | 9.40 | 578 |
| November | | | 1.58 | 94.0 |
| December 1–11 | | | 1.50 | 32.7 |
| April 29–30 | 23 | 14 | 18.5 | 73.4 |
| May | 51 | 29 | 42.1 | 2,590 |
| June | 70 | 30 | 51.8 | 3,080 |
| July | 68 | 25 | 50.8 | 3,120 |
| August | 34 | | 13.4 | 824 |
| September | 21 | 3.6 | 12.1 | 720 |

### WEST FORK OF FISH CREEK NEAR CAREY, IDAHO

LOCATION.—In sec. 3, T. 1 N., R. 22 E., 1¾ miles above confluence with Fish Creek, 2 miles above dam of the Carey Valley Reservoir Co., and 14 miles northeast of Carey, Blaine County.

DRAINAGE AREA.—About 12.5 square miles (measured on base map of Idaho).

RECORDS AVAILABLE.—May 11, 1920, to September 30, 1926. Discharge measurements only available in 1923.

GAGE.—Prior to May 14 measured head of water on weir crest. Staff gage on left bank reinstalled May 14, 1926; read by A Gilliam and G. C. Thompson.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of coarse sand and gravel. One channel at all stages. Control formed by 12-foot Cippoletti weir set in concrete prior to May 14, 1926, after which it was formed by 4-foot Cippoletti weir for stages below 0.26 foot, and by 12-foot weir for higher stages.

EXTREMES OF DISCHARGE.—Maximum discharge during year, estimated 5.0 second-feet April 16–28; minimum discharge, estimated 0.1 second-foot December 4–7, January 16–31, and July 27–31. Probably not actual extremes.

1920–1922, 1925–1926: Maximum stage recorded, 0.93 foot at 9 p. m. April 22, 1922 (discharge, 42.8 second-feet); minimum discharge, 0.1 second-foot at 8.30 p. m. August 8, 1920, for several days in 1924 after June 26, on December 4–7, 1925, January 16–31, and July 27–31, 1926.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—One small diversion above gage.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed May 9–14, when artificial control formed by 12-foot weir crest was reduced to 4 feet for low stages; slightly affected by accumulation of trash on control September 23–30. Rating curves used based on standard weir formula and curves parallel thereto as defined by discharge measurements. Depth of water over weir crest measured to hundredths for days indicated in footnote to table of daily discharge. Daily discharge determined by applying daily gage height to rating table except for days of missing records for which it was interpolated or estimated as noted in footnote to table of daily discharge. Records fair except November to April, for which they are poor.

COOPERATION.—Gage-height record furnished by water master for Fish Creek.

*Discharge measurements of West Fork of Fish Creek near Carey, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 17 | [a] 0.03 | 0.2 | June 9 | [c] 0.10 | 0.4 |
| Mar. 29 | [a] .11 | 1.4 | July 12 | [c] .05 | [d] .2 |
| May 9 | [b] .12 | 1.2 | | | |

[a] 12-foot weir crest.
[b] 12-foot weir crest with angle irons forming crest removed.
[c] 4-foot weir crest.
[d] Estimated.

*Daily discharge, in second-feet, of West Fork of Fish Creek near Carey, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | | 0.2 | | | 0.6 | | 0.9 | 0.6 | 0.2 | 0.2 | 0.2 |
| 2 | .5 | | .2 | | | .7 | | .9 | .6 | .2 | .2 | .2 |
| 3 | .5 | | .2 | | | .8 | | .9 | | .2 | | .2 |
| 4 | .5 | | .1 | | | 1.0 | | .9 | | .2 | | .2 |
| 5 | .5 | | .1 | | | 1.1 | 2.0 | .9 | .5 | .2 | | .2 |
| | | | | | | | | | | | .3 | |
| 6 | .5 | | .1 | | | 1.2 | | .9 | | .2 | | .2 |
| 7 | .5 | | .1 | | | 1.3 | | .9 | .6 | .3 | | .2 |
| 8 | .5 | 0.4 | | 0.2 | | 1.3 | | 1.1 | .6 | .3 | | .2 |
| 9 | .5 | | | | | 1.3 | | 1.3 | .4 | .3 | .2 | .2 |
| 10 | .5 | | | | | 1.3 | | 1.2 | .4 | .3 | .2 | .2 |
| 11 | .5 | | | | | 1.3 | 3.0 | 1.0 | .4 | .2 | .2 | .2 |
| 12 | .5 | | | | | 1.3 | | .8 | .4 | .2 | .2 | .2 |
| 13 | .5 | | | | | 1.3 | | .6 | .4 | .2 | .2 | .2 |
| 14 | .4 | | | | | 1.3 | | .8 | .4 | .2 | .2 | .2 |
| 15 | .3 | .1 | | | 0.4 | 1.5 | | .9 | .3 | .2 | .2 | .2 |
| 16 | .2 | | | | | 1.6 | | .9 | .3 | .2 | .2 | .2 |
| 17 | .2 | | | | | 1.8 | | .9 | .3 | .2 | .2 | .2 |
| 18 | .2 | | | | | 1.9 | | .9 | .3 | .2 | | .2 |
| 19 | .2 | | | | | 2.1 | | .9 | .4 | .2 | | .2 |
| 20 | .2 | | .2 | | | 2.2 | | .9 | .4 | .2 | | .2 |
| 21 | .3 | | | | | 2.4 | | .9 | .4 | .2 | .3 | .2 |
| 22 | .3 | .2 | | | | 2.6 | 5.0 | .9 | .4 | .2 | | .2 |
| 23 | .4 | | | .1 | | | | .9 | .4 | .2 | | .2 |
| 24 | .4 | | | | | | | .8 | .3 | .2 | | .2 |
| 25 | .5 | | | | | | | .8 | .3 | .2 | .2 | .2 |
| | | | | | | 2.4 | | | | | | |
| 26 | .5 | | | | | | | .7 | .3 | .2 | .2 | .2 |
| 27 | .5 | | | | | | | .7 | .2 | | .2 | .2 |
| 28 | .6 | | | | .5 | | | .7 | .2 | | .2 | .2 |
| 29 | .6 | | | | | 1.5 | .9 | .7 | .2 | .1 | .2 | .2 |
| 30 | .6 | .2 | | | | 2.0 | .9 | .7 | .2 | | .2 | .2 |
| 31 | .6 | | | | | | | .7 | | | .2 | |

NOTE.—Gage read Oct. 3, 5, 9, 13, 17, 30, Nov. 15, 30, Dec. 7, Feb. 28, Mar. 7, 14, 22, 29, Apr. 29, May 7, 9, 13, 15, 17, 21, 28, 30, June 2, 7, 9, 12, 17, 21, 29, July 3, 9, 12, 13, 18, 26, Aug. 2, 9, 14, 17, 25, 30, Sept. 3, 6, 14, 19, 23, 27; at other times discharge was interpolated or estimated, based on comparison with flow of Fish Creek above dam and Little Wood River near Carey. Braced figures show mean discharge for periods indicated.

*Monthly discharge of West Fork of Fish Creek near Carey, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 0.6 | 0.2 | 0.44 | 27 |
| November | | | .29 | 17 |
| December | | | .19 | 12 |
| January | | | .15 | 9.2 |
| February | | | .40 | 22 |
| March | | .6 | 1.67 | 103 |
| April | | .9 | 3.49 | 208 |
| May | 1.3 | .6 | .87 | 53 |
| June | | .2 | .39 | 23 |
| July | .3 | | .20 | 12 |
| August | | | .24 | 15 |
| September | .2 | .2 | .20 | 12 |
| The year | | | .71 | 513 |

### SILVER CREEK NEAR PICABO, IDAHO

LOCATION.—In sec. 1, T. 2 S., R. 20 E., at Brett ranch, 1½ miles below mouth of drain ditch of Blaine County Drainage District No. 1, and 3 miles south of Picabo, Blaine County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 25, 1920, to September 30, 1926.

GAGE.—Gurley water-stage recorder on left bank about 450 feet below Brett ranch house; installed July 29, 1922; inspected by B. E. Powell and E. F. McDowell.

DISCHARGE MEASUREMENTS.—Made from footbridge 150 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of rock overlain with fine gravel; subject to slight changes due to aquatic growth.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period, from water-stage recorder, 2.40 feet October 16 (discharge, 195 second-feet); minimum stage, 1.11 feet from 11 a. m. to 1 p. m. May 1 (discharge, 78 second-feet).

1920–1926: Maximum discharge, 312 second-feet at 4 p. m. April 3, 1923; minimum stage, 0.48 foot at 7 p. m. June 2, 1920 (discharge, 26 second-feet).

ICE.—Stage-discharge relation slightly affected by ice at times. Observations discontinued during winter.

DIVERSIONS.—Numerous irrigation diversions above gage. During part of year some water diverted around gage on right bank through a small slough which heads about 300 feet above gage.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed June 11–20 owing to aquatic growth below gage. Two curves used parallel to standard rating curve and well defined between 20 and 200 second-feet; one used from March 28 to June 10 and the other from June 21 to September 30. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph except June 11–20, when shifting-control method was used, and as indicated in footnote to table of daily discharge. Records good.

COOPERATION.—Gage-height record and six discharge measurements furnished by water master for Big Wood and Little Wood Rivers.

*Discharge measurements of Silver Creek near Picabo, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 16 | 2.40 | 195 | June | 1.31 | 94 | July 12 | 1.40 | 102 |
| Mar. 28 | 1.84 | 149 | June 8 | 1.28 | 93 | July 15 | 1.36 | 94 |
| May 9 | 1.30 | 96 | June 23 | 1.37 | 94 | Aug. 21 | 1.28 | 88 |
| May 12 | 1.32 | 95 | June 29 | 1.30 | 91 | Sept. 12 | 1.37 | 94 |

*Daily discharge, in second-feet, of Silver Creek near Picabo, Idaho, for the year ending September 30, 1926*

| Day | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 1 | | 156 | 81 | 96 | 91 | 84 | 86 |
| 2 | | 157 | 88 | 97 | 89 | 83 | 90 |
| 3 | | 151 | 88 | 97 | 90 | 85 | 94 |
| 4 | | 151 | 88 | 100 | 89 | 84 | 97 |
| 5 | | | 88 | 97 | 92 | 83 | 97 |
| 6 | | 160 | 85 | 94 | 95 | 84 | 96 |
| 7 | | | 95 | 94 | 89 | 87 | 94 |
| 8 | | 177 | 94 | 93 | 90 | 88 | 92 |
| 9 | | | 93 | 94 | 99 | 89 | 94 |
| 10 | | 160 | 98 | 94 | 100 | 87 | 96 |
| 11 | | | 101 | 92 | 99 | 88 | 97 |
| 12 | | 143 | 98 | 93 | 100 | 86 | 96 |
| 13 | | 140 | 98 | 93 | 98 | 85 | 96 |
| 14 | | 140 | 97 | 93 | 97 | 83 | 95 |
| 15 | | 141 | 95 | 91 | 95 | 84 | 96 |
| 16 | | 140 | 93 | 95 | 92 | 83 | 96 |
| 17 | | 137 | 95 | 93 | 93 | 83 | 97 |
| 18 | | 135 | 91 | 93 | 92 | 85 | 97 |
| 19 | | 145 | 87 | 100 | 92 | 87 | 98 |
| 20 | | 147 | 89 | 100 | 90 | 88 | 98 |
| 21 | | 140 | 88 | 96 | 91 | 88 | 98 |
| 22 | | 133 | 90 | 99 | 94 | 86 | 95 |
| 23 | | 127 | 92 | 97 | 92 | 86 | 94 |
| 24 | | 117 | 91 | 94 | 88 | 85 | 97 |
| 25 | | 115 | 95 | 91 | 89 | 86 | 99 |
| 26 | | 114 | 93 | 90 | 90 | 87 | 104 |
| 27 | | 106 | 92 | 91 | 91 | 87 | 106 |
| 28 | 148 | 98 | 87 | 90 | 90 | 86 | 106 |
| 29 | 147 | 92 | 88 | 88 | 88 | 86 | 107 |
| 30 | 147 | 82 | 88 | 90 | 86 | 86 | 103 |
| 31 | 150 | ------ | 89 | ------ | 84 | 85 | ------ |

NOTE.—Owing to missing gage-height record discharge estimated Apr. 5–7, 9–11; interpolated June 30.

*Monthly discharge of Silver Creek near Picabo, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| March 28–31 | 150 | 147 | 148 | 1,170 |
| April | ------ | 82 | 138 | 8,210 |
| May | 101 | 81 | 91.5 | 5,630 |
| June | 100 | 88 | 94.2 | 5,610 |
| July | 100 | 84 | 92.1 | 5,660 |
| August | 89 | 83 | 85.6 | 5,260 |
| September | 107 | 86 | 97.0 | 5,770 |
| The period | ------ | ------ | ------ | 37,300 |

NOTE.—The flow through slough which occasionally diverts water around gage on right bank is estimated, based partly on information furnished by water master for Big Wood and Little Wood Rivers and on data obtained by Geological Survey engineers, as follows: April, 8 acre-feet; May, 71 acre-feet.

### LONG TOM CREEK BELOW LONG TOM RESERVOIR, NEAR BENNETT, IDAHO

LOCATION.—In sec. 35, T. 1 S., R. 7 E. (formerly given as sec. 2, T. 2 S., R. 7 E.), 500 feet below Long Tom Reservoir, 8 miles southwest of Bennett, Elmore County, and 17 miles northeast of Mountain Home.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 31 to December 6, 1917; April 12, 1924, to September 30, 1926, when station was discontinued.

GAGE.—Au water-stage recorder installed May 10, 1924; inspected by James Spofford and Geological Survey engineers.

DISCHARGE MEASUREMENTS.—Made from footbridge or by wading.

CHANNEL AND CONTROL.—Bed composed of sand and small gravel. Left bank brushy below gage and may be overflowed at high stages. Control formed by well-defined riffle 40 feet below gage; subject to change.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 1.91 feet June 14 (discharge, 65 second-feet); channel practically dry after July 31 and November to March.

1917, 1924–1926: Maximum stage recorded, 2.73 feet July 15, 1925 (discharge, 127 second-feet); practically no flow except during irrigation seasons.

DIVERSIONS.—None between reservoir and gage. A small amount of leakage from dam above flows to left of gage and enters the creek channel some distance below. During 1926 this flow was included in that passing gage.

REGULATION.—Flow regulated by gates at Long Tom Reservoir.

ACCURACY.—Stage-discharge relation changed during winter. Two well-defined rating curves used, the first applicable October 1–8 and the second April 27 to July 31. Operation of water-stage recorder satisfactory except June 17–29. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph, except as indicated in footnote to table of daily discharge. Records good.

*Discharge measurements of Long Tom Creek below Long Tom Reservoir, near Bennett, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 8 | [a] 0.82 | [b] 2.0 | May 7 | 1.78 | 54.6 | July 1 | 1.88 | 63.1 |
| Apr. 27 | [c] .98 | 10.8 | May 24 | 1.80 | 56.3 | July 15 | 1.39 | 29.7 |
| Apr. 30 | .98 | 9.4 | | | | | | |

[a] From inside gage. [b] Estimated. [c] From outisde gage.

*Daily discharge, in second-feet, of Long Tom Creek below Long Tom Reservoir, near Bennett, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Apr. | May | June | July | Day | Oct. | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.9 | | 24 | 56 | 62 | 16 | | | 55 | 64 | 36 |
| 2 | 1.7 | | 30 | 56 | 60 | 17 | | | 55 | | 43 |
| 3 | 1.7 | | 42 | 53 | 52 | 18 | | | 55 | | 43 |
| 4 | 1.7 | | 48 | 45 | 51 | 19 | | | 55 | | 41 |
| 5 | 1.9 | | 55 | 46 | 48 | 20 | | | 56 | 64 | 43 |
| 6 | 4.3 | | 55 | 46 | 45 | 21 | | | 56 | | 44 |
| 7 | 3.2 | | 55 | 46 | 39 | 22 | | | 56 | | 42 |
| 8 | 2.1 | | 55 | 46 | 39 | 23 | | | 56 | 62 | 41 |
| 9 | | | 55 | 48 | 39 | 24 | | | 56 | | 39 |
| 10 | | | 55 | 55 | 37 | 25 | | | 56 | 57 | 37 |
| 11 | | | 54 | 57 | 31 | 26 | | | 56 | | 35 |
| 12 | | | 54 | 61 | 31 | 27 | | 9.8 | 56 | 58 | 32 |
| 13 | | | 54 | 62 | 30 | 28 | | 9.8 | 56 | 59 | 29 |
| 14 | | | 54 | 65 | 29 | 29 | | 9.8 | 56 | 60 | 18 |
| 15 | | | 54 | 64 | 30 | 30 | | 9.8 | 56 | 62 | 7 |
| | | | | | | 31 | | | 56 | | 2 |

NOTE.—Discharge estimated, based on records at Mountain Home feeder canal station and on gate changes in Long Tom Reservoir Oct. 7, May 1–5, June 17–29, July 30, 31; interpolated Apr. 28, 29. Braced figures show mean discharge for periods included. Record of flow passing gage includes small spring flow, consisting of leakage from dam above gage which enters channel below.

*Monthly discharge of Long Tom Creek below Long Tom Reservoir, near Bennett, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October 1–8 | 4.3 | 1.7 | 2.31 | 36.7 |
| April 27–30 | 9.8 | 9.8 | 9.80 | 77.8 |
| May | 56 | ---------- | 52.8 | 3,250 |
| June | 65 | 45 | 57.5 | 3,420 |
| July | 62 | ---------- | 37.3 | 2,290 |

### MOUNTAIN HOME FEEDER CANAL NEAR MOUNTAIN HOME, IDAHO

LOCATION.—In sec. 36, T. 2 S., R. 6 E., 75 feet below point of diversion in Canyon Creek and 5 miles north of Mountain Home, Elmore County.

RECORDS AVAILABLE.—April 15, 1924, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank; installed March 31, 1925; inspected by James Spofford.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of silt, sand, and fine gravel; shifts somewhat. Control not well defined.

EXTREMES OF DISCHARGE.—Maximum stage recorded, from water-stage recorder, 1.28 feet June 21–23 (discharge, 67 second-feet); canal reported practically dry after July 31 and prior to early spring flow from Canyon Creek.

1924–1926: Maximum stage recorded, 2.24 feet at 2.30 p. m. July 16, 1925 (discharge, 135 second-feet); canal dry for long periods each year.

DIVERSIONS.—None from canal above gage; between gage and head gates of Mountain Home Cooperative Canal, half a mile below, three small laterals divert water for irrigation on Ake farms.

REGULATION.—Flow regulated by head gate in Canyon Creek and by storage in Long Tom Reservoir.

ACCURACY.—Stage-discharge relation not permanent. Rating curve well defined below 65 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method except as indicated in footnote to daily-discharge table. Records good.

COOPERATION.—Gage-height record furnished by Mountain Home Irrigation District.

Water is diverted from Canyon Creek in sec. 36, T. 2 S., R. 6 E., and used for irrigation on about 5,000 acres included in the project of the Mountain Home Irrigation District (formerly Mountain Home Cooperative Irrigation Co.), for which water is delivered by the Mountain Home Cooperative Canal, which heads in the feeder canal half a mile below gage. At times when there is a surplus of water for irrigation, the canal feeds water directly into the Mountain Home Reservoir beyond head gate of the Mountain Home Cooperative Canal.

*Discharge measurements of Mountain Home feeder canal near Mountain Home, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 12 | 0.87 | 28.2 | May 6 | 1.20 | 61 | July 15 | 0.90 | 25.9 |
| Apr. 18 | .78 | 21.6 | June 4 | 1.10 | 48.4 | | | |
| Apr. 30 | .67 | 15.3 | July 2 | 1.26 | 64 | | | |

*Daily discharge, in second-feet, of Mountain Home feeder canal near Mountain Home, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Day | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | 28 | 59 | 62 | 16 | 23 | 59 | 63 | 27 |
| 2 | | 34 | 60 | 62 | 17 | 22 | 62 | 65 | 37 |
| 3 | | 47 | 58 | 53 | 18 | 22 | 63 | 66 | 37 |
| 4 | | 51 | 47 | 52 | 19 | 22 | 62 | 66 | 36 |
| 5 | | 61 | 46 | 47 | 20 | 21 | 63 | 66 | 37 |
| 6 | | 61 | 47 | 46 | 21 | 21 | 63 | 67 | 40 |
| 7 | | 60 | 47 | 38 | 22 | 19 | 63 | 67 | 39 |
| 8 | | 60 | 47 | 38 | 23 | 19 | 62 | 67 | 38 |
| 9 | | 60 | 48 | 37 | 24 | 18 | 63 | 59 | 36 |
| 10 | | 59 | 54 | 35 | 25 | 18 | 63 | 59 | 35 |
| 11 | | 59 | 57 | 29 | 26 | 18 | 63 | 59 | 34 |
| 12 | 27 | 59 | 61 | 27 | 27 | 17 | 62 | 58 | 32 |
| 13 | 26 | 59 | 61 | 27 | 28 | 16 | 61 | 61 | 29 |
| 14 | 26 | 59 | 63 | 26 | 29 | 16 | 61 | 61 | 24 |
| 15 | 24 | 59 | 63 | 26 | 30 | 16 | 60 | 62 | 10 |
| | | | | | 31 | | 59 | | 5 |

NOTE.—Water cut out of canal July 30 and 31; discharge estimated.

*Monthly discharge of Mountain Home feeder canal near Mountain Home, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April 12-30 | 27 | 16 | 20.6 | 776 |
| May | 63 | 28 | 58.2 | 3,580 |
| June | 67 | 46 | 58.8 | 3,500 |
| July | 62 | | 35.5 | 2,180 |
| The period | | | | 10,000 |

NOTE.—Canal reported practically dry after July 31 and prior to early spring flow from Canyon Creek.

**MOUNTAIN HOME COOPERATIVE CANAL NEAR MOUNTAIN HOME, IDAHO**

LOCATION.—In sec. 36, T. 2 S., R. 6 E., at the Lamberton Weir, 250 feet below point of diversion in Mountain Home feeder canal and 4½ miles north of Mountain Home, Elmore County.

RECORDS AVAILABLE.—April 17, 1924, to September 30, 1926.

GAGE.—Vertical staff attached to shelter house on right bank; read by James Spofford.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of silt, sand, and fine gravel. Control formed by 12-foot wooden sharp-crested weir 5 feet below gage.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 1.11 feet June 22 (discharge, 63 second-feet); canal dry after July 30 and prior to about April 1.

1924–1926: Maximum stage recorded, 1.69 feet July 16, 1925 (discharge, 109 second-feet); no flow except during irrigation seasons.

DIVERSIONS.—None between gage and head of canal.

REGULATION.—Flow regulated by gates at head of canal and by operation of gates in Long Tom Reservoir.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined below 80 second-feet. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table except as indicated in footnote to table of daily discharge. Records good, except for estimated periods, for which they are fair.

COOPERATION.—Gage-height record furnished by Mountain Home Irrigation District.

Water is diverted from Canyon Creek in sec. 36, T. 2 S., R. 6 E., through the Mountain Home feeder canal for about half a mile and rediverted through the Mountain Home Cooperative Canal for irrigation on about 5,000 acres of the Mountain Home Irrigation District.

*Discharge measurements of Mountain Home Cooperative Canal near Mountain Home, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 12 | 0.40 | 13.4 | May 6 | 0.95 | 49.4 | July 15 | 0.58 | 23.4 |
| Apr. 18 | .39 | 11.9 | June 4 | .89 | 45.9 | | | |
| Apr. 30 | .28 | 8.0 | July 2 | 1.08 | 60.0 | | | |

*Daily discharge, in second-feet, of Mountain Home Cooperative Canal near Mountain Home, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Day | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | 15 | 56 | 59 | 16 | 13 | 58 | 61 | 26 |
| 2 | | 21 | 56 | 60 | 17 | | 58 | 61 | 35 |
| 3 | | 36 | 56 | 52 | 18 | 12 | 58 | 62 | 35 |
| 4 | | 43 | 45 | 49 | 19 | | 57 | 62 | 35 |
| 5 | | 47 | 44 | 46 | 20 | | 57 | 62 | 35 |
| 6 | | 52 | 43 | 44 | 21 | | 57 | 62 | 35 |
| 7 | | 51 | 43 | 38 | 22 | | 56 | 63 | 36 |
| 8 | | 56 | 43 | 37 | 23 | | 56 | 62 | 34 |
| 9 | | 56 | 43 | 37 | 24 | 10 | 56 | 59 | 34 |
| 10 | | 57 | 51 | 36 | 25 | | 56 | 57 | 31 |
| 11 | | 57 | 52 | 26 | 26 | | 56 | 56 | 30 |
| 12 | 13 | 56 | 57 | 24 | 27 | | 56 | 57 | 27 |
| 13 | 13 | 58 | 58 | 24 | 28 | | 56 | 59 | 24 |
| 14 | | 59 | 61 | 24 | 29 | | 56 | 59 | 17 |
| 15 | | 58 | 62 | 24 | 30 | 8 | 56 | 59 | 5 |
| | | | | | 31 | | 56 | | 0 |

NOTE.—Gage not read Apr. 13–17, 19–29, and May 1; discharge estimated. Braced figures show mean discharge for periods included.

*Monthly discharge of Mountain Home Cooperative Canal near Mountain Home, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April 12–30 | | | 10.9 | 411 |
| May | 59 | 15 | 52.5 | 3,230 |
| June | 63 | 43 | 55.7 | 3,310 |
| July | 60 | 0 | 32.9 | 2,020 |
| The period | | | | 8,970 |

NOTE.—No flow prior to about Apr. 1 and after July 30.

### OWYHEE RIVER NEAR OWYHEE, NEV.

LOCATION.—In sec. 21, T. 46 N., R. 53 E., 40 feet above mouth of Jones Brook, half a mile above J. P. Jones ranch, 4 miles below Mountain City and 8 miles southeast of Owyhee, Elko County.

DRAINAGE AREA.—380 square miles (measured on Forest Service map).

RECORDS AVAILABLE.—November 29, 1913, to July 6, 1926; station destroyed by flood on July 7.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by P. W. Davidson.

DISCHARGE MEASUREMENTS.—Made from cable 125 feet above gage or by wading

CHANNEL AND CONTROL.—Bed consists of ledge rock and boulders filled in with sand and gravel; permanent, except for slight changes at very low stages. One channel at all stages. Banks covered with willows and brush; subject to overflow. At low stages a riffle just below gage forms control; shifts occasionally. At high stages a secondary control becomes effective; practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage for period, 4.42 feet at 11 p. m. April 12 (discharge, 349 second-feet); minimum discharge, 1 second-foot from June 25 to July 6.

1914–1926: Maximum discharge, 2,600 second-feet May 5, 1922; minimum discharge less than 1 second-foot August 5 and 16, 1924.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—A number of ranches above station divert water from main stream and tributaries for irrigation—mainly of hay meadows.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent; affected by ice from December 25 to February 25. Two rating curves well defined. Operation of water-stage recorder good. Daily discharge ascertained by applying mean daily gage height to rating table. Discharge estimated for ice-affected period by study of temperature records and observer's notes. Records good.

The following discharge measurements were made:
October 16, 1925: Gage height, 1.91 feet; discharge, 16.4 second-feet.
May 27, 1926: Gage height, 2.20 feet; discharge, 37.7 second-feet.

*Daily discharge, in second-feet, of Owyhee River near Owyhee, Nev., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13 | 16 | 25 | | | 46 | 85 | 99 | 18 | 1 |
| 2 | 13 | 18 | 35 | | | 57 | 74 | 93 | 15 | 1 |
| 3 | 14 | 20 | 32 | | | 76 | 71 | 88 | 13 | 1 |
| 4 | 14 | 20 | 32 | | | 97 | 76 | 74 | 10 | 1 |
| 5 | 14 | 16 | 33 | | | 118 | 94 | 95 | 9 | 1 |
| 6 | 16 | 16 | 30 | | | 85 | 195 | 106 | 8 | 1 |
| 7 | 20 | 17 | 28 | | | 66 | 284 | 99 | 7 | |
| 8 | 20 | 18 | 23 | | | 67 | 264 | 89 | 7 | |
| 9 | 20 | 20 | 23 | | | 88 | 243 | 80 | 7 | |
| 10 | 19 | 20 | 28 | | | 74 | 215 | 74 | 7 | |
| 11 | 19 | 20 | 31 | | | 56 | 205 | 69 | 7 | |
| 12 | 18 | 20 | 28 | | | 59 | 300 | 68 | 6 | |
| 13 | 19 | 23 | 25 | | 30 | 110 | 293 | 71 | 6 | |
| 14 | 18 | 20 | 35 | | | 218 | 252 | 68 | 5 | |
| 15 | 17 | 20 | 41 | | | 275 | 240 | 62 | 5 | |
| 16 | 17 | 21 | 43 | 25 | | 269 | 240 | 57 | 4 | |
| 17 | 16 | 21 | 36 | | | 282 | 238 | 55 | 4 | |
| 18 | 16 | 20 | 30 | | | 191 | 250 | 55 | 4 | |
| 19 | 15 | 14 | 29 | | | 149 | 253 | 53 | 3 | |
| 20 | 15 | 16 | 27 | | | 148 | 233 | 50 | 3 | |
| 21 | 15 | 20 | 32 | | | 146 | 210 | 47 | 3 | |
| 22 | 15 | 26 | 32 | | | 145 | 195 | 42 | 3 | |
| 23 | 16 | 23 | 28 | | | 170 | 182 | 38 | 2 | |
| 24 | 15 | 24 | 26 | | | 186 | 165 | 40 | 2 | |
| 25 | 16 | 22 | | | | 148 | 151 | 45 | 1 | |
| 26 | 15 | 21 | | | 35 | 118 | 141 | 41 | 1 | |
| 27 | 16 | 20 | 20 | | 36 | 105 | 132 | 38 | 1 | |
| 28 | 15 | 20 | | | 41 | 99 | 121 | 32 | 1 | |
| 29 | 16 | 19 | | | | 82 | 112 | 28 | 1 | |
| 30 | 15 | 23 | | | | 88 | 104 | 24 | 1 | |
| 31 | 16 | | | | | 91 | | 22 | | |

*Monthly discharge of Owyhee River near Owyhee, Nev., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 20 | 13 | 16.2 | 996 |
| November | 26 | 14 | 19.8 | 1,180 |
| December | 43 | | 28.1 | 1,730 |
| January | | | 25 | 1,540 |
| February | 41 | | 30.8 | 1,710 |
| March | 282 | 46 | 126 | 7,750 |
| April | 300 | 71 | 187 | 11,100 |
| May | 106 | 22 | 61.4 | 3,780 |
| June | 18 | 1 | 5.5 | 327 |
| July 1–7 | 1 | 1 | 1.0 | 12 |
| The period | | | | 30,100 |

OWYHEE RIVER NEAR OWYHEE, OREG.

LOCATION.—In sec. 2, T. 21 S., R. 46 E., at county bridge 1½ miles southwest of Owyhee, Malheur County, 3 miles above mouth of river, and 10 miles southwest of Nyssa.

DRAINAGE AREA.—About 11,100 square miles. Watershed poorly defined on available maps.

RECORDS AVAILABLE.—March 26, 1890, to December 31, 1893; January 1, 1895, to October 3, 1896; August 28, 1903, to September 30, 1916; May 17 to October 9, 1920; March 8, 1921, to September 30, 1926.

GAGE.—Chain gage on upstream side of highway bridge; read by Walter Pinkston or Violet Pinkston.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel; may shift during high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.2 feet in the morning of February 9 (discharge, 6,220 second-feet); no flow July 5 and 6.

1890–1893, 1895–1896, 1903–1916, 1920–1926: Maximum stage recorded, 12.9 feet March 2, 1910 (discharge, 23,200 second-feet); no flow July 7, 19, August 14–16, 1924, and July 5–6, 1926.

ICE.—Stage-discharge relation affected by ice January 4, 5, and 8–19.

DIVERSIONS.—Owyhee Canal, the principal diversion immediately above station, heads about 6 miles above gage. This canal diverts practically entire natural low-water flow of river. (See p. 155.)

REGULATION.—Variation in the flow may be caused by manipulation of gates at head of Owyhee Canal.

ACCURACY.—Stage-discharge relation permanent. Rating curve fairly well defined. Staff gage read to half-tenths once daily. Daily discharge ascertained by applying daily gage height to rating table except as stated in footnote to daily-discharge table. Records good.

The following discharge measurements were made:

March 26, 1926: Gage height, 4.45 feet; discharge, 1,460 second-feet.

June 24, 1926: Gage height, 1.60 feet; discharge, 4 second-feet.

September 30, 1926: Gage height, 2.01 feet; discharge, 18.8 second-feet.

*Daily discharge, in second-feet, of Owyhee River near Owyhee, Oreg., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 77 | 67 | 862 | 250 | 980 | 980 | 518 | 305 | 8 | 4 | 4 | 6 |
| 2 | 88 | 67 | 862 | 250 | 825 | 1,250 | 518 | 250 | 8 | 3 | 4 | 9 |
| 3 | 88 | 67 | 862 | 226 | 825 | 1,660 | 550 | 202 | 8 | 2 | 4 | 9 |
| 4 | 88 | 57 | 648 | 226 | 862 | 2,010 | 550 | 182 | 8 | 2 | 5 | 9 |
| 5 | 100 | 57 | 648 | 226 | 4,300 | 1,890 | 550 | 202 | 6 | 0 | 4 | 9 |
| 6 | 161 | 57 | 615 | 226 | 3,500 | 1,660 | 550 | 202 | 13 | 0 | 2 | 9 |
| 7 | 77 | 57 | 550 | 226 | 3,150 | 1,660 | 550 | 305 | 13 | 2 | 2 | 9 |
| 8 | 161 | 67 | 518 | | 3,700 | 1,770 | 1,160 | 305 | 6 | 1 | 2 | 9 |
| 9 | 100 | 77 | 455 | | 5,960 | 1,770 | 1,890 | 250 | 6 | 2 | 4 | 9 |
| 10 | 100 | 77 | 365 | | 5,200 | 1,770 | 2,380 | 202 | 6 | 2 | 4 | 9 |
| 11 | 100 | 77 | 365 | | 5,200 | 1,770 | 2,380 | 161 | 6 | 2 | 4 | 9 |
| 12 | 100 | 77 | 335 | | 4,960 | 1,770 | 2,010 | 128 | 9 | 4 | 2 | 9 |
| 13 | 100 | 77 | 335 | | 3,500 | 1,770 | 1,660 | 128 | 6 | 6 | 4 | 47 |
| 14 | 77 | 88 | 305 | 15 | 2,130 | 2,010 | 1,550 | 114 | 5 | 6 | 4 | 122 |
| 15 | 128 | 88 | 250 | | 1,770 | 2,010 | 1,550 | 100 | 5 | 6 | 6 | 122 |
| 16 | 226 | 100 | 250 | | 1,660 | 3,320 | 1,550 | 88 | 4 | 5 | 9 | 122 |
| 17 | 226 | 100 | 226 | | 1,450 | 4,100 | 1,350 | 67 | 4 | 4 | 13 | 49 |
| 18 | 128 | 100 | 226 | | 1,160 | 4,740 | 1,250 | 57 | 4 | 2 | 18 | 13 |
| 19 | 114 | 100 | 182 | | 900 | 3,700 | 1,160 | 48 | 3 | 2 | 9 | |
| 20 | 114 | 100 | 182 | 202 | 615 | 2,660 | 980 | 48 | 2 | 2 | 9 | |
| 21 | 114 | 100 | 182 | 202 | 615 | 1,890 | 900 | 34 | 4 | 4 | 9 | |
| 22 | 100 | 100 | 250 | 202 | 582 | 1,770 | 788 | 27 | 4 | 4 | 9 | |
| 23 | 100 | 100 | 250 | 202 | 582 | 1,450 | 680 | 27 | 3 | 4 | 9 | |
| 24 | 114 | 100 | 250 | 202 | 550 | 1,250 | 615 | 27 | 6 | 2 | 9 | 16 |
| 25 | 100 | 114 | 250 | 202 | 550 | 1,160 | 550 | 16 | 4 | 2 | 6 | |
| 26 | 100 | 114 | 278 | 202 | 582 | 1,250 | 485 | 13 | 4 | 4 | 4 | |
| 27 | 88 | 114 | 278 | 202 | 582 | 980 | 455 | 13 | 2 | 6 | 4 | |
| 28 | 88 | 114 | 278 | 202 | 615 | 485 | 425 | 9 | 4 | 4 | 4 | |
| 29 | 88 | 114 | 250 | 250 | ------- | 305 | 365 | 9 | 2 | 2 | 4 | |
| 30 | 77 | 114 | 250 | 2,250 | ------- | 485 | 305 | 9 | 4 | 6 | 4 | 19 |
| 31 | 77 | ------- | 250 | 1,350 | ------- | 485 | ------- | 8 | ------- | 5 | 4 | ------ |

NOTE.—Gage-height record in error Sept. 12–17; discharge estimated from record for Owyhee Canal. Gage-height record missing Sept. 19–29; mean discharge interpolated.

*Monthly discharge of Owyhee River near Owyhee, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 226 | 77 | 110 | 6,760 |
| November | 114 | 57 | 88 | 5,240 |
| December | 862 | 182 | 381 | 23,400 |
| January | 2,250 | 202 | 319 | 19,600 |
| February | 5,960 | 550 | 2,050 | 114,000 |
| March | 4,740 | 305 | 1,800 | 111,000 |
| April | 2,380 | 305 | 1,010 | 60,100 |
| May | 305 | 8 | 114 | 7,010 |
| June | 13 | 2 | 5.6 | 333 |
| July | 6 | 0 | 3.2 | 197 |
| August | 18 | 2 | 5.8 | 357 |
| September | 122 | 6 | 25.8 | 1,540 |
| The year | 5,960 | 0 | 482 | 350,000 |

### OWYHEE CANAL NEAR OWYHEE, OREG.

LOCATION.—Subsequent to April 10, 1926, in SE. ¼ sec. 31, T. 20 S., R. 46 E., 2 miles below head of canal, 5 miles southwest of Owyhee, Malheur County, and 14 miles southwest of Nyssa. Prior to April 10, 1 mile upstream in NE. ¼ sec. 12, T. 21 S., R. 45 E.

RECORDS AVAILABLE.—October 5, 1911, to September 30, 1916; irrigation seasons 1904, 1905, and 1920 to 1926.

GAGE.—Stevens 8-day water-stage recorder on right bank, 100 feet below check and waste gate in canal; inspected by W. H. Beam.

DISCHARGE MEASUREMENTS.—Made from cable 50 feet below gage.

CHANNEL AND CONTROL.—Bed clean and smooth. Control practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.80 feet at 2 a. m. May 9 (discharge, 296 second-feet); canal dry at times.

1904–5, 1911–1916, 1920–1926: Maximum stage recorded, 4.3 feet May 17, 1921, and May 10–11, 1922 (discharge, 333 second-feet); canal dry at various times each year.

ICE.—No record during winter.

DIVERSIONS.—Station above all diversions from canal; surplus water is returned to Owyhee River through one wasteway between this station and the station on the river near Owyhee.

REGULATION.—Abrupt changes of stage due to manipulation of head gates not to be expected, as water is kept at nearly constant stage.

ACCURACY.—Stage-discharge relation permanent. Rating curve fairly well defined between 75 and 260 second-feet. Operation of water-stage recorder satisfactory beginning April 10. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph. Records good.

COOPERATION.—Record furnished by State engineer of Oregon.

Owyhee Canal diverts water from Owyhee River in sec. 18, T. 21 S., R. 46 E. In 1920 it supplied water for irrigation to 13,397 acres of land near Owyhee, Nyssa, and Ontario.

*Discharge measurements of Owyhee Canal near Owyhee, Oreg., during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 22 | 3.46 | 248 | June 23 | 2.24 | 110 | Aug. 31 | 1.90 | 96 |
| May 19 | 3.26 | 249 | June 24 | 2.25 | 122 | Sept. 30 | 2.30 | 122 |

*Daily discharge, in second-feet, of Owyhee Canal near Owyhee, Oreg., for the year ending September 30, 1926*

| Day | Oct. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 1 | | | 261 | 199 | 109 | 102 | 95 |
| 2 | | | 254 | 193 | 105 | 109 | 95 |
| 3 | | | 248 | 199 | 95 | 105 | 95 |
| 4 | | | 241 | 188 | 98 | 105 | 105 |
| 5 | | | 241 | 177 | 98 | 105 | 109 |
| 6 | 100 | | 229 | 172 | 95 | 105 | 113 |
| 7 | | | 235 | 172 | 109 | 105 | 117 |
| 8 | | | 261 | 167 | 102 | 102 | 113 |
| 9 | | | 296 | 162 | 102 | 95 | 113 |
| 10 | | 0 | 275 | 167 | 102 | 95 | 105 |

*Daily discharge, in second-feet, of Owyhee Canal near Owyhee, Oreg., for the year ending September 30, 1926*—Continued

| Day | Oct. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 11 | 113 | 200 | 254 | 152 | 102 | 98 | 113 |
| 12 | 113 | 200 | 254 | 152 | 102 | 98 | 113 |
| 13 | 109 | 211 | 241 | 147 | 102 | 102 | 75 |
| 14 | 144 | 211 | 241 | 142 | 102 | 102 | 0 |
| 15 | 153 | 211 | 241 | 138 | 102 | 102 | 0 |
| 16 | 109 | 217 | 254 | 138 | 102 | 95 | 0 |
| 17 | 109 | 217 | 248 | 125 | 102 | 95 | 73 |
| 18 | | 217 | 235 | 125 | 105 | 102 | 109 |
| 19 | | 235 | 229 | 125 | 105 | 105 | 117 |
| 20 | 111 | 261 | 217 | 125 | 105 | 98 | 109 |
| 21 | | 254 | 217 | 125 | 109 | 102 | 121 |
| 22 | 113 | 254 | 205 | 121 | 109 | 102 | 117 |
| 23 | 113 | 254 | 205 | 125 | 117 | 102 | 121 |
| 24 | 109 | 261 | 217 | 121 | 117 | 102 | 121 |
| 25 | 109 | 275 | 235 | 121 | 117 | 102 | 121 |
| 26 | 109 | 261 | 229 | 109 | 113 | 102 | 121 |
| 27 | 113 | 248 | 229 | 109 | 113 | 102 | 121 |
| 28 | 109 | 248 | 229 | 109 | 113 | 102 | 121 |
| 29 | | 229 | 223 | 109 | 109 | 95 | 125 |
| 30 | 105 | 241 | 217 | 109 | 109 | 98 | 125 |
| 31 | | ------- | 211 | ------- | 113 | 98 | ------- |

NOTE.—No gage-height record April 11 and 12; discharge estimated. Braced figures show mean discharge for periods indicated. Some water may have been run for stock during winter; water turned in for irrigation Apr. 11.

*Monthly discharge of Owyhee Canal near Owyhee, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 153 | ---------- | 109 | 6,700 |
| April | 275 | 0 | 157 | 9,340 |
| May | 296 | 205 | 237 | 14,600 |
| June | 199 | 109 | 144 | 8,570 |
| July | 117 | 95 | 106 | 6,520 |
| August | 109 | 95 | 101 | 6,210 |
| September | 125 | 0 | 99.4 | 5,910 |

### BOISE RIVER NEAR TWIN SPRINGS, IDAHO

LOCATION.—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, Boise County, and 13 miles above Arrowrock.

DRAINAGE AREA.—830 square miles (measured on topographic maps).

RECORDS AVAILABLE.—March 22, 1911, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank; installed April 4, 1915; inspected by John Pfoser.

DISCHARGE MEASUREMENTS.—Made from cable 50 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders. Control practically permanent, except under unusually severe ice or flood conditions. Banks are not overflowed.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 5.29 feet at 3 a. m. May 5 (discharge, 4,250 second-feet); minimum stage recorded, 1.75 feet at 1 p. m. December 31 (discharge, 205 second-feet).

1911–1926: Maximum stage recorded, 7.82 feet at 3 a. m. May 15, 1917 (discharge, 9,430 second-feet); minimum stage, 1.73 feet at 10.30 p. m. November 13, 1916 (discharge, about 142 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—No important diversions above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined between 250 and 7,500 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph except as indicated in footnote to daily-discharge table. Records good except those estimated, which are fair.

*Discharge measurements of Boise River near Twin Springs, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 21 | 2.11 | 353 | Apr. 15 | 3.78 | 1,880 | June 8 | 3.29 | 1,410 |
| Oct. 23 | 2.10 | 378 | Apr. 23 | 3.76 | 1,920 | July 7 | 2.20 | 431 |
| Feb. 18 | 2.11 | 385 | Do | 3.74 | 1,890 | | | |

*Daily discharge, in second-feet, of Boise River near Twin Springs, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 375 | 375 | 442 | 295 | 353 | 448 | 648 | 2,540 | 1,430 | 503 | 248 | 290 |
| 2 | | 386 | 901 | 454 | 336 | 496 | 583 | 2,400 | 1,440 | 472 | 248 | 280 |
| 3 | 386 | 392 | 655 | 529 | 326 | 562 | 632 | 2,330 | 1,390 | 448 | 256 | 266 |
| 4 | 375 | 348 | 522 | 402 | 336 | 640 | 618 | 2,470 | 1,390 | 436 | 252 | 266 |
| 5 | | 326 | 478 | 375 | 320 | 678 | 670 | 3,640 | 1,420 | 430 | 238 | 256 |
| 6 | | 336 | 454 | 442 | 380 | 632 | 772 | 2,840 | 1,420 | 442 | 238 | 252 |
| 7 | | 342 | 414 | 386 | 503 | 597 | 910 | 2,330 | 1,360 | 436 | 248 | 256 |
| 8 | | 336 | 380 | 331 | 536 | 597 | 1,040 | 2,070 | 1,320 | 542 | 261 | 256 |
| 9 | 425 | 380 | 364 | 326 | 536 | 632 | 1,180 | 1,820 | 1,190 | 496 | 266 | 256 |
| 10 | | 392 | 358 | 353 | 510 | 618 | 1,210 | 1,640 | 1,080 | 442 | 248 | 256 |
| 11 | | 392 | 392 | 392 | 490 | 611 | 1,240 | 1,500 | 993 | 414 | 248 | 248 |
| 12 | 542 | 397 | 424 | 342 | 454 | 632 | 1,340 | 1,460 | 928 | 402 | 238 | 243 |
| 13 | 496 | 375 | 430 | 386 | 430 | 655 | 1,520 | 1,430 | 883 | 386 | 234 | 238 |
| 14 | 442 | 326 | 305 | 380 | 392 | 764 | 1,700 | 1,470 | 831 | 364 | 234 | 234 |
| 15 | 419 | 326 | 336 | 454 | 386 | 883 | 1,940 | 1,570 | 806 | 353 | 234 | 238 |
| 16 | 408 | 392 | 424 | 436 | 408 | 1,030 | 2,260 | 1,700 | 788 | 342 | 230 | 243 |
| 17 | 397 | 386 | 392 | 436 | 397 | 1,070 | 2,470 | 1,760 | 732 | 336 | 230 | 256 |
| 18 | 392 | 364 | 397 | 419 | 375 | 955 | 2,680 | 1,820 | 692 | 320 | 310 | 256 |
| 19 | 386 | 315 | 392 | 364 | 364 | 901 | 2,840 | 1,940 | 740 | 315 | 460 | 252 |
| 20 | 380 | 285 | 353 | 331 | 386 | 901 | 2,610 | 2,330 | 724 | 310 | 353 | 248 |
| 21 | 380 | 290 | 364 | 370 | 392 | 874 | 2,330 | 2,260 | 655 | 305 | 300 | 248 |
| 22 | 375 | 290 | 386 | 375 | 380 | 892 | 2,140 | 2,140 | 611 | 305 | 280 | 252 |
| 23 | 375 | 300 | 402 | 353 | 370 | 1,030 | 1,880 | 2,140 | 597 | 300 | 261 | 256 |
| 24 | 370 | 370 | 414 | 358 | 375 | 1,070 | 1,760 | 2,070 | 576 | 300 | 252 | 261 |
| 25 | | 466 | 375 | 364 | 370 | 993 | 1,700 | 1,820 | 569 | 290 | 243 | 261 |
| 26 | | 436 | 348 | 305 | 364 | 892 | 1,880 | 1,580 | 542 | 280 | 238 | 266 |
| 27 | 370 | 402 | 305 | 285 | 375 | 814 | 2,070 | 1,470 | 529 | 275 | 252 | 266 |
| 28 | | 386 | 280 | 331 | 414 | 764 | 2,200 | 1,480 | 516 | 270 | 248 | 266 |
| 29 | | 386 | 252 | 454 | ------- | 685 | 2,400 | 1,490 | 496 | 270 | 238 | 266 |
| 30 | | 402 | 238 | 424 | ------- | 685 | 2,610 | 1,540 | 484 | 266 | 243 | 290 |
| 31 | 375 | ------- | 234 | 364 | ------- | 678 | ------- | 1,490 | ------- | 256 | 290 | ------ |

NOTE.—Water-stage recorder not operating Oct. 1, 2, 4–11, 25–30; discharge estimated. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Boise River near Twin Springs, Idaho, for the year ending September 30, 1926*

[Drainage area, 830 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 542 | ---------- | 400 | 0.482 | 0.56 | 24,600 |
| November | 466 | 285 | 363 | .437 | .49 | 21,600 |
| December | 901 | 234 | 400 | .482 | .56 | 24,600 |
| January | 529 | 285 | 381 | .459 | .53 | 23,400 |
| February | 536 | 320 | 402 | .484 | .50 | 22,300 |
| March | 1,070 | 448 | 764 | .920 | 1.06 | 47,000 |
| April | 2,840 | 583 | 1,660 | 2.00 | 2.23 | 98,800 |
| May | 3,640 | 1,430 | 1,950 | 2.35 | 2.71 | 120,000 |
| June | 1,440 | 484 | 904 | 1.09 | 1.22 | 53,800 |
| July | 542 | 256 | 365 | .440 | .51 | 22,400 |
| August | 460 | 230 | 262 | .316 | .36 | 16,100 |
| September | 290 | 234 | 257 | .310 | .35 | 15,300 |
| The year | 3,640 | 230 | 677 | .816 | 11.08 | 490,000 |

### ARROWROCK RESERVOIR AT ARROWROCK, IDAHO

LOCATION.—In E. ½ sec. 13, T. 3 N., R. 4 E., at Arrowrock, Boise County, 22 miles by road east from Boise.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—October 1, 1917, to September 30, 1926.

GAGE.—Graduations painted on center of upstream vertical face of concrete dam in September, 1917; read usually to tenths once daily by E. L. Ballard, superintendent of Arrowrock Dam. Gage set to read sea-level datum.

EXTREMES OF CONTENTS.—Maximum stage recorded during year, 3,198.8 feet May 25, 26 (contents, 241,900 acre-feet); natural flow passing through reservoir September 16–30.

1918–1926: Maximum stage recorded, 3,214.2 feet May 19–20, 1925 (contents, 286,100 acre-feet); natural flow passing through reservoir, September 13–17, September 20 to October 1, 1919, September 13 to October 10, 1920, September 19 to October 22, 1922, August 19 to October 15, 1924, and September 16–30, 1926.

COOPERATION.—Gage-height record and table of storage capacity furnished by United States Bureau of Reclamation.

Stored water from this reservoir is used for irrigation of land in Boise Valley. Elevation of spillway crest referred to gage datum is 3,205 feet, the capacity of the reservoir at that stage being 259,000 acre-feet. A movable crest is provided for the spillway, the top of which is at elevation 3,211 feet. The capacity of the reservoir at that stage is 276,500 acre-feet, and about 2,900 acres of land is submerged.

*Daily contents, in acre-feet, of Arrowrock Reservoir at Arrowrock, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14,910 | 16,970 | 17,590 | 12,400 | 45,900 | 38,430 | 119,700 | 217,500 | 239,800 | 159,400 | 65,330 | 20,940 |
| 2 | 13,880 | 17,320 | 17,320 | 13,030 | 46,800 | 38,030 | 120,100 | 219,500 | 239,300 | 155,600 | 62,600 | 20,840 |
| 3 | 12,890 | 18,000 | 18,840 | 14,140 | 47,500 | 37,780 | 120,600 | 221,300 | 239,000 | 151,600 | 59,640 | 20,680 |
| 4 | 11,920 | 17,320 | 18,840 | 15,300 | 48,100 | 37,780 | 121,500 | 222,600 | 238,200 | 147,800 | 57,360 | 20,420 |
| 5 | 11,260 | 16,450 | 18,700 | 16,490 | 48,400 | 38,350 | 124,200 | 225,800 | 237,200 | 144,000 | 54,840 | 20,270 |
| 6 | 10,780 | 15,820 | 18,370 | 17,720 | 48,400 | 39,000 | 124,400 | 232,000 | 236,000 | 140,200 | 52,460 | 20,020 |
| 7 | 10,940 | 16,030 | 17,820 | 19,130 | 49,930 | 39,450 | 126,200 | 235,600 | 234,700 | 136,600 | 50,150 | 18,510 |
| 8 | 10,680 | 17,100 | 17,140 | 20,320 | 50,920 | 40,260 | 128,700 | 237,700 | 233,000 | 133,000 | 47,900 | 16,840 |
| 9 | 10,360 | 16,450 | 16,240 | 21,360 | 51,470 | 40,980 | 132,000 | 239,300 | 231,500 | 129,900 | 46,100 | 15,180 |
| 10 | 10,040 | 16,880 | 15,220 | 22,270 | 51,800 | 43,500 | 136,000 | 240,300 | 229,400 | 127,200 | 44,300 | 13,580 |

*Daily contents, in acre-feet, of Arrowrock Reservoir at Arrowrock, Idaho, for the year ending September 30, 1906*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 9,050 | 17,770 | 14,170 | 23,380 | 52,020 | 46,500 | 140,000 | 240,600 | 226,800 | 124,500 | 42,330 | 11,850 |
| 12 | 8,750 | 18,280 | 13,320 | 24,530 | 52,020 | 49,160 | 144,000 | 240,300 | 223,700 | 121,900 | 40,440 | 9,887 |
| 13 | 8,460 | 19,080 | 12,540 | 25,560 | 51,690 | 52,130 | 148,200 | 239,500 | 220,600 | 119,500 | 38,510 | 7,722 |
| 14 | 7,890 | 19,720 | 11,590 | 26,510 | 51,030 | 56,160 | 153,500 | 238,500 | 217,200 | 116,600 | 36,410 | 4,855 |
| 15 | 7,610 | 20,170 | 9,887 | 27,620 | 50,260 | 60,650 | 158,600 | 237,700 | 214,200 | 113,900 | 34,500 | 2,035 |
| 16 | 8,870 | 20,730 | 9,887 | 28,770 | 49,380 | 65,850 | 164,400 | 236,900 | 211,000 | 111,600 | 32,280 | ------- |
| 17 | 9,763 | 21,460 | 10,170 | 30,100 | 48,500 | 71,700 | 171,400 | 236,700 | 207,800 | 109,800 | 30,030 | ------- |
| 18 | 10,200 | 22,110 | 10,270 | 31,330 | 47,700 | 76,780 | 179,000 | 236,700 | 204,800 | 107,600 | 27,890 | ------- |
| 19 | 10,940 | 22,660 | 10,490 | 32,350 | 46,800 | 81,500 | 186,200 | 237,100 | 201,500 | 105,400 | 26,130 | ------- |
| 20 | 11,590 | 23,040 | 10,490 | 33,330 | 45,900 | 86,000 | 193,400 | 237,700 | 198,300 | 102,500 | 24,650 | ------- |
| 21 | 12,020 | 23,380 | 10,490 | 34,260 | 45,000 | 90,380 | 199,300 | 239,300 | 195,000 | 99,240 | 24,530 | ------- |
| 22 | 12,580 | 23,720 | 10,490 | 35,130 | 44,100 | 94,860 | 203,400 | 240,300 | 191,700 | 96,010 | 24,360 | ------- |
| 23 | 12,960 | 23,040 | 10,490 | 36,010 | 43,230 | 99,750 | 206,000 | 240,800 | 188,300 | 92,940 | 24,180 | ------- |
| 24 | 13,320 | 22,380 | 10,620 | 36,980 | 42,420 | 104,800 | 207,500 | 241,400 | 184,400 | 89,740 | 23,440 | ------- |
| 25 | 13,690 | 21,890 | 10,780 | 38,190 | 41,610 | 109,400 | 208,200 | 241,900 | 180,800 | 86,750 | 22,710 | ------- |
| 26 | 14,210 | 21,200 | 10,650 | 39,180 | 40,710 | 112,000 | 209,000 | 241,900 | 177,300 | 83,750 | 22,110 | ------- |
| 27 | 14,640 | 20,580 | 10,490 | 40,080 | 39,900 | 114,300 | 210,200 | 241,500 | 174,200 | 80,600 | 21,840 | ------- |
| 28 | 14,990 | 19,770 | 10,200 | 40,980 | 39,000 | 116,100 | 211,200 | 240,800 | 170,500 | 77,480 | 21,620 | ------- |
| 29 | 15,380 | 19,180 | 9,825 | 42,060 | ------- | 117,500 | 213,000 | 240,800 | 167,000 | 74,400 | 21,310 | ------- |
| 30 | 16,030 | 18,320 | 10,940 | 43,500 | ------- | 118,400 | 215,000 | 240,300 | 163,200 | 71,310 | 21,150 | ------- |
| 31 | 16,620 | ------- | 11,690 | 44,800 | ------- | 119,000 | ------- | 240,300 | ------- | 68,320 | 20,990 | ------- |

NOTE.—Natural flow passing through reservoir Sept. 16–30.

### BOISE RIVER AT DOWLING RANCH, NEAR ARROWROCK, IDAHO

LOCATION.—In sec. 15, T. 3 N., R. 4 E., at Dowling ranch, Elmore County, three-fourths mile above Moore Creek, 2 miles below Highland power dam, and 4 miles below Arrowrock.

DRAINAGE AREA.—2,230 square miles (measured on topographic maps).

RECORDS AVAILABLE.—March 12, 1911, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank; installed March 19, 1915; inspected by J. N. Davis.

DISCHARGE MEASUREMENTS.—Made from cable 50 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders. One channel at all stages. Control shifts slightly.

EXTREMES OF DISCHARGE.—Maximum stage recorded, from water-stage recorder, 5.24 feet at 3 p. m. May 2 (discharge, 4,090 second-feet); minimum estimated discharge, 10 second-feet March 10–22.

1911–1926: Maximum stage recorded, 9.27 feet noon to 4 p. m. June 12, 1921 (discharge, 16,500 second-feet); minimum estimated discharge, 5 second-feet November 2–10, December 21 to January 6, and March 26–29, 1925.

ICE.—Stage-discharge relation affected by ice during severe winters.

DIVERSIONS.—No important diversions above station. New York Canal of Boise project, United States Bureau of Reclamation, diverts about 10 miles downstream and has a maximum capacity of 2,500 second-feet. Several smaller canals, total capacity of about 2,900 second-feet, divert below New York Canal.

REGULATION.—Since February 21, 1915, flow has been regulated by storage in Arrowrock Reservoir, 4 miles upstream, which has capacity of about 280,000 acre-feet. Water is stored during winter and spring and released during irrigation season.

ACCURACY.—Stage-discharge relation changed frequently during year. Rating curve, well defined below 13,000 second-feet, and curves parallel thereto used. Operation of water-stage recorder satisfactory except for short period water was below intake pipe. Daily discharge from May 10 to August 15 ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph, and from October 1 to May 9 and August 16 to September 30 by shifting-control method. Records good.

COOPERATION.—Several discharge measurements furnished by United States Bureau of Reclamation, Board of Control for Boise project, and water master for Boise River.

*Discharge measurements of Boise River at Dowling ranch, near Arrowrock, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 10 | 3.16 | 967 | Apr. 14 | 3.26 | 1,070 | June 8 | 4.78 | 3,200 |
| Oct. 22 | 2.62 | 548 | Apr. 27 | 5.04 | 3,520 | June 22 | 4.68 | 2,980 |
| Nov. 20 | 2.48 | 500 | Do | 5.04 | 3,640 | July 7 | 4.44 | 2,590 |
| Jan. 30 | 1.40 | 81 | Do | 5.04 | 3,630 | July 15 | 4.03 | 1,960 |
| Do | 1.40 | 92 | May 12 | 4.87 | 3,250 | Aug. 13 | 3.65 | 1,490 |
| Feb. 27 | 3.49 | 1,310 | May 19 | 4.86 | 3,200 | Aug. 21 | 2.61 | 587 |
| Do | 3.49 | 1,280 | May 24 | 4.88 | 3,330 | Aug. 27 | 2.59 | 540 |
| Mar. 17 | .81 | [a] 20.0 | June 1 | 4.58 | 2,770 | Sept. 30 | 2.51 | 542 |
| Apr. 6 | 3.06 | 925 | | | | | | |

[a] Estimated.

*Daily discharge, in second-feet, of Boise River at Dowling ranch, near Arrowrock, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,300 | 516 | 1,270 | 146 | 148 | 1,300 | 1,290 | 3,880 | 2,820 | 2,820 | 1,820 | 511 |
| 2 | 1,280 | 528 | 1,290 | 160 | 285 | 1,280 | 1,290 | 3,880 | 2,740 | 2,820 | 1,820 | 533 |
| 3 | 1,200 | 860 | 1,340 | 171 | 422 | 1,240 | 1,120 | 3,990 | 2,820 | 2,820 | 1,760 | 555 |
| 4 | 1,140 | 1,100 | 1,270 | 177 | 672 | 1,190 | 988 | 3,880 | 2,900 | 2,740 | 1,700 | 555 |
| 5 | 1,080 | 1,060 | 1,230 | 162 | 878 | 1,140 | 960 | 3,500 | 2,980 | 2,660 | 1,640 | 544 |
| 6 | 1,060 | 743 | 1,250 | 143 | 941 | 1,120 | 878 | 3,320 | 3,060 | 2,660 | 1,640 | 965 |
| 7 | 1,100 | 480 | 1,270 | 130 | 932 | 950 | 914 | 3,140 | 3,140 | 2,590 | 1,640 | 1,280 |
| 8 | 1,080 | 257 | 1,290 | 140 | 923 | 950 | 941 | 3,060 | 3,140 | 2,520 | 1,460 | 1,280 |
| 9 | 1,040 | 932 | 1,330 | 151 | 932 | 385 | 751 | 2,980 | 3,140 | 2,300 | 1,460 | 1,270 |
| 10 | 1,100 | 528 | 1,330 | 138 | 1,040 | | 680 | 2,980 | 3,140 | 2,160 | 1,460 | 1,230 |
| 11 | 1,140 | 538 | 1,310 | 120 | 1,080 | | 695 | 2,980 | 3,140 | 2,090 | 1,460 | 1,260 |
| 12 | 1,200 | 485 | 1,310 | 104 | 1,140 | | 703 | 3,230 | 3,230 | 2,020 | 1,520 | 1,250 |
| 13 | 1,330 | 450 | 1,330 | 118 | 1,190 | | 727 | 3,230 | 3,140 | 2,090 | 1,520 | 1,410 |
| 14 | 1,140 | 455 | 1,340 | 122 | 1,210 | | 950 | 3,230 | 3,060 | 2,090 | 1,520 | 1,460 |
| 15 | 600 | 465 | 941 | 122 | 1,250 | | 1,180 | 3,230 | 2,980 | 1,890 | 1,460 | 1,220 |
| 16 | 522 | 470 | 751 | 135 | 1,280 | 10 | 1,240 | 3,320 | 2,980 | 1,700 | 1,580 | 511 |
| 17 | 600 | 485 | 775 | 146 | 1,280 | | 1,220 | 3,230 | 2,900 | 1,700 | 1,580 | 522 |
| 18 | 568 | 495 | 792 | 168 | 1,300 | | 1,460 | 3,230 | 2,900 | 1,760 | 1,520 | 528 |
| 19 | 522 | 500 | 809 | 187 | 1,320 | | 1,700 | 3,230 | 2,900 | 1,960 | 1,520 | 516 |
| 20 | 550 | 506 | 809 | 196 | 1,320 | | 2,090 | 3,320 | 2,980 | 2,090 | 923 | 516 |
| 21 | 568 | 511 | 800 | 174 | 1,320 | | 2,440 | 3,400 | 2,900 | 2,160 | 607 | 516 |
| 22 | 555 | 635 | 792 | 162 | 1,310 | | 2,820 | 3,500 | 2,900 | 2,090 | 614 | 511 |
| 23 | 538 | 960 | 792 | 160 | 1,320 | 130 | 3,060 | 3,500 | 2,980 | 2,090 | 751 | 511 |
| 24 | 562 | 1,140 | 800 | 143 | 1,330 | 403 | 3,140 | 3,400 | 2,900 | 2,020 | 878 | 516 |
| 25 | 555 | 1,210 | 818 | 157 | 1,320 | 688 | 3,320 | 3,230 | 2,820 | 2,020 | 775 | 516 |
| 26 | 568 | 1,270 | 818 | 165 | 1,320 | 878 | 3,320 | 3,060 | 2,740 | 2,020 | 620 | 516 |
| 27 | 555 | 1,280 | 792 | 184 | 1,310 | 988 | 3,500 | 2,980 | 2,740 | 2,020 | 538 | 528 |
| 28 | 555 | 1,260 | 759 | 180 | 1,300 | 1,040 | 3,680 | 2,900 | 2,740 | 2,020 | 555 | 522 |
| 29 | 562 | 1,270 | 372 | 120 | ------- | 1,140 | 3,680 | 2,900 | 2,820 | 2,090 | 533 | 533 |
| 30 | 533 | 1,270 | 138 | 100 | ------- | 1,270 | 3,780 | 2,900 | 2,820 | 2,090 | 500 | 550 |
| 31 | 511 | ------- | 140 | 113 | ------- | 1,260 | ------- | 2,900 | ------- | 1,960 | 480 | ------ |

NOTE.—Stage below intake pipe Mar. 9–23. Braced figure shows estimated mean discharge for period indicated.

*Monthly discharge of Boise River at Dowling ranch, near Arrowrock, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 1,330 | 511 | 826 | 50,800 |
| November | 1,280 | 257 | 755 | 44,900 |
| December | 1,340 | 138 | 970 | 59,600 |
| January | 196 | 100 | 148 | 9,100 |
| February | 1,330 | 148 | 1,070 | 59,400 |
| March | 1,300 | ---------- | 564 | 34,700 |
| April | 3,780 | 680 | 1,820 | 108,000 |
| May | 3,990 | 2,900 | 3,270 | 201,000 |
| June | 3,230 | 2,740 | 2,950 | 176,000 |
| July | 2,820 | 1,700 | 2,200 | 135,000 |
| August | 1,820 | 480 | 1,220 | 75,000 |
| September | 1,460 | 511 | 769 | 45,800 |
| The year | 3,990 | ---------- | 1,380 | 999,000 |

### BOISE RIVER AT NOTUS, IDAHO

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

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 1, 1920, to September 30, 1926.

GAGE.—Vertical staff bolted to center tubular steel pier on upstream side of highway bridge, reinstalled March 16, 1925; read by Mrs. Ida B. Mansell.

DISCHARGE MEASUREMENTS.—Made from highway bridge at gage or by wading.

CHANNEL AND CONTROL.—Bed composed of clean gravel and cobbles. One channel at gage except at extreme high stages. Control formed by well-defined gravel bar; subject to slight changes.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.20 feet November 5 (discharge, 1,570 second-feet); minimum stage, 0.36 foot July 30, 31, August 1–4, 11, and 12 (discharge, 13 second-feet).

1920–1926: Maximum stage recorded, 7.0 feet May 19 and 20, 1921 (discharge, 14,500 second-feet); minimum discharge, 10 second-feet August 18, 1920.

ICE.—Stage-discharge relation affected by ice for short periods during severe winters.

DIVERSIONS.—Below practically all diversions for irrigation in Boise Valley. Records during irrigation season show amount of water wasted into Snake River.

REGULATION.—Flow regulated by head gates at Arrowrock Reservoir and by numerous diversions between station and reservoir.

ACCURACY.—Stage-discharge relation changed slightly March 11–30. Well-defined rating curve used October 1 to March 10, and curve parallel thereto used March 31 to September 30; shifting-control method used during intervening period. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table except for period shifting-control method was used. Records good.

*Discharge measurements of Boise River at Notus, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 1 | 2.43 | 724 | Apr. 30 | 0.47 | 19.3 |
| Apr. 8 | 1.63 | 252 | July 19 | .40 | 14.6 |

*Daily discharge, in second-feet, of Boise River at Notus, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 301 | 1,010 | 775 | 615 | 690 | 732 | 491 | 20 | 25 | 16 | 13 | 20 |
| 2 | 341 | 960 | 775 | 652 | 690 | 690 | 464 | 29 | 23 | 16 | 13 | 19 |
| 3 | 436 | 1,010 | 775 | 652 | 732 | 690 | 464 | 41 | 20 | 15 | 13 | 18 |
| 4 | 491 | 1,170 | 732 | 652 | 732 | 732 | 520 | 56 | 17 | 15 | 13 | 20 |
| 5 | 550 | 1,570 | 775 | 690 | 775 | 775 | 464 | 464 | 16 | 14 | 15 | 21 |
| 6 | 690 | 1,420 | 775 | 690 | 775 | 820 | 283 | 301 | 83 | 14 | 15 | 20 |
| 7 | 865 | 1,290 | 775 | 690 | 820 | 732 | 216 | 321 | 62 | 15 | 15 | 19 |
| 8 | 960 | 1,230 | 732 | 652 | 820 | 550 | 248 | 283 | 46 | 15 | 15 | 19 |
| 9 | 1,060 | 1,120 | 732 | 652 | 775 | 582 | 198 | 192 | 40 | 16 | 16 | 19 |
| 10 | 1,060 | 1,060 | 652 | 652 | 732 | 652 | 164 | 113 | 27 | 29 | 16 | 20 |
| 11 | 960 | 1,120 | 615 | 615 | 732 | 732 | 142 | 104 | 27 | 25 | 13 | 19 |
| 12 | 865 | 1,060 | 582 | 615 | 732 | 732 | 118 | 91 | 138 | 21 | 13 | 19 |
| 13 | 960 | 1,060 | 690 | 652 | 690 | 732 | 118 | 111 | 93 | 21 | 16 | 18 |
| 14 | 1,010 | 1,060 | 690 | 652 | 652 | 732 | 97 | 72 | 65 | 20 | 16 | 19 |
| 15 | 1,010 | 1,010 | 732 | 652 | 652 | 775 | 68 | 29 | 38 | 19 | 16 | 20 |
| 16 | 1,170 | 1,010 | 732 | 615 | 690 | 820 | 87 | 36 | 38 | 19 | 16 | 83 |
| 17 | 1,230 | 960 | 775 | 550 | 652 | 820 | 56 | 29 | 27 | 16 | 18 | 83 |
| 18 | 1,170 | 960 | 775 | 690 | 652 | 912 | 50 | 25 | 18 | 16 | 18 | 83 |
| 19 | 1,120 | 960 | 775 | 690 | 690 | 820 | 31 | 20 | 18 | 15 | 19 | 58 |
| 20 | 1,120 | 912 | 820 | 652 | 690 | 820 | 29 | 16 | 18 | 15 | 19 | 56 |
| 21 | 1,060 | 912 | 820 | 690 | 690 | 865 | 27 | 16 | 18 | 15 | 20 | 56 |
| 22 | 1,060 | 865 | 820 | 690 | 690 | 775 | 27 | 24 | 17 | 15 | 21 | 72 |
| 23 | 1,060 | 775 | 775 | 652 | 732 | 690 | 44 | 29 | 17 | 15 | 21 | 62 |
| 24 | 1,120 | 732 | 775 | 652 | 775 | 615 | 50 | 72 | 17 | 15 | 21 | 56 |
| 25 | 1,120 | 820 | 775 | 615 | 820 | 615 | 29 | 72 | 16 | 16 | 20 | 50 |
| 26 | 1,120 | 865 | 690 | 615 | 775 | 615 | 24 | 75 | 16 | 16 | 19 | 50 |
| 27 | 1,170 | 865 | 615 | 615 | 775 | 582 | 20 | 46 | 16 | 18 | 18 | 50 |
| 28 | 1,120 | 865 | 582 | 615 | 775 | 690 | 15 | 23 | 16 | 18 | 20 | 46 |
| 29 | 1,060 | 820 | 690 | 690 | ------- | 615 | 17 | 20 | 16 | 16 | 20 | 46 |
| 30 | 1,060 | 820 | 690 | 690 | ------- | 582 | 18 | 21 | 16 | 13 | 20 | 44 |
| 31 | 1,120 | ------- | 652 | 690 | ------- | 520 | ------- | 25 | ------- | 13 | 21 | ------- |

*Monthly discharge of Boise River at Notus, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 1,230 | 301 | 950 | 58,400 |
| November | 1,570 | 732 | 1,010 | 60,100 |
| December | 820 | 582 | 728 | 44,800 |
| January | 690 | 550 | 651 | 40,000 |
| February | 820 | 652 | 729 | 40,500 |
| March | 912 | 520 | 710 | 43,700 |
| April | 520 | 15 | 153 | 9,100 |
| May | 464 | 16 | 89.5 | 5,500 |
| June | 138 | 16 | 33.5 | 1,990 |
| July | 29 | 13 | 16.8 | 1,030 |
| August | 21 | 13 | 17.1 | 1,050 |
| September | 83 | 18 | 39.5 | 2,350 |
| The year | 1,570 | 13 | 426 | 309,000 |

### 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 use in irrigation.

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

Records are available from 1919 to 1926. Record of daily diversions subsequent to 1915 is on file in office of Idaho commissioner of reclamation.

*Total amount of water, in acre-feet, diverted from Boise River by canals during irrigation season of 1926*

| | | | |
|---|---|---|---|
| Main canal of United States Bureau of Reclamation | 402,000 | Phyllis | 69,800 |
| Penitentiary | 1,720 | Eureka No. 1 | 6,290 |
| Ridenbaugh | 107,000 | Pioneer | 7,560 |
| Bubb | 2,810 | Canyon County | 18,800 |
| Cruzen | 10,100 | Caldwell High Line | 18,800 |
| Boise City No. 1 | 8,700 | Farmers Cooperative | 51,800 |
| Settlers | 35,400 | Canyon | 3,360 |
| Thurmans Mill | 8,700 | Seibenberg | 2,770 |
| Farmers Union (includes Boise Valley diversion) | 48,700 | Riverside No. 2 | 40,200 |
| Little Union | 3,010 | Pioneer Dixie | 7,560 |
| Dry Creek | 14,100 | Eureka No. 2 | 12,000 |
| Ballantine | 3,480 | Upper Center Point | 2,290 |
| 7 Eagle Island canals | 11,400 | Lower Center Point | 2,610 |
| Middleton Water Co | 23,600 | Miscellaneous | 7,620 |
| Middleton Mill ditch | 14,100 | | 946,000 |

*Combined monthly discharge of canals diverting from Boise River, Idaho, during irrigation season of 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| April | 4,460 | 1,300 | 2,430 | 145,000 |
| May | 4,500 | 3,640 | 4,140 | 255,000 |
| June | 3,880 | 3,210 | 3,580 | 213,000 |
| July | 3,260 | 2,030 | 2,610 | 160,000 |
| August | 2,180 | 934 | 1,620 | 99,600 |
| September | 1,850 | 818 | 1,240 | 73,800 |
| The period | | | | 946,000 |

### SOUTH FORK OF BOISE RIVER NEAR LENOX, IDAHO

LOCATION.—In sec. 24, T. 2 N., R. 6 E., in canyon at R. S. Sandlin ranch, 1 mile above mouth of Smith Creek, 4 miles above flow line of Arrowrock Reservoir, and 4 miles southwest of discontinued Lenox post office, Elmore County.

DRAINAGE AREA.—1,090 square miles (measured on topographic maps).

RECORDS AVAILABLE.—March 24, 1911, to September 30, 1926.

GAGE.—Au continuous water-stage recorder on right bank, installed August 14, 1925; inspected by Mr. and Mrs. R. S. Sandlin.

DISCHARGE MEASUREMENTS.—Made from cable 100 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of mud and gravel. Control of coarse gravel and rock; practically permanent. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 6.04 feet at 10 a. m. May 5 (discharge, 3,040 second-feet); minimum stage, 1.92 feet December 31 (discharge, 142 second-feet).

1911–1926: Maximum stage recorded, 9.53 feet at 11 a. m. May 15, 1917 (discharge, 9,200 second-feet); minimum discharge, that of December 31, 1925.

ICE.—Stage-discharge relation affected by ice during severe winters.

DIVERSIONS.—No important diversions above or below gage.

REGULATION.—None.

ACCURACY.—Stage-discharge relation unchanged during year. Rating curve is well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph as indicated in footnote to table of daily discharge. Records good.

*Discharge measurements of South Fork of Boise River near Lenox, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 20 | 2.66 | 375 | June 8 | 3.64 | 913 |
| Feb. 17 | 2.60 | 354 | July 8 | 2.80 | 444 |
| Apr. 16 | 5.27 | 2,120 | | | |

*Daily discharge, in second-feet, of South Fork of Boise River near Lenox, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 313 | 352 | 390 | 148 | 325 | 360 | 767 | 2,160 | 1,090 | 373 | 181 | 178 |
| 2 | 313 | 356 | 750 | 158 | 325 | 381 | 677 | 2,070 | 1,050 | 373 | 176 | 181 |
| 3 | 309 | 360 | 656 | 244 | 332 | 416 | 677 | 1,980 | 1,020 | 348 | 181 | 181 |
| 4 | 309 | 356 | 489 | 274 | 340 | 456 | 688 | 1,980 | 988 | 329 | 183 | 183 |
| 5 | 309 | 321 | 461 | 277 | 340 | 518 | 750 | 2,660 | 988 | 325 | 178 | 186 |
| 6 | 403 | 321 | 443 | 309 | 412 | 522 | 862 | 2,220 | 988 | 321 | 173 | 192 |
| 7 | 494 | 325 | 412 | 302 | 447 | 498 | 988 | 1,940 | 924 | 321 | 170 | 192 |
| 8 | 416 | 321 | 373 | 302 | 434 | 498 | 1,120 | 1,720 | 893 | 360 | 170 | 189 |
| 9 | 381 | 332 | 344 | 291 | 434 | 547 | 1,260 | 1,520 | 862 | 377 | 173 | 186 |
| 10 | 373 | 356 | 317 | 302 | 416 | 562 | 1,260 | 1,440 | 796 | 344 | 168 | 186 |
| 11 | 377 | 360 | 317 | 299 | 412 | 567 | 1,260 | 1,330 | 733 | 313 | 165 | 186 |
| 12 | 452 | 369 | 348 | 299 | 390 | 618 | 1,330 | 1,300 | 699 | 302 | 170 | 186 |
| 13 | 527 | 373 | 348 | 291 | 348 | 767 | 1,480 | 1,260 | 656 | 299 | 168 | 186 |
| 14 | 456 | 336 | 264 | 277 | 329 | 1,050 | 1,600 | 1,190 | 613 | 284 | 168 | 186 |
| 15 | 429 | 306 | 232 | 332 | 313 | 1,190 | 1,800 | 1,220 | 587 | 274 | 163 | 186 |
| 16 | 416 | 356 | 309 | 321 | 325 | 1,370 | 2,020 | 1,260 | 582 | 260 | 160 | 189 |
| 17 | 403 | 381 | 302 | 332 | 340 | 1,330 | 2,120 | 1,330 | 572 | 254 | 158 | 197 |
| 18 | 398 | 373 | 309 | 336 | 329 | 1,090 | 2,320 | 1,370 | 547 | 247 | 170 | 197 |
| 19 | 390 | 340 | 332 | 329 | 321 | 1,050 | 2,370 | 1,400 | 532 | 241 | 197 | 197 |
| 20 | 377 | 313 | 302 | 356 | 336 | 1,050 | 2,260 | 1,560 | 532 | 241 | 226 | 197 |
| 21 | 373 | 295 | 274 | 348 | 340 | 1,090 | 2,120 | 1,640 | 522 | 235 | 214 | 197 |
| 22 | 369 | 288 | 281 | 332 | 336 | 1,160 | 1,980 | 1,520 | 494 | 229 | 200 | 194 |
| 23 | 369 | 295 | 302 | 321 | 329 | 1,400 | 1,800 | 1,520 | 470 | 226 | 192 | 197 |
| 24 | 356 | 299 | 313 | 332 | 325 | 1,440 | 1,680 | 1,480 | 452 | 221 | 183 | 200 |
| 25 | 352 | 356 | 302 | 329 | 329 | 1,190 | 1,640 | 1,400 | 438 | 216 | 178 | 200 |
| 26 | 356 | 407 | 257 | 309 | 329 | 1,020 | 1,720 | 1,300 | 420 | 211 | 168 | 206 |
| 27 | 356 | 407 | 223 | 295 | 329 | 924 | 1,800 | 1,220 | 398 | 206 | 165 | 211 |
| 28 | 356 | 386 | 208 | 329 | 344 | 862 | 1 850 | 1 190 | 381 | 201 | 165 | 214 |
| 29 | 352 | 360 | 183 | 356 | ------- | 785 | 1 980 | 1,190 | 373 | 196 | 165 | 220 |
| 30 | 356 | 356 | 155 | 336 | ------- | 744 | 2,120 | 1,160 | 365 | 191 | 163 | 226 |
| 31 | 352 | ------- | 142 | 321 | ------- | 767 | ------- | 1,120 | ------- | 186 | 165 | ------ |

NOTE.—Water-stage recorder not operating July 24–31 and Aug. 1; discharge interpolated.

*Monthly discharge of South Fork of Boise River near Lenox, Idaho, for the year ending September 30, 1926*

[Drainage area, 1,090 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 527 | 309 | 380 | 0.349 | 0.40 | 23,400 |
| November | 407 | 288 | 345 | .317 | .35 | 20,500 |
| December | 750 | 142 | 333 | .306 | .35 | 20,500 |
| January | 356 | 148 | 303 | .278 | .32 | 18,600 |
| February | 447 | 313 | 354 | .325 | .34 | 19,700 |
| March | 1,440 | 360 | 846 | .776 | .89 | 52,000 |
| April | 2,370 | 677 | 1,540 | 1.41 | 1.57 | 91,600 |
| May | 2,660 | 1,120 | 1,540 | 1.41 | 1.63 | 94,700 |
| June | 1,090 | 365 | 666 | .611 | .68 | 39,600 |
| July | 377 | 186 | 274 | .251 | .29 | 16,800 |
| August | 226 | 158 | 176 | .161 | .19 | 10,800 |
| September | 226 | 178 | 194 | .178 | .20 | 11,500 |
| The year | 2,660 | 142 | 580 | .532 | 7.21 | 420,000 |

### LITTLE CAMAS RESERVOIR NEAR BENNETT, IDAHO

LOCATION.—In sec. 9, T. 1 S., R. 9 E., 4 miles northeast of Bennett, Elmore County, and 22 miles northeast of Mountain Home.

DRAINAGE AREA.—31.8 square miles (measured on map of Mountain Home Cooperative Irrigation Co.).

RECORDS AVAILABLE.—March 20, 1924, to September 30, 1926.

GAGE.—Readings obtained by measuring with steel tape from reference point located on top of northeast corner of concrete outlet structure or by leveling to water surface from bench mark; read by Charles Harvison. Elevations referred to datum of Mountain Home Irrigation District.

EXTREMES OF STAGE.—Maximum stage recorded during year, 4,954.40 feet April 30; minimum stage, 4,935.47 feet July 5. Slightly lower stage occurred from July 6–9 when usable storage was entirely released.

1924–1926: Maximum stage recorded, 4,961.67 feet May 27, 1925; reservoir practically empty on May 29, 1924, and July 9, 1926.

COOPERATION.—Gage-height record furnished in part by Mountain Home Irrigation District.

Water is stored in Little Camas Reservoir for irrigation use on about 5,000 acres of land in the vicinity of Mountain Home. The bottom of tunnel outlet corresponds to an elevation of 4,926.50 feet referred to recorded reservoir stages, which is about 4.5 feet below stage to which the present usable storage can be drawn. Elevation of crest of spillway corresponds to 4,965.00 feet at which stage the reservoir capacity is about 22,300 acre-feet, about 1,250 acres of land being submerged.

*Daily gage height, in feet, of Little Camas Reservoir near Bennett, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Apr. | May | June | July | Day | Oct. | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 4,954.38 | | 4,938.36 | 16 | | 4,953.86 | | 4,945.45 | |
| 2 | | | | | 4,937.80 | 17 | | | 4,952.38 | | |
| 3 | | | | | | 18 | | | | 4,944.72 | |
| 4 | | | 4,954.26 | 4,948.72 | | 19 | | | | | |
| 5 | | | | | 4,935.47 | 20 | | | | | |
| 6 | | | | | | 21 | | | 4,951.72 | 4,943.59 | |
| 7 | | | 4,953.95 | 4,948.09 | | 22 | | | | | |
| 8 | 4,944.40 | | | | | 23 | | | | 4,942.78 | |
| 9 | | 4,952.86 | | | | 24 | | | 4,951.13 | | |
| 10 | | | | | | 25 | | | | 4,941.80 | |
| 11 | | | 4,953.38 | 4,946.97 | | 26 | | | | | |
| 12 | | | | | | 27 | | | | | |
| 13 | | | | | | 28 | | | 4,950.30 | 4,940.22 | |
| 14 | | | 4,952.97 | 4,946.01 | | 29 | | | | | |
| 15 | | | | | | 30 | | 4,954.40 | | 4,939.13 | |
| | | | | | | 31 | | | 4,949.68 | | |

NOTE.—Gates in dam opened on May 1 for release of water through Little Camas Canal, prior to which time gates were closed since preceding irrigation season. Reservoir was drained on July 9, at which time gates were closed for remainder of season.

### LITTLE CAMAS CANAL AT HEADING, NEAR BENNETT, IDAHO

LOCATION.—In sec. 9, T. 1 S., R. 9 E., 400 feet below Little Camas Reservoir, 4 miles northeast of Bennett, Elmore County, and 22 miles northeast of Mountain Home.

RECORDS AVAILABLE.—June 1 to November 28, 1917; April 16, 1924, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank, installed March 9, 1926; inspected by Charles Harvison.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of cemented sand and fine gravel. Control formed by head of McGinnis flume 1,200 feet below gage; growth of moss in earth canal section above flume may affect stage-discharge relation at times.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 2.24 feet from 9 a. m. May 6 to noon May 7 (discharge, 64 second-feet); canal reported dry prior to May 1 and after July 9.

1917, 1924–1926: Maximum discharge recorded, 77 second-feet April 27–30, May 1, 3, and 9, 1924; no flow for several periods during record.

DIVERSIONS.—None.

REGULATION.—Flow regulated by head gates at Little Camas Reservoir.

ACCURACY.—Stage-discharge relation permanent during period of record. Rating curve well defined between 35 and 70 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph except May 1, for which discharge is mean of discharges for shorter intervals, and as indicated in footnote to daily-discharge table. Records good.

COOPERATION.—Station maintained in cooperation with Mountain Home Irrigation District.

Water released from Little Camas Reservoir in sec. 9, T. 1 S., R. 9 E., is carried 13 miles through Little Camas Canal into Long Tom Basin and collected in Long Tom Reservoir for release for irrigation use on about 5,000 acres of land near Mountain Home.

*Discharge measurements of Little Camas Canal at heading near Bennett, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 7 | 2.24 | 61.3 | July 1 | 2.20 | 61.9 |
| May 24 | 2.16 | 61.3 | July 9 | (a) | b 8.0 |

a Water below gage. b Estimated.

*Daily discharge, in second-feet, of Little Camas Canal at heading near Bennett, Idaho, for the year ending September 30, 1926*

| Day | May | June | July | Day | May | June | July | Day | May | June | July |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14 | 61 | 62 | 11 | 63 | 62 | ------ | 21 | 61 | 62 | ------ |
| 2 | 26 | 62 | 62 | 12 | 63 | 62 | ------ | 22 | 61 | 62 | ------ |
| 3 | 35 | 62 | 60 | 13 | 63 | 62 | ------ | 23 | 61 | 62 | ------ |
| 4 | 49 | 62 | 59 | 14 | 63 | 63 | ------ | 24 | 60 | 60 | ------ |
| 5 | 54 | 61 | 59 | 15 | 62 | 63 | ------ | 25 | 62 | 62 | ------ |
| 6 | 60 | 61 | 56 | 16 | 62 | 63 | ------ | 26 | 63 | 62 | ------ |
| 7 | 64 | 62 | 27 | 17 | 62 | 62 | ------ | 27 | 62 | 60 | ------ |
| 8 | 63 | 62 | 7.2 | 18 | 62 | 62 | ------ | 28 | 62 | 62 | ------ |
| 9 | 63 | 62 | 2.8 | 19 | 62 | 62 | ------ | 29 | 61 | 62 | ------ |
| 10 | 63 | 61 | ------ | 20 | 61 | 62 | ------ | 30 | 61 | 62 | ------ |
| | | | | | | | | 31 | 61 | ------ | ------ |

NOTE.—Gage-height record in error May 18–20; discharge interpolated. Water shut off at 8.30 a. m. July 9; discharge estimated.

*Monthly discharge of Little Camas Canal at heading near Bennett, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 64 | 14 | 57.7 | 3,550 |
| June | 63 | 60 | 61.8 | 3,680 |
| July 1–9 | 62 | 2.8 | 43.9 | 784 |
| The period | | | | 8,010 |

### LITTLE CAMAS CANAL BELOW TUNNEL NO. 9, NEAR BENNETT, IDAHO

LOCATION.—In sec. 22, T. 1 S., R. 8 E., 300 feet below outlet of tunnel No. 9, 3 miles west of Bennett, Elmore County, and 22 miles northeast of Mountain Home.

RECORDS AVAILABLE.—April 2, 1924, to September 30, 1926, when station was discontinued. From June 1 to November 29, 1917, records were obtained from station above tunnel No. 9, half a mile above present gage.

GAGE.—Au water-stage recorder on left bank, installed May 12, 1924; referred to vertical staff set to read actual head over Cippoletti weir located 3 feet below gage; inspected by James Spofford and Geological Survey engineers.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of silt, sand, and fine gravel. Banks high and clean. Control formed by 10-foot Cippoletti weir set in concrete.

EXTREMES OF DISCHARGE.—Maximum discharge recorded during year, 60 second-feet July 1–3; canal reported dry prior to May 1 and after July 13.

1924–1926: Maximum discharge recorded, 66 second-feet May 8–11, 13, and 14, 1924; canal practically dry except during irrigation seasons.

DIVERSIONS.—None.

REGULATION.—Flow regulated by gates at Little Camas Reservoir. During early spring canal picks up a small flow from side drainage.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined below 65 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph, except as indicated in footnote to table of daily discharge. Records good.

Canal heads in Little Camas Reservoir in sec. 9, T. 1 S., R. 9 E., 13 miles above gage (distance by canal route) where water is released for irrigation use on about 5,000 acres of land in the vicinity of Mountain Home.

*Discharge measurements of Little Camas Canal below tunnel No. 9, near Bennett, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 7 | 1.11 | 48.4 | July 1 | 1.26 | 60.0 |
| May 24 | 1.17 | 54.2 | July 9 | .22 | 3.1 |

*Daily discharge, in second-feet, of Little Camas Canal below tunnel No. 9, near Bennett, Idaho, for the year ending September 30, 1926*

| Day | May | June | July | Day | May | June | July | Day | May | June | July |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4 | 55 | 60 | 11 | 53 | 57 | 0.7 | 21 | 55 | 59 | ------ |
| 2 | 15 | 54 | 60 | 12 | 53 | 58 | .7 | 22 | 55 | 59 | ------ |
| 3 | 24 | 55 | 60 | 13 | 54 | 58 | .6 | 23 | 55 | 57 | ------ |
| 4 | 34 | 55 | 58 | 14 | 54 | 58 | ------ | 24 | 54 | 56 | ------ |
| 5 | 42 | 55 | 59 | 15 | 55 | 59 | ------ | 25 | 54 | 55 | ------ |
| 6 | 48 | 55 | 58 | 16 | 55 | 59 | ------ | 26 | 55 | | |
| 7 | 50 | 56 | 39 | 17 | 55 | 58 | ------ | 27 | 55 | 57 | ------ |
| 8 | 51 | 57 | 10 | 18 | 55 | 58 | ------ | 28 | 55 | | |
| 9 | 52 | 56 | 3.0 | 19 | 55 | 59 | ------ | 29 | 55 | | |
| 10 | 52 | 56 | .9 | 20 | 55 | 58 | ------ | 30 | 55 | 59 | ------ |
| | | | | | | | | 31 | 55 | ------ | ------ |

NOTE.—Water-stage recorder not operating May 1–5 and June 26–29; discharge estimated by comparison with flow at head of canal. Braced figure shows mean discharge for period indicated.

*Monthly discharge of Little Camas Canal below tunnel No. 9, near Bennett, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May | 55 | 4 | 49.0 | 3,010 |
| June | 59 | 54 | 57.0 | 3,390 |
| July 1–13 | 60 | .6 | 31.5 | 812 |
| The period | | | | 7,210 |

### MOORE CREEK NEAR ARROWROCK, IDAHO

LOCATION.—In sec. 21, T. 3 N., R. 4 E., at highway bridge on Boise-Arrowrock road, a quarter of a mile above mouth, and 5 miles southwest of Arrowrock, Boise County.

DRAINAGE AREA.—426 square miles (measured on topographic maps).

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1926 (discharge measurements only prior to December 1, 1915).

GAGE.—Vertical staff on right bank, 35 feet above highway bridge; read by Oliver Call. Prior to October 10, 1925, used a vertical staff on right bank 20 feet below present site.

DISCHARGE MEASUREMENTS.—Made from highway bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of boulders, cobbles, and sand. Stream usually carries much sand and silt as a result of placer operations in Boise Basin. Control shifts frequently owing to deposition of sand at low stages and scouring out at high stages. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.58 feet May 5 (discharge, 809 second-feet); minimum discharge, 12 second-feet August 2–8, 13, 16, and 17.

1915–1926: Maximum stage recorded, 6.3 feet April 11, 1916 (discharge, 3,140 second-feet); minimum discharge, 7.9 second-feet August 13–15, 17, and 18, 1924.

ICE.—Stage-discharge relation ordinarily not seriously affected by ice.

DIVERSIONS.—No important diversions above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed several times during year. Two well-defined rating curves and curves parallel thereto were used. Gage read to hundredths once daily; rough water at high stages makes it difficult to read gage with refinement. Daily discharge determined by applying daily gage height to rating table November 21 to February 28 and July 3 to September 30, and by shifting-control method for remainder of year. Records of daily discharge, fair; records of monthly discharge, good.

COOPERATION.—Several discharge measurements made by employees of United States Bureau of Reclamation and water master for Boise River.

*Discharge measurements of Moore Creek near Arrowrock, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 10 | 0.66 | 65 | Apr. 14 | 2.40 | 652 | June 22 | 0.68 | 66 |
| Oct. 22 | .65 | 62 | Apr. 27 | 1.99 | 393 | July 7 | .30 | 26.0 |
| Nov. 20 | .77 | 62 | Do | 2.02 | 446 | July 15 | .23 | 21.4 |
| Nov. 24 | .77 | 75 | Do | 1.96 | 406 | Aug. 13 | .08 | 12.7 |
| Jan. 30 | .90 | 98 | May 12 | 1.64 | 293 | Aug. 19 | .63 | 64.2 |
| Feb. 27 | 1.21 | 170 | May 19 | 1.48 | 279 | Aug. 21 | .39 | 31.5 |
| Mar. 17 | 2.38 | 569 | June 1 | 1.02 | 138 | Aug. 27 | .26 | 20.4 |
| Mar. 22 | 2.15 | 521 | June 8 | .81 | 92 | Sept. 30 | .39 | 32.7 |
| Apr. 6 | 1.96 | 435 | | | | | | |

*Daily discharge, in second-feet, of Moore Creek near Arrowrock, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 50 | 64 | 115 | 61 | 104 | 196 | 359 | 417 | 124 | 35 | 13 | 27 |
| 2 | 49 | 66 | 377 | 60 | 98 | 212 | 308 | 417 | 115 | 34 | 12 | 27 |
| 3 | 48 | 70 | 308 | 66 | 106 | 237 | 341 | 377 | 108 | 32 | 12 | 27 |
| 4 | 47 | 67 | 237 | 63 | 111 | 262 | 341 | 377 | 106 | 32 | 12 | 26 |
| 5 | 47 | 56 | 209 | 64 | 124 | 292 | 440 | 309 | 94 | 32 | 12 | 25 |
| 6 | 81 | 54 | 196 | 93 | 220 | 262 | 440 | 490 | 106 | 30 | 12 | 24 |
| 7 | 95 | 56 | 167 | 80 | 377 | 248 | 463 | 463 | 98 | 26 | 12 | 24 |
| 8 | 74 | 61 | 142 | 64 | 440 | 262 | 577 | 417 | 91 | 28 | 12 | 24 |
| 9 | 72 | 70 | 137 | 61 | 377 | 262 | 646 | 377 | 89 | 27 | 20 | 24 |
| 10 | 56 | 87 | 128 | 61 | 324 | 262 | 646 | 341 | 80 | 30 | 18 | 24 |
| 11 | 61 | 94 | 119 | 72 | 308 | 262 | 646 | 324 | 77 | 27 | 18 | 24 |
| 12 | 94 | 106 | 113 | 75 | 248 | 292 | 646 | 292 | 72 | 25 | 14 | 23 |
| 13 | 91 | 100 | 115 | 74 | 248 | 292 | 684 | 277 | 72 | 24 | 12 | 22 |
| 14 | 87 | 89 | 84 | 66 | 188 | 397 | 684 | 277 | 72 | 23 | 13 | 22 |
| 15 | 84 | 85 | 80 | 66 | 206 | 397 | 723 | 262 | 69 | 22 | 13 | 23 |
| 16 | 74 | 87 | 108 | 66 | 188 | 397 | 723 | 262 | 77 | 21 | 12 | 23 |
| 17 | 70 | 91 | 91 | 80 | 175 | 612 | 766 | 262 | 74 | 20 | 12 | 26 |
| 18 | 67 | 89 | 102 | 85 | 154 | 546 | 766 | 262 | 74 | 20 | 18 | 26 |
| 19 | 66 | 85 | 98 | 67 | 154 | 546 | 766 | 262 | 74 | 20 | 58 | 26 |
| 20 | 61 | 77 | 91 | 59 | 162 | 516 | 684 | 262 | 100 | 19 | 48 | 25 |
| 21 | 61 | 78 | 102 | 82 | 162 | 577 | 646 | 262 | 82 | 18 | 33 | 25 |
| 22 | 61 | 77 | 98 | 72 | 152 | 546 | 546 | 262 | 67 | 18 | 31 | 26 |
| 23 | 59 | 77 | 111 | 77 | 137 | 612 | 516 | 237 | 67 | 17 | 26 | 26 |
| 24 | 56 | 72 | 135 | 85 | 147 | 646 | 440 | 234 | 58 | 17 | 24 | 26 |
| 25 | 56 | 98 | 124 | 70 | 157 | 546 | 417 | 228 | 55 | 17 | 24 | 26 |
| 26 | 59 | 96 | 111 | 67 | 162 | 463 | 440 | 212 | 51 | 17 | 24 | 25 |
| 27 | 59 | 98 | 121 | 59 | 170 | 440 | 417 | 204 | 45 | 16 | 24 | 26 |
| 28 | 59 | 96 | 102 | 60 | 185 | 397 | 417 | 188 | 42 | 15 | 24 | 27 |
| 29 | 67 | 91 | 100 | 85 | ------- | 341 | 417 | 177 | 41 | 14 | 22 | 27 |
| 30 | 66 | 102 | 82 | 100 | ------- | 324 | 417 | 162 | 34 | 13 | 21 | 32 |
| 31 | 61 | ------- | 61 | 102 | ------- | 324 | ------- | 128 | ------- | 13 | 25 | ------ |

*Monthly discharge of Moore Creek near Arrowrock, Idaho, for the year ending September 30, 1926*

[Drainage area, 426 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 95 | 47 | 65.7 | 0.154 | 0.18 | 4,040 |
| November | 106 | 54 | 81.3 | .191 | .21 | 4,840 |
| December | 377 | 61 | 134 | .315 | .36 | 8,240 |
| January | 102 | 59 | 72.3 | .170 | .20 | 4,450 |
| February | 440 | 98 | 199 | .467 | .49 | 11,100 |
| March | 646 | 196 | 386 | .906 | 1.04 | 23,700 |
| April | 766 | 308 | 544 | 1.28 | 1.43 | 32,400 |
| May | 809 | 128 | 307 | .721 | .83 | 18,900 |
| June | 124 | 34 | 77.1 | .181 | .20 | 4,590 |
| July | 35 | 13 | 22.6 | .053 | .06 | 1,390 |
| August | 58 | 12 | 20.4 | .048 | .06 | 1,250 |
| September | 32 | 22 | 25.3 | .059 | .07 | 1,510 |
| The year | 809 | 12 | 161 | .378 | 5.13 | 116,000 |

### MALHEUR RIVER NEAR DREWSEY, OREG.

LOCATION.—In NE. ¼ SE. ¼ sec. 3, T. 22 S., R. 36 E., half a mile above high-water flow line of Warmsprings Reservoir, 8 miles above dam, and 10 miles below Drewsey, Harney County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 26 to September 30, 1923, and June 8, 1926, to September 30, 1926. June 1 to December 29, 1920, and April 11 to September 4, 1921, comparable records at a site 7 miles upstream. March 9 to September 30, 1914, a station was maintained 20 miles upstream, but records are not comparable because of inflow from Griffin, Otis, and Stinking Water Creeks.

GAGE.—Stevens continuous water-stage recorder on right bank, installed June 8, 1926; inspected by H. G. Kennard and U. S. Yost.

DISCHARGE MEASUREMENTS.—Made by wading or from cable 25 feet above gage.

CHANNEL AND CONTROL.—Bed at riffle is composed of gravel and boulders and is not likely to shift. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage during period, from water-stage recorder, 1.34 feet 2 to 4 p. m. September 29 (discharge, 17 second-feet); minimum stage, 0.69 foot at midnight August 8 (discharge, 1 second-foot).

1920–1921, 1923, 1926: Maximum discharge recorded, 2,240 second-feet at 1 a. m. April 14, 1921; minimum discharge, that of August 8, 1926.

ICE.—No gage-height record during winter.

DIVERSIONS.—Several small diversions above station; no diversions around station or between station and Warmsprings Reservoir.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Water-stage recorder operated satisfactorily. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph by inspection. Records good.

COOPERATION.—Records furnished by State engineer of Oregon.

The following discharge measurements were made:

April 2, 1926: Gage height, 3.19 feet; discharge, 330 second-feet.

June 27, 1926: Gage height, 1.14 feet; discharge, 6.8 second-feet.

*Daily discharge, in second-feet, of Malheur River near Drewsey, Oreg., for the year ending September 30, 1926*

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

*Monthly discharge of Malheur River near Drewsey, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| June 8–30 | 12 | 5 | 9.3 | 424 |
| July | 5 | 2 | 2.7 | 166 |
| August | 3 | 1 | 1.5 | 92 |
| September | 16 | 2 | 6.0 | 357 |
| The period | | | | 1,040 |

### WARMSPRINGS RESERVOIR NEAR RIVERSIDE, OREG.

LOCATION.—In SE. ¼ sec. 8, T. 23 S., R. 37 E., on Malheur River 4 miles above junction with South Fork and 4 miles above Riverside, Malheur County.

RECORDS AVAILABLE.—January 24, 1920, to September 30, 1926.

GAGE.—Tape gage with float set to read depth of water above bottom of outlet tunnel; read by U. S. Yost. Elevation of bottom of tunnel, 3,327.00 feet above mean sea level.

EXTREMES OF STAGE.—Maximum stage recorded during year, 72.15 feet April 24 (contents, 161,700 acre-feet); minimum stage, 39.84 feet September 30 (contents, 51,600 acre-feet).

Warmsprings 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. Capacity of reservoir at spillway level, 74.0 feet is 170,000 acre-feet.

COOPERATION.—Records furnished by State engineer of Oregon.

*Monthly stage and contents of Warmsprings Reservoir near Riverside, Oreg., for the year ending September 30, 1926*

| Date | Gage height | Contents | Loss or gain during month | Date | Gage height | Contents | Loss or gain during month |
|---|---|---|---|---|---|---|---|
| | *Feet* | *Acre-feet* | *Acre-feet* | | *Feet* | *Acre-feet* | *Acre-feet* |
| Oct. 31 | 53.05 | 90,200 | −700 | May 31 | 66.52 | 139,100 | −20,800 |
| Nov. 30 | 53.99 | 93,000 | +2,800 | June 30 | 59.90 | 112,600 | −26,500 |
| Dec. 31 | 55.26 | 96,800 | +3,800 | July 31 | 52.92 | 89,800 | −22,800 |
| Jan. 31 | 56.32 | 100,000 | +3,200 | Aug. 31 | 45.41 | 67,200 | −22,600 |
| Feb. 28 | 62.37 | 122,500 | +22,500 | Sept. 30 | 39.84 | 51,600 | −15,600 |
| Mar. 31 | 67.75 | 144,000 | +21,500 | | | | |
| Apr. 30 | 71.71 | 159,900 | +15,900 | The year | | | −39,300 |

### MALHEUR RIVER BELOW WARMSPRINGS RESERVOIR, NEAR RIVERSIDE, OREG.

LOCATION.—In SW. ¼ sec. 17, T. 23 S., R. 37 E., 1 mile below Warmsprings Dam, 3 miles above mouth of South Fork, and 4 miles northwest of Riverside, Malheur County.

DRAINAGE AREA.—About 1,100 square miles.

RECORDS AVAILABLE.—December 9, 1914, to July 4, 1917, and March 18, 1919, to September 30, 1926. From January 3, 1906, to March 31, 1907, and December 15, 1908, to May 25, 1910, records were obtained at a station at Riverside 4 miles below.

GAGE.—Vertical staff gage on left bank used since April 28, 1920; read by U. S. Yost.

DISCHARGE MEASUREMENTS.—Made from a highway bridge one-fourth mile below dam or by wading.

CHANNEL AND CONTROL.—Concrete control about 200 feet below gage. There is some disintegration of concrete during winter because of poor quality. Above a medium stage concrete control is submerged and contraction and riffle 200 feet farther downstream acts as control.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.80 feet May 2–3 (discharge, 470 second-feet); seepage amounted to 1 second-foot when gates to reservoir were closed October 9 to April 19.

1906–1926: Maximum discharge recorded, 5,490 second-feet March 2, 1910; minimum discharge recorded prior to construction of dam, practically no flow during August, 1910; determined by subtracting discharge of South Fork from discharge of main river below South Fork. Minimum discharge since construction of dam somewhat less than 1 second-foot when gates are closed; stream was dry August 1 to September 16, 1919, while dam was being constructed.

ICE.—No water released from dam during winter.

DIVERSIONS.—A large area of bottom land is irrigated with flood water above station.

REGULATION.—Flow past station entirely controlled by operation of gates in Warmsprings Dam beginning November, 1919.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Staff gage read to hundredths once daily and time noted when change was made in gate openings at dam. Daily discharge ascertained by applying daily gage height or weighted daily gage height to rating table. Records good.

COOPERATION.—Records furnished by State engineer of Oregon.

The following discharge measurements were made:
June 27, 1926: Gage height, 4.62 feet; discharge, 397 second-feet.
June 28, 1926: Gage height, 4.26 feet; discharge, 255 second-feet.

*Daily discharge, in second-feet, of Malheur River below Warmsprings Reservoir, near Riverside, Oreg., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 163 | 1 | 1 | 1 | 1 | 1 | 1 | 438 | 365 | 385 | 305 | 297 |
| 2 | 163 | 1 | 1 | 1 | 1 | 1 | 1 | 470 | 325 | 385 | 305 | 265 |
| 3 | 163 | 1 | 1 | 1 | 1 | 1 | 1 | 470 | 325 | 385 | 305 | 265 |
| 4 | 163 | 1 | 1 | 1 | 1 | 1 | 1 | 448 | 325 | 385 | 305 | 265 |
| 5 | 148 | 1 | 1 | 1 | 1 | 1 | 1 | 385 | 325 | 385 | 305 | 265 |
| 6 | 106 | 1 | 1 | 1 | 1 | 1 | 1 | 385 | 325 | 385 | 313 | 265 |
| 7 | 106 | 1 | 1 | 1 | 1 | 1 | 1 | 385 | 325 | 385 | 345 | 258 |
| 8 | 80 | 1 | 1 | 1 | 1 | 1 | 1 | 401 | 325 | 385 | 345 | 230 |
| 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 385 | 325 | 385 | 345 | 230 |
| 10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 385 | 325 | 377 | 345 | 230 |
| 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 385 | 325 | 345 | 345 | 230 |
| 12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 345 | 353 | 345 | 345 | 230 |
| 13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 230 | 385 | 345 | 345 | 230 |
| 14 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 248 | 385 | 345 | 345 | 230 |
| 15 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 281 | 385 | 345 | 345 | 230 |
| 16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 325 | 385 | 345 | 345 | 230 |
| 17 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 325 | 385 | 333 | 345 | 230 |
| 18 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 341 | 385 | 305 | 345 | 230 |
| 19 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 385 | 385 | 305 | 345 | 230 |
| 20 | 1 | 1 | 1 | 1 | 1 | 1 | 14 | 385 | 405 | 305 | 325 | 230 |
| 21 | 1 | 1 | 1 | 1 | 1 | 1 | 82 | 385 | 425 | 305 | 325 | 212 |
| 22 | 1 | 1 | 1 | 1 | 1 | 1 | 82 | 385 | 417 | 305 | 325 | 163 |
| 23 | 1 | 1 | 1 | 1 | 1 | 1 | 101 | 385 | 405 | 305 | 325 | 163 |
| 24 | 1 | 1 | 1 | 1 | 1 | 1 | 179 | 385 | 405 | 305 | 325 | 163 |
| 25 | 1 | 1 | 1 | 1 | 1 | 1 | 230 | 365 | 405 | 305 | 325 | 163 |
| 26 | 1 | 1 | 1 | 1 | 1 | 1 | 258 | 345 | 385 | 305 | 325 | 163 |
| 27 | 1 | 1 | 1 | 1 | 1 | 1 | 345 | 345 | 385 | 305 | 325 | 163 |
| 28 | 1 | 1 | 1 | 1 | 1 | 1 | 365 | 345 | 385 | 305 | 305 | 163 |
| 29 | 1 | 1 | 1 | 1 | ------ | 1 | 385 | 365 | 385 | 305 | 305 | 163 |
| 30 | 1 | 1 | 1 | 1 | ------ | 1 | 425 | 365 | 385 | 305 | 305 | 163 |
| 31 | 1 | ------ | 1 | 1 | ------ | 1 | ------ | 365 | ------ | 305 | 305 | ------ |

*Monthly discharge of Malheur River below Warmsprings Reservoir, near Riverside, Oreg., during the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 163 | 1 | 36.0 | 2,210 |
| November | 1 | 1 | 1 | 60 |
| December | 1 | 1 | 1 | 61 |
| January | 1 | 1 | 1 | 61 |
| February | 1 | 1 | 1 | 56 |
| March | 1 | 1 | 1 | 61 |
| April | 425 | 1 | 82.8 | 4,930 |
| May | 470 | 230 | 369 | 22,700 |
| June | 425 | 325 | 368 | 21,900 |
| July | 385 | 305 | 339 | 20,800 |
| August | 345 | 305 | 327 | 20,100 |
| September | 297 | 163 | 218 | 13,000 |
| The year | 470 | 1 | 146 | 106,000 |

### MALHEUR RIVER AT NAMORF, OREG.

LOCATION.—In NE. ¼ sec. 6, T. 21 S., R. 41 E., half a mile below proposed diversion dam to main canal of Vale project of United States Bureau of Reclamation, and 1 mile above Namorf, Malheur County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—June 12 to September 30, 1926. May 24, 1913, to December 31, 1923, at station 2 miles upstream; records comparable.

GAGE.—Stevens 8-day water-stage recorder on left bank; inspected by Robert Shaw.

DISCHARGE MEASUREMENTS.—Made by wading or from cable 75 feet below gage.

CHANNEL AND CONTROL.—Bed at wide riffle composed of hardpan, gravel, and small boulders; not subject to shift but stage-discharge relation may be affected by aqueous growth. One channel at all stages.

EXTREMES OF DISCHARGE.—Minimum discharge during period, from water-stage recorder, 188 second-feet September 24–26.

1913–1923, 1926: Maximum discharge recorded, 8,450 second-feet during night of February 7, 1916; minimum discharge, 4 second-feet July 25, 1919.

Estimated discharge of flood of March 1, 1910, from high-water mark at Froman ranch, 12,600 second-feet. The floods of March 7 and 9, 1894, are said to have been about 0.3 foot higher.

ICE.—No record obtained during winter.

DIVERSIONS.—Many small diversions are made from the river and its tributaries above gage, the largest being made near Drewsey and from North Fork near Juntura.

REGULATION.—Flow controlled to a large extent since November, 1919, by Warmsprings Dam.

ACCURACY.—Stage-discharge relation not permanent; affected by aquatic growth June 25 to September 30. Rating curve fairly well defined. Operation of water-stage recorder not satisfactory. Daily discharge ascertained by shifting-control method. No monthly values computed. Records fair.

COOPERATION.—Records furnished by State engineer of Oregon.

The following discharge measurements were made:

June 12, 1926: Gage height, 1.80 feet; discharge, 364 second-feet.

June 25, 1926: Gage height, 2.09 feet; discharge, 402 second-feet.

October 1, 1926: Gage height, 1.28 feet; discharge, 193 second-feet.

*Daily discharge, in second-feet, of Malheur River near Namorf, Oreg., for the year ending September 30, 1926*

| Day | June | July | Aug. | Sept. | Day | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | 300 | 16 | | | 325 | 232 |
| 2 | | | | 293 | 17 | | | 320 | 232 |
| 3 | | | 275 | 275 | 18 | | | | 228 |
| 4 | | | 275 | 263 | 19 | | | | 232 |
| 5 | | | 275 | 260 | 20 | | | | 238 |
| 6 | | | 281 | 260 | 21 | | | | 238 |
| 7 | | | 290 | 260 | 22 | | | 305 | 220 |
| 8 | | | 299 | 260 | 23 | | 278 | 310 | 202 |
| 9 | | 366 | 305 | 251 | 24 | | 281 | | 188 |
| 10 | | | 312 | 238 | 25 | 404 | 281 | | 188 |
| 11 | | | 318 | 232 | 26 | | 278 | | 188 |
| 12 | 360 | 330 | 322 | 232 | 27 | | | | 195 |
| 13 | | | 325 | 232 | 28 | | 275 | | 192 |
| 14 | | | | 232 | 29 | | 275 | | 192 |
| 15 | | | | 232 | 30 | | | | 192 |

NOTE.—Total run-off for month of September, 13,800 acre-feet.

### MALHEUR RIVER NEAR HOPE, OREG.

LOCATION.—In SW.¼ sec. 5, T. 19 S., R. 43 E., half a mile above intake of Vines Canal and railroad bridge, 15 miles west of Vale, and 6½ miles west of Hope, Malheur County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 30 to October 26, 1919; May 5 to September 30, 1920; fragmentary record during 1921 and 1922; October 1, 1922, to September 30, 1926. Station maintained half a mile below Vines Canal, March 22 to September 30, 1914.

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by C. L. Batchelder and H. G. Kennard.

DISCHARGE MEASUREMENTS.—Made from cable at gage or by wading.

CHANNEL AND CONTROL.—Bed composed of sand, gravel, and boulders; subject to shift at high stages. One channel at all stages.

EXTREMES OF DISCHARGE.—Water-stage recorder not operating during period in winter when maximum and minimum discharges may have occurred, but there was no flood and minimum stage was probably not much less than 70 second-feet recorded on January 13.

1919–1926: Maximum discharge recorded, 8,100 second-feet February 5, 1925; minimum stage 0.2 foot from 5 to 9 p. m. September 2, 1919 (discharge, 3.5 second-feet).

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Several small canals divert water above station.

REGULATION.—Flow controlled to a large extent by Warmsprings Dam 60 miles upstream.

ACCURACY.—Stage-discharge relation practically permanent. Rating curve fairly well defined below 5,000 second-feet. Operation of water-stage recorder not satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph except as indicated in footnote to daily-discharge table. Records good except for estimated periods, for which they are fair.

COOPERATION.—Records furnished by State engineer of Oregon.

The following discharge measurements were made:

March 31, 1926: Gage height, 1.47 feet; discharge, 174 second-feet.

May 18, 1926: Gage height, 2.00 feet; discharge, 355 second-feet.

June 25, 1926: Gage height, 2.10 feet; discharge, 407 second-feet.

*Daily discharge, in second-feet, of Malheur River near Hope, Oreg., for the year ending September 30, 1926*

| Day | Oct. | Dec. | Jan. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | 184 | | 86 | | 365 | 350 | 273 | |
| 2 | 175 | | 86 | | 360 | 350 | 265 | |
| 3 | 166 | | 80 | | | 341 | 265 | |
| 4 | 160 | | 76 | | | 341 | 265 | 265 |
| 5 | 225 | | 83 | | | 341 | 265 | |
| 6 | 375 | | 76 | | | 341 | 265 | |
| 7 | 208 | 100 | 70 | | | 341 | 265 | |
| 8 | 160 | | 76 | | | 341 | 289 | 265 |
| 9 | 148 | | 76 | | | 328 | 297 | 257 |
| 10 | 115 | | 76 | 420 | 345 | 328 | 314 | 245 |
| 11 | 90 | | 80 | | | 328 | 314 | 245 |
| 12 | 106 | | 70 | | | 318 | 314 | 245 |
| 13 | 90 | 106 | 70 | | | 318 | 314 | 245 |
| 14 | 98 | 106 | ------- | | | 318 | 314 | 245 |
| 15 | 106 | 115 | ------- | | | 318 | 305 | 245 |
| 16 | 101 | 115 | ------- | | | 305 | 332 | |
| 17 | 90 | 115 | ------- | | 390 | 305 | 341 | |
| 18 | 90 | 106 | ------- | 350 | 390 | 305 | 328 | |
| 19 | | 106 | ------- | 365 | 390 | 273 | 314 | |
| 20 | | 106 | ------- | 425 | 400 | 273 | 314 | |
| 21 | | 208 | ------- | 410 | 400 | 273 | 285 | 226 |
| 22 | | 450 | ------- | 410 | 400 | 273 | | |
| 23 | | 106 | ------- | 410 | 400 | 273 | | |
| 24 | | 98 | ------- | 410 | 400 | 265 | | |
| 25 | 90 | 98 | ------- | 410 | 400 | 273 | | |
| 26 | | 90 | ------- | 390 | 400 | 281 | 280 | |
| 27 | | 90 | ------- | 365 | 390 | 273 | | 197 |
| 28 | | 90 | ------- | 360 | 375 | 277 | | 197 |
| 29 | | 90 | ------- | 360 | 360 | 273 | | 197 |
| 30 | | 86 | ------- | 355 | 350 | 273 | | 197 |
| 31 | | 86 | ------- | 355 | ------- | 273 | | ------- |

NOTE.—Because of unsatisfactory operation of water-stage recorder, daily discharge June 23–24 and mean discharge for periods indicated by braces interpolated or estimated by comparison with records for other gaging stations in Malheur Basin.

*Monthly discharge of Malheur River near Hope, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 375 | ------- | 124 | 7,620 |
| December | 450 | ------- | 115 | 7,070 |
| January 1–13 | ------- | ------- | 77.3 | 1,950 |
| May | ------- | ------- | 404 | 24,800 |
| June | 400 | ------- | 367 | 21,800 |
| July | 350 | 265 | 305 | 18,800 |
| August | 341 | 265 | 292 | 18,000 |
| September | ------- | 197 | 237 | 14,100 |

### MALHEUR RIVER BELOW NEVADA DAM, AT VALE, OREG.

LOCATION.—In SW. ¼ sec. 21, T. 18 S., R. 45 E., 300 feet below Nevada Dam and head gate of Nevada Canal and 1½ miles below Vale, Malheur County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 17 to September 30, 1926. Records for station at Vale, 1½ miles upstream, March 20, 1890, to March 31, 1907; May 29, 1908, to October 15, 1914; and March 20 to September 30, 1919, comparable except for flow of Nevada Canal during irrigation season.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by H. G. Kennard.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Control at riffle 200 feet below gage composed of gravel and rock reef; permanent except when affected by aquatic growth.

EXTREMES OF DISCHARGE.—Maximum discharge recorded during period, 132 second-feet 8 to 10 a. m. September 5 (gage height, 1.13 feet); minimum discharge, 11 second-feet July 1 (gage height, 0.30 foot).

DIVERSIONS.—Several important diversions for irrigation above station; Brosnan ditch, 10 miles downstream, only diversion below.

REGULATION.—Flow controlled to a large extent by Warmsprings Dam 80 miles upstream.

ACCURACY.—Stage-discharge relation not permanent; affected by aquatic growth on control June 25 to September 30. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph. Shifting-control method used June 25 to September 30, on basis of discharge measurements June 24, August 7, September 4, and 30. Records good.

COOPERATION.—Records furnished by State engineer of Oregon.

*Discharge measurements of Malheur River below Nevada Dam, at Vale, Oreg., during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 19 | 0.42 | 25.5 | Sept. 4 | 1.10 | 123 |
| June 24 | .62 | 51 | Sept. 30 | 1.02 | 95 |
| Aug. 7 | .60 | 20.3 | | | |

*Daily discharge, in second-feet, of Malheur River below Nevada Dam, at Vale, Oreg., for the year ending September 30, 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 66 | 11 | 21 | 100 | 16 | ------ | 59 | 68 | 36 | 64 |
| 2 | ------ | 93 | 12 | 21 | 105 | 17 | 28 | 65 | 70 | 38 | 74 |
| 3 | ------ | 91 | 12 | 24 | 121 | 18 | 30 | 70 | 68 | 49 | 98 |
| 4 | ------ | 63 | 22 | 26 | 118 | 19 | 24 | 49 | 63 | 59 | 108 |
| 5 | ------ | 63 | 52 | 15 | 130 | 20 | 39 | 43 | 39 | 76 | 108 |
| 6 | ------ | 63 | 58 | 17 | 124 | 21 | 45 | 45 | 35 | 74 | 107 |
| 7 | ------ | 66 | 68 | 18 | 116 | 22 | 56 | 56 | 31 | 61 | 106 |
| 8 | ------ | 52 | 80 | 22 | 110 | 23 | 58 | 49 | 28 | 72 | 105 |
| 9 | ------ | 41 | 76 | 52 | 88 | 24 | 70 | 52 | 28 | 72 | 105 |
| 10 | ------ | 38 | 88 | 51 | 82 | 25 | 63 | 51 | 32 | 76 | 108 |
| 11 | ------ | 38 | 100 | 49 | 68 | 26 | 56 | 51 | 33 | 80 | 108 |
| 12 | ------ | 39 | 98 | 49 | 61 | 27 | 49 | 43 | 31 | 64 | 108 |
| 13 | ------ | 43 | 86 | 49 | 64 | 28 | 30 | 27 | 28 | 74 | 105 |
| 14 | ------ | 51 | 88 | 49 | 66 | 29 | 35 | 16 | 32 | 76 | 96 |
| 15 | ------ | 54 | 76 | 48 | 70 | 30 | 38 | 13 | 26 | 76 | 96 |
| | | | | | | 31 | 46 | ------ | 23 | 82 | ------ |

NOTE.—Because of unsatisfactory operation of water-stage recorder discharge interpolated May 25–26, June 16–17, and Aug. 12–13.

*Monthly discharge of Malheur River below Nevada Dam, at Vale, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May 17–31 | 70 | 24 | 44.5 | 1,320 |
| June | 93 | 13 | 51.7 | 3,080 |
| July | 100 | 11 | 50.4 | 3,100 |
| August | 82 | 15 | 50.8 | 3,120 |
| September | 130 | 61 | 97.3 | 5,790 |
| The period | 130 | 11 | ---------- | 16,400 |

### NORTH FORK OF MALHEUR RIVER NEAR BEULAH, OREG.

LOCATION.—In SE. ¼ sec. 22, T. 19 S., R. 37 E., 1 mile below Beulah, Malheur County, and 14 miles north of Juntura.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—June 26 to September 30, 1926. Records for station near Beulah, about 6 miles downstream, March 21, 1909, to June 30, 1912, and November 13, 1913, to July 25, 1914, give comparable results. Record for station at Juntura, May 21, 1919, to September 30, 1920, give results considerably less during irrigation season.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by Jack MacCumber.

DISCHARGE MEASUREMENTS.—Made by wading or from cable near gage.

CHANNEL AND CONTROL.—Bed composed of coarse gravel and large boulders. Control is riffle 400 feet below gage; not subject to shift. Banks high and not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage during period June 26 to September 30, from water-stage recorder, 0.97 foot at 10 a. m. September 30 (discharge, 45 second-feet); minimum stage, 0.53 foot at 10 p. m. July 30 (discharge, 14 second-feet).

ICE.—None during period of record.

DIVERSIONS.—Only a small quantity diverted for irrigation above station; below, practically entire summer flow is diverted above Juntura.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent. Rating curve fairly well defined by 13 discharge measurements in 1926 and 1927 ranging between 40 and 500 second-feet; extended above and below these limits. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained from recorder graph by inspection. Records good except those for daily discharge below 25 second-feet, which are fair.

COOPERATION.—Records furnished by State engineer of Oregon.

The following discharge measurement was made:

June 26, 1926: Gage height, 0.92 foot; discharge, 41.3 second-feet.

*Daily discharge, in second-feet, of North Fork of Malheur River near Beulah, Oreg., for the year ending September 30, 1926*

| Day | June | July | Aug. | Sept. | Day | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | 29 | 15 | 30 | 16 | | 29 | 23 | 38 |
| 2 | | 27 | 16 | 30 | 17 | | 28 | 22 | 38 |
| 3 | | 28 | 16 | 30 | 18 | | 28 | 25 | 38 |
| 4 | | 36 | 16 | 29 | 19 | | 28 | 26 | 38 |
| 5 | | 35 | 19 | 28 | 20 | | 28 | 28 | 38 |
| 6 | | 33 | 21 | 29 | 21 | | 29 | 28 | 38 |
| 7 | | 36 | 22 | 31 | 22 | | 28 | 31 | 89 |
| 8 | | 37 | 25 | 31 | 23 | | 26 | 30 | 39 |
| 9 | | 33 | 25 | 31 | 24 | | 25 | 27 | 38 |
| 10 | | 35 | 25 | 31 | 25 | | 24 | 24 | 40 |
| 11 | | 31 | 25 | 31 | 26 | 38 | 23 | 22 | 41 |
| 12 | | 30 | 24 | 32 | 27 | 38 | 21 | 23 | 42 |
| 13 | | 30 | 22 | 35 | 28 | 36 | 22 | 24 | 42 |
| 14 | | 31 | 22 | 35 | 29 | 35 | 16 | 25 | 42 |
| 15 | | 31 | 22 | 36 | 30 | 28 | 14 | 28 | 42 |
| | | | | | 31 | | 14 | 31 | |

*Monthly discharge of North Fork of Malheur River near Beulah, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| June 26–30 | 38 | 28 | 35.0 | 347 |
| July | 37 | 14 | 27.9 | 1,720 |
| August | 31 | 15 | 23.6 | 1,450 |
| September | 42 | 28 | 35.4 | 2,110 |
| The period | | | | 5,630 |

### WILLOW CREEK NEAR MALHEUR, OREG.

LOCATION.—In sec. 6, T. 14 S., R. 41 E., at Stanfield ranch, half a mile above flow line of Reservoir No. 3 of Willow River Land & Irrigation Co., 2½ miles south of Malheur, Malheur County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—November 20, 1904, to August 14, 1906; March 19, 1910, to August 2, 1911; March 27, 1912, to September 30, 1915; March 1, 1921, to September 30, 1926.

GAGE.—Stevens 8-day water-stage recorder on left bank; inspected by James Minougham.

DISCHARGE MEASUREMENTS.—Made from bridge 200 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed of sand and loose gravel. Control is concrete weir just below gage; reconstructed in November, 1922.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 1.30 feet at 1 a. m. February 26 (discharge, 26 second-feet). No flow October 1–25 and July 6 to September 30.

1904–1906, 1910–1915, 1921–1926: Maximum discharge (computed from cross section and estimated velocities) 1,400 second-feet March 20, 1910. No flow at times.

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Several small diversions above station irrigating a large area of meadowland; Reservoir No. 3 just below. Eldorado ditch, 25 miles above gaging station, diverted no water into Willow Creek in 1926.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined by 14 discharge measurements of which 3 were made during current year and 3 in 1927. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained from recorder graph by inspection except as stated in footnote to daily-discharge table. Records good.

COOPERATION.—Records furnished by State engineer of Oregon.

The following discharge measurements were made:
March 22, 1926: Gage height, 0.96 foot; discharge, 11.0 second-feet.
March 30, 1926: Gage height, 0.43 foot; discharge, 1.6 second-feet.
June 23, 1926: Gage height, 0.15 foot; discharge, 0.1 second-foot.

*Daily discharge, in second-feet, of Willow Creek near Malheur, Oreg., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 2.4 | 3.5 | | | 19.0 | 2.0 | 0.8 | 0.3 | 0.1 |
| 2 | | 1.2 | 2.8 | | | 18.0 | 2.0 | .7 | .3 | .1 |
| 3 | | 1.1 | 2.2 | | | 18.0 | 2.4 | .7 | .3 | .1 |
| 4 | | 1.0 | 2.6 | | | 21.0 | 2.4 | .6 | .3 | .1 |
| 5 | | 1.0 | 3.0 | | | 19.0 | 2.4 | .6 | .2 | .1 |
| 6 | | 1.0 | 2.9 | | 15.0 | 16.0 | 2.4 | .6 | .2 | |
| 7 | | 1.2 | 2.9 | | | 16.0 | 1.7 | .7 | .2 | |
| 8 | | 1.4 | 2.8 | | | 16.0 | 1.9 | 1.0 | .2 | |
| 9 | | 1.6 | 2.9 | | | 18.0 | 1.9 | .7 | .2 | |
| 10 | | 1.6 | 3.0 | | | 16.0 | 1.7 | .6 | .2 | |
| 11 | | 1.6 | 3.0 | | 14.0 | 17.0 | 3.5 | .7 | .2 | |
| 12 | | 1.6 | 2.9 | | 9.2 | 16.0 | 3.2 | 1.0 | .2 | |
| 13 | | 1.6 | 2.9 | | 11.0 | 16.0 | 2.8 | .8 | .2 | |
| 14 | | 2.1 | 2.1 | | 9.2 | 19.0 | 2.6 | .6 | .2 | |
| 15 | | 2.7 | 2.4 | | 8.6 | 17.0 | 2.0 | .6 | .2 | |
| 16 | | 3.2 | 2.2 | 3.0 | 9.2 | 17.0 | 1.9 | .6 | .2 | |
| 17 | | 2.8 | 2.4 | | 9.8 | 16.0 | 2.0 | .5 | .2 | |
| 18 | | 2.4 | 2.6 | | 9.8 | 16.0 | 3.1 | .4 | .2 | |
| 19 | | 2.0 | 2.6 | | 9.2 | 16.0 | 10.0 | .4 | .2 | |
| 20 | | 1.6 | 2.4 | | 9.8 | 14.0 | 4.0 | .4 | .2 | |
| 21 | | 1.5 | 2.7 | | 9.8 | 12.0 | 1.2 | .3 | .2 | |
| 22 | | 1.4 | 3.0 | | 9.8 | 10.0 | 1.0 | .4 | .2 | |
| 23 | | 1.3 | 3.2 | | 9.2 | 7.8 | 1.3 | .4 | .2 | |
| 24 | | 1.6 | 3.2 | | 9.8 | 4.6 | 1.4 | .6 | .2 | |
| 25 | | 2.0 | 3.5 | | 18.0 | 4.3 | 1.6 | .4 | .2 | |
| 26 | 0.3 | 2.4 | 3.2 | | 24.0 | 3.5 | 1.4 | .3 | .2 | |
| 27 | .4 | 2.8 | 3.0 | | 21.0 | 2.9 | 1.2 | .3 | .2 | |
| 28 | .5 | 3.2 | 2.4 | | 20.0 | 2.1 | 1.2 | .3 | .2 | |
| 29 | 2.0 | 3.3 | 2.8 | | | 1.9 | 1.0 | .3 | .2 | |
| 30 | 3.5 | 3.4 | 2.9 | | | 1.7 | .8 | .3 | .2 | |
| 31 | 3.0 | | 2.4 | | | 1.7 | | .3 | | |

NOTE.—Oct. 26 to Dec. 11 daily discharge computed from staff gage readings made three times a week and interpolated for days gage was not read. Braced figures show estimated mean discharge for periods indicated, based on observer's estimates of flow on Jan. 1, 8, 19, 27, Feb. 5 and 8. No flow on days for which no record is given.

*Monthly discharge of Willow Creek near Malheur, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 3.5 | 0 | 0.31 | 19 |
| November | 3.4 | 1.0 | 1.93 | 115 |
| December | 3.5 | 2.1 | 2.79 | 172 |
| January | ---------- | ---------- | [a] 3.0 | 184 |
| February | 24 | 8.6 | 13.3 | 739 |
| March | 21 | 1.7 | 12.7 | 781 |
| April | 3.5 | .8 | 2.27 | 135 |
| May | 1.0 | .3 | .55 | 34 |
| June | .3 | .2 | .21 | 12 |
| July | .1 | 0 | .02 | 1 |
| August | 0 | 0 | ---------- | 0 |
| September | 0 | 0 | ---------- | 0 |
| The year | 24 | 0 | 3.03 | 2,190 |

[a] Estimated.

**WILLOW CREEK RESERVOIR NEAR MALHEUR, OREG.**

LOCATION.—In NE. ¼ sec. 15, T. 14 S., R. 41 E., 5 miles southeast of Malheur, Malheur County.

RECORDS AVAILABLE.—October 1, 1922, to September 30, 1926.

GAGE.—Vertical staff gage in well in dam; read by James Minougham.

EXTREMES OF STAGE.—1923–1926: Maximum stage recorded, 71.53 feet April 14–16, 1923 (contents, 15,670 acre-feet); minimum stage recorded, 1.44 feet September 30, 1926 (contents, estimated at 7 acre-feet).

COOPERATION.—Records furnished by State engineer of Oregon.

This reservoir has a capacity of 50,000 acre-feet, which is in excess of the flow of Willow Creek for any year except one of abnormally high run-off. Water is released during irrigation season to irrigate land near Brogan, 20 miles downstream.

*Monthly stage and contents of Willow Creek Reservoir near Malheur, Oreg., for the year ending September 30, 1926*

| Date | Gage height | Contents | Loss or gain during month | Date | Gage height | Contents | Loss or gain during month |
|---|---|---|---|---|---|---|---|
| | *Feet* | *Acre-feet* | *Acre-feet* | | *Feet* | *Acre-feet* | *Acre-feet* |
| Oct. 31 | 23.43 | 544 | +93 | May 31 | 39.66 | 2,187 | −757 |
| Nov. 30 | 25.31 | 637 | +93 | June 30 | 32.99 | 1,234 | −953 |
| Dec. 31 | 28.25 | 812 | +175 | July 31 | 25.38 | 641 | −593 |
| Jan. 31 | 30.75 | 1,012 | +200 | Aug. 31 | 13.47 | 194 | −447 |
| Feb. 28 | 38.60 | 1,997 | +985 | Sept. 30 | 1.44 | [a] 7 | −187 |
| Mar. 31 | 43.32 | 2,960 | +963 | | | | |
| Apr. 30 | 43.25 | 2,944 | −16 | The year | -------- | ---------- | −444 |

[a] Estimated.

**WILLOW CREEK BELOW RESERVOIR NEAR MALHEUR, OREG.**

LOCATION.—In NE. ¼ sec. 15, T. 14 S., R. 41 E., 300 feet below outlet tunnel from reservoir and 5 miles southeast of Malheur, Malheur County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—October 1, 1920, to September 30, 1926.

GAGE.—Vertical staff gage on right bank at weir 300 feet below outlet tunnel from reservoir; read by James Minougham.

DISCHARGE MEASUREMENTS.—Made by wading 300 feet below gage.

CHANNEL AND CONTROL.—Bed of small gravel. Control is 10-foot rectangular timber weir having a sharp metal crest.

EXTREMES OF DISCHARGE.—1921–1926: Maximum stage recorded, 1.73 feet July 13–26, 1922 (discharge, 83 second-feet). No flow at times.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Staff gage read to hundredths once daily and also after making change in opening of gate in dam. Daily discharge ascertained by applying daily gage reading to rating table or, for days when gate changes were made, by averaging discharges for intervals of the day.

COOPERATION.—Records furnished by State engineer of Oregon.

The following discharge measurements were made:

April 7, 1926: Gage height, 0.13 foot; discharge, 2.0 second-feet.

June 16, 1926: Gage height, 0.61 foot; discharge, 18.1 second-feet.

June 23, 1926: Gage height, 0.44 foot; discharge, 10.4 second-feet.

*Daily discharge, in second-feet, of Willow Creek below reservoir near Malheur, Oreg., for the year ending September 30, 1926*

| Day | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 1 | | 2.2 | 5.3 | 15 | 12 | 11 | 3.8 |
| 2 | | 2.2 | 5.3 | 15 | 12 | 11 | 3.8 |
| 3 | | 2.2 | 7.1 | 13 | 12 | 11 | 3.8 |
| 4 | | 2.2 | 6.7 | 13 | 12 | 10 | 4.0 |
| 5 | | 2.2 | 6.7 | 13 | 12 | 10 | 4.6 |
| 6 | | 2.2 | 6.7 | 13 | 12 | 9.8 | 5.0 |
| 7 | | 2.2 | 6.7 | 13 | 12 | 9.8 | 3.6 |
| 8 | | 2.2 | 6.7 | 13 | 11 | 9.4 | 2.5 |
| 9 | | 2.0 | 6.7 | 13 | 9.8 | 9.4 | 2.5 |
| 10 | | 2.0 | 6.7 | 13 | 7.1 | 9.0 | 2.5 |
| 11 | | 2.0 | 6.7 | 13 | 7.1 | 9.0 | 2.5 |
| 12 | | 2.0 | 6.7 | 13 | 7.1 | 9.0 | 2.5 |
| 13 | | 2.0 | 6.7 | 13 | 7.1 | 9.0 | 2.5 |
| 14 | | 2.0 | 6.7 | 13 | 7.1 | 9.0 | 2.5 |
| 15 | | 2.0 | 6.7 | 13 | 6.1 | 9.0 | 2.5 |
| 16 | | 2.0 | 6.7 | 16 | 4.6 | 8.7 | 2.5 |
| 17 | | 2.0 | 11 | 20 | 4.6 | 6.8 | 2.5 |
| 18 | | 2.0 | 15 | 20 | 4.6 | 3.8 | 2.5 |
| 19 | | 2.0 | 15 | 20 | 4.6 | 3.8 | 2.5 |
| 20 | | 2.0 | 15 | 20 | 4.6 | 3.8 | 2.5 |
| 21 | | 2.0 | 15 | 18 | 4.6 | 3.8 | 3.8 |
| 22 | | 2.0 | 15 | 11 | 4.6 | 3.8 | 6.4 |
| 23 | | 2.0 | 15 | 11 | 5.8 | 4.0 | 6.4 |
| 24 | | 2.0 | 15 | 11 | 7.1 | 4.0 | 6.4 |
| 25 | | 2.0 | 15 | 11 | 7.1 | 4.0 | 6.4 |
| 26 | | 2.2 | 15 | 11 | 7.1 | 4.0 | 7.1 |
| 27 | | 2.2 | 15 | 11 | 7.1 | 4.0 | 7.7 |
| 28 | | 2.2 | 15 | 12 | 9.4 | 4.0 | 8.4 |
| 29 | | 2.2 | 15 | 9.2 | 11 | 4.0 | 7.7 |
| 30 | | 4.0 | 15 | 12 | 11 | 3.8 | 6.4 |
| 31 | 1.3 | | 15 | | 11 | 3.8 | |

NOTE.—No flow on days for which record is not given.

*Monthly discharge of Willow Creek below reservoir near Malheur, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| March | 1.3 | 0.0 | 0.04 | 2 |
| April | 4.0 | 2.0 | 2.15 | 128 |
| May | 15 | 5.3 | 10.5 | 646 |
| June | 20 | 9.2 | 13.7 | 815 |
| July | 12 | 4.6 | 8.23 | 506 |
| August | 11 | 3.8 | 6.95 | 427 |
| September | 8.4 | 2.5 | 4.26 | 253 |
| The year | 20 | 0 | 3.84 | 2,780 |

### SOUTH FORK OF PAYETTE RIVER NEAR GARDEN VALLEY, IDAHO

LOCATION.—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, Boise County.

DRAINAGE AREA.—779 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 15, 1921, to September 30, 1926.

GAGE.—Vertical staff on right bank directly to rear of ranger station; read by Forest Service rangers. On August 3, 1926, gage was reinstalled 2.5 feet upstream and at a datum 0.98 foot lower than former staff. Readings made prior to this date refer to former datum.

DISCHARGE MEASUREMENTS.—Made from cable 30 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of rock overlain with cobbles and gravel. Control formed by well-defined riffle. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.71 feet May 5 (discharge, 3,810 second-feet); minimum stage, 0.40 foot December 30, 31 (discharge, 315 second-feet).

1921–1926: Maximum stage recorded, 6.87 feet June 9, 1921 (discharge, 9,330 second-feet); minimum discharge probably less than 300 second-feet December 18, 1924, following severe drop in temperature when stage-discharge relation was affected by ice.

ICE.—Stage-discharge relation affected by ice during severe winters.

DIVERSIONS.—Practically none above.

REGULATION.—Practically none.

ACCURACY.—Stage-discharge relation unchanged except as affected by ice January 14, 15. Rating curve well defined between 320 and 6,000 second-feet. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table except as indicated in footnote to table of daily discharge. Records good except those for estimated periods, which are fair.

COOPERATION.—Gage-height record furnished by United States Forest Service.

*Discharge measurements of South Fork of Payette River near Garden Valley, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 14 | 0.83 | 558 | May 12 | 2.27 | 1,840 | Aug. 4 | [a] 1.53 | 388 |
| Mar. 11 | .86 | 545 | May 29 | 2.26 | 1,800 | Do | [a] 1.55 | 406 |
| Apr. 19 | 2.80 | 2,370 | June 22 | 1.26 | 864 | | | |

[a] New gage installed Aug. 3, 1926, at datum 0.98 foot lower than former datum.

*Daily discharge, in second-feet, of South Fork of Payette River near Garden Valley, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 525 | 550 | 338 | 438 | 438 | 622 | 2,900 | | 690 | 410 | 438 |
| 2 | | 525 | 1,150 | 360 | 438 | 482 | 558 | 2,740 | | 690 | 410 | 438 |
| 3 | 520 | 525 | 850 | 495 | 438 | 525 | 600 | 2,600 | | 690 | 410 | 400 |
| 4 | | 438 | 650 | 495 | 465 | 558 | 642 | 3,030 | 1,700 | 690 | 385 | |
| 5 | | 438 | 600 | 495 | 438 | 590 | 683 | 3,810 | | 690 | | |
| 6 | | 438 | 550 | 495 | 558 | 558 | 725 | 3,030 | | 690 | 385 | 380 |
| 7 | 580 | 452 | 525 | 438 | 622 | 558 | 795 | 2,740 | | 622 | | |
| 8 | | 465 | 500 | 410 | 558 | 558 | 835 | 2,330 | 1,550 | 835 | 430 | |
| 9 | | 495 | 495 | 410 | 525 | 558 | 918 | 2,070 | | 760 | | |
| 10 | 550 | 495 | 495 | 438 | 495 | 558 | 1,000 | 1,950 | | 690 | 385 | |
| 11 | | 525 | 495 | 410 | 495 | 558 | 1,070 | 1,840 | 1,280 | 622 | | |
| 12 | 625 | 515 | 525 | 385 | 465 | 590 | 1,140 | 1,730 | | 622 | | |
| 13 | | 505 | 510 | 385 | 465 | 590 | 1,340 | 1,730 | | 590 | | |
| 14 | 558 | 495 | 495 | 385 | 465 | 658 | 1,430 | 1,730 | 1,100 | 574 | | 360 |
| 15 | 547 | 495 | 495 | 385 | 438 | 725 | 1,530 | 1,950 | | 558 | 385 | |
| 16 | 536 | 495 | 495 | 438 | 438 | 835 | 1,840 | 1,950 | | 525 | | |
| 17 | 525 | 495 | 485 | 495 | 438 | 835 | 2,200 | 2,200 | 1,020 | 525 | | 385 |
| 18 | 542 | 495 | 475 | 465 | 438 | 760 | 2,330 | 2,200 | | 495 | | 385 |
| 19 | 558 | 438 | 465 | 438 | 438 | 760 | 2,460 | 2,330 | | 495 | 622 | 360 |
| 20 | 558 | 410 | 465 | 355 | 438 | 760 | 2,460 | 2,880 | 1,050 | 465 | 480 | 360 |
| 21 | 558 | 438 | 465 | 410 | 438 | 760 | 2,330 | 2,740 | | 465 | | 360 |
| 22 | 558 | 438 | 465 | 410 | 438 | 760 | 2,070 | 2,600 | 835 | 465 | | 360 |
| 23 | 558 | 385 | 495 | 438 | 410 | 875 | 1,840 | 2,460 | 795 | 465 | 400 | 360 |
| 24 | 558 | 472 | 495 | 410 | 438 | 875 | 1,780 | 2,330 | 795 | 438 | | 360 |
| 25 | 558 | 558 | 495 | 410 | 410 | 818 | 1,730 | 2,070 | 795 | 438 | 385 | |
| 26 | 558 | 560 | 410 | 385 | 410 | 760 | 1,950 | 1,960 | 795 | 438 | 385 | |
| 27 | 558 | 560 | 385 | 410 | 438 | 725 | 2,400 | 1,840 | 760 | 410 | 385 | 365 |
| 28 | 558 | 495 | 355 | 438 | 438 | 690 | 2,880 | 1,840 | 760 | 438 | 385 | |
| 29 | 525 | 465 | 325 | 465 | ------- | 622 | 2,900 | 1,840 | 690 | 438 | 385 | |
| 30 | 525 | 465 | 315 | 465 | ------- | 622 | 3,000 | 1,800 | 690 | 429 | 385 | |
| 31 | 525 | ------- | 315 | 438 | ------- | 690 | ------- | 1,750 | ------- | 419 | 438 | ------ |

NOTE.—Stage-discharge relation affected by ice Jan. 14, 15; gage-height record missing Oct. 1–13, 15, 16, 18, 23, 30, 31, Nov. 2, 3, 7, 12, 13, 17, 18, 24, 26, 27, 30, Dec. 1–9, 13, 17, 18, 24, 25, Jan. 1, 4, Mar. 2, 7, 14, 25, 27, Apr. 3–5, 11, 24, 29, 30, May 1, 11, 26, 30, 31, June 1–21, July 1–4, 14, 30, 31, Aug. 5–9, 11–18, 20–24, 27, 28, Sept. 3–16, 20, 22, 23, 25–30, and gage-height discredited Apr. 27; discharge interpolated or estimated on basis of comparison with flow at station near Banks. Braced figures show mean discharge for periods indicated.

*Monthly discharge of South Fork of Payette River near Garden Valley, Idaho, for the year ending September 30, 1926*

[Drainage area, 779 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | ---------- | ---------- | 552 | 0.709 | 0.82 | 33,900 |
| November | ---------- | 385 | 483 | .620 | .69 | 28,700 |
| December | ---------- | 315 | 509 | .653 | .75 | 31,300 |
| January | 495 | 338 | 426 | .547 | .63 | 26,200 |
| February | 622 | 410 | 461 | .592 | .62 | 25,600 |
| March | 875 | 438 | 666 | .855 | .99 | 41,000 |
| April | 3,000 | 558 | 1,600 | 2.05 | 2.29 | 95,200 |
| May | 3,810 | ---------- | 2,290 | 2.94 | 3.39 | 141,000 |
| June | ---------- | 690 | 1,170 | 1.50 | 1.67 | 69,600 |
| July | 835 | 410 | 560 | .719 | .83 | 34,400 |
| August | ---------- | ---------- | 407 | .522 | .60 | 25,000 |
| September | ---------- | ---------- | 374 | .480 | .54 | 22,300 |
| The year | 3,810 | 315 | 793 | 1.02 | 13.82 | 574,000 |

### SOUTH FORK OF PAYETTE RIVER NEAR BANKS, IDAHO

LOCATION.—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, Boise County.

DRAINAGE AREA.—1,200 square miles (measured on topographic maps).

RECORDS AVAILABLE.—August 19, 1921, to September 30, 1926.

GAGE.—Au continuous water-stage recorder on right bank, installed September 12, 1922; inspected by H. B. Redington.

DISCHARGE MEASUREMENTS.—Made from cable 20 feet below gage.

CHANNEL AND CONTROL.—Bed composed of rock, boulders, and sand. Banks steep. One channel at all stages. Control formed by well-defined rock and boulder riffle, 250 feet below gage; changes infrequently.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 5.50 feet at 6 a. m. May 5 (discharge, 5,600 second-feet); minimum stage, 0.13 foot at noon December 30 (discharge, 322 second-feet).

1921–1926: Maximum stage recorded, 8.70 feet June 7, 1922 (discharge, 9,900 second-feet); minimum stage, that of December 30, 1925. Slightly lower discharge may have occurred during ice periods following unusually cold periods.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—None, except a few small ranch diversions from tributaries in drainage area above.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent except as affected by ice January 10–15 and 26–28. Rating curve well defined between 340 and 8,000 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph except as indicated in footnote to table of daily discharge. Records excellent except during estimated periods, for which they are good.

*Discharge measurements of South Fork of Payette River near Banks, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 15 | 0.82 | 665 | May 11 | 2.98 | 2,410 | June 23 | 1.30 | 987 |
| Mar. 11 | 1.13 | 847 | May 29 | 2.75 | 2,190 | Aug. 5 | .43 | 445 |
| Apr. 20 | 3.82 | 3,400 | | | | | | |

*Daily discharge, in second-feet, of South Fork of Payette River near Banks, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 656 | 596 | 686 | 505 | 515 | 662 | 975 | 3,740 | 1,960 | 828 | 465 | 535 |
| 2 | 632 | 614 | 1,440 | 520 | 520 | 698 | 905 | 3,620 | 1,920 | 809 | 460 | 510 |
| 3 | 620 | 632 | 1,010 | 540 | 515 | 758 | 940 | 3,380 | 1,880 | 776 | 460 | 490 |
| 4 | 614 | 584 | 783 | 602 | 557 | 835 | 940 | 3,620 | 1,830 | 758 | 465 | 475 |
| 5 | 614 | 540 | 722 | 535 | 579 | 884 | 1,010 | 5,040 | 1,880 | 746 | 445 | 465 |
| 6 | 680 | 546 | 686 | 596 | 734 | 849 | 1,160 | 4,110 | 1,880 | 740 | 440 | 455 |
| 7 | 764 | 557 | 632 | 568 | 940 | 809 | 1,240 | 3,620 | 1,780 | 728 | 445 | 460 |
| 8 | 692 | 552 | 584 | 515 | 863 | 822 | 1,360 | 3,140 | 1,740 | 905 | 470 | 460 |
| 9 | 656 | 626 | 562 | 546 | 849 | 863 | 1,570 | 2,860 | 1,650 | 816 | 510 | 455 |
| 10 | 644 | 650 | 552 | | 776 | 863 | 1,700 | 2,580 | 1,570 | 746 | 465 | 440 |
| 11 | 656 | 650 | 602 | | 746 | 863 | 1,780 | 2,460 | 1,480 | 704 | 450 | 435 |
| 12 | 764 | 662 | 650 | 500 | 698 | 891 | 1,920 | 2,360 | 1,400 | 698 | 440 | 430 |
| 13 | 758 | 644 | 638 | | 662 | 905 | 2,110 | 2,310 | 1,320 | 668 | 435 | 422 |
| 14 | 704 | 584 | 525 | | 614 | 1,010 | 2,260 | 2,310 | 1,280 | 644 | 430 | 417 |
| 15 | 662 | 562 | 490 | | 596 | 1,160 | 2,520 | 2,410 | 1,240 | 620 | 426 | 417 |

*Daily discharge, in second-feet, of South Fork of Payette River near Banks, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 644 | 620 | 638 | 557 | 644 | 1,360 | 2,920 | 2,520 | 1,240 | 602 | 422 | 435 |
| 17 | 632 | 626 | 602 | 568 | 614 | 1,440 | 3,140 | 2,630 | 1,160 | 596 | 422 | 475 |
| 18 | 626 | 608 | 602 | 557 | 608 | 1,320 | 3,500 | 2,680 | 1,120 | 579 | 495 | 455 |
| 19 | 620 | 552 | 602 | 520 | 596 | 1,200 | 3,740 | 2,800 | 1,120 | 568 | 710 | 445 |
| 20 | 608 | 495 | 568 | 480 | 626 | 1,200 | 3,500 | 3,260 | 1,280 | 552 | 602 | 440 |
| 21 | 608 | 500 | 546 | 495 | 532 | 1,200 | 3,260 | 3,500 | 1,160 | 546 | 530 | 435 |
| 22 | 608 | 475 | 579 | 510 | 620 | 1,240 | 3,030 | 3,140 | 1,010 | 540 | 485 | 435 |
| 23 | 602 | 475 | 620 | 475 | 602 | 1,360 | 2,740 | 3,030 | 975 | 535 | 470 | 440 |
| 24 | 596 | 552 | 644 | 485 | 602 | 1,440 | 2,520 | 2,970 | 975 | 530 | 455 | 445 |
| 25 | 602 | 650 | 602 | 510 | 596 | 1,360 | 2,520 | 2,680 | 940 | 515 | 445 | 445 |
| 26 | 608 | 710 | 546 | } | 584 | 1,240 | 2,740 | 2,410 | 940 | 510 | 445 | 450 |
| 27 | 602 | 650 | 500 | 490 | 596 | 1,160 | 2,920 | 2,260 | 898 | 500 | 470 | 450 |
| 28 | 608 | 608 | 450 | } | 626 | 1,090 | 3,140 | 2,160 | 877 | 495 | 455 | 445 |
| 29 | 638 | 584 | 422 | 579 | ------- | 1,010 | 3,380 | 2,160 | 822 | 490 | 440 | 445 |
| 30 | 620 | 590 | 366 | 568 | ------- | 975 | 3,740 | 2,160 | 828 | 485 | 455 | 455 |
| 31 | 602 | ------- | 399 | 515 | ------- | 1,010 | ------- | 2,060 | ------- | 475 | 562 | ------ |

NOTE.—Stage-discharge relation affected by ice Jan. 10-15, 26-28; discharge estimated by comparison with flow at Garden Valley and Horseshoe Bend. Braced figures show mean discharge for periods indicated.

*Monthly discharge of South Fork of Payette River near Banks, Idaho, for the year ending September 30, 1926*

[Drainage area, 1,200 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 764 | 596 | 643 | 0.536 | 0.62 | 39,500 |
| November | 710 | 475 | 590 | .492 | .55 | 35,100 |
| December | 1,440 | 366 | 621 | .518 | .60 | 38,200 |
| January | 602 | ---------- | 523 | .436 | .50 | 32,200 |
| February | 940 | 515 | 647 | .539 | .56 | 35,900 |
| March | 1,440 | 662 | 1,050 | .875 | 1.01 | 64,600 |
| April | 3,740 | 905 | 2,310 | 1.92 | 2.14 | 137,000 |
| May | 5,040 | 2,060 | 2,900 | 2.42 | 2.79 | 178,000 |
| June | 1,960 | 822 | 1,340 | 1.12 | 1.25 | 79,700 |
| July | 905 | 475 | 636 | .530 | .61 | 39,100 |
| August | 710 | 422 | 473 | .394 | .45 | 29,100 |
| September | 535 | 417 | 452 | .377 | .42 | 26,900 |
| The year | 5,040 | 366 | 1,020 | .850 | 11.50 | 735,000 |

### PAYETTE RIVER AT BANKS, IDAHO

LOCATION.—In SE. ¼ sec. 29, T. 9 N., R. 3 E., three-eighths mile below confluence of North and South Forks of Payette River and one-fifth mile above railroad depot at Banks, Boise County.

DRAINAGE AREA.—2,120 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 31, 1922, to September 30, 1926.

GAGE.—Vertical staff in two sections on right bank; read by H. B. Redington.

DISCHARGE MEASUREMENTS.—Made from cable 125 feet below high-water gage.

CHANNEL AND CONTROL.—Bed composed of sand, gravel, and boulders. One channel at all stages. Control of large boulders; well defined and practically permanent prior to December 22, 1924, after which time several changes occurred by filling in and washing out of material on control caused by highway excavation on side hill above on left bank.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 9.15 feet May 5 (discharge, 9,890 second-feet); minimum stage, 1.96 feet September 15 (discharge, 620 second-feet).

1922–1926: Maximum stage recorded, 12.54 feet June 7 and 8, 1922 (discharge, 18,900 second-feet); minimum discharge, 455 second-feet December 18, 1924.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Several diversions for irrigation from tributaries above station.

REGULATION.—Spring and summer flow slightly affected by regulation at outlet of Payette Lake, 58 miles upstream.

ACCURACY.—Stage-discharge relation changed slightly at low stages following high water. Two rating curves used; the first applicable October 1 to July 5 is well defined between 900 and 8,000 second-feet; the second, applicable after July 5, is well defined between 700 and 8,000 second-feet, above which it is extended parallel to former curve. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table except as indicated in footnote to table of daily discharge. Records good.

*Discharge measurements of Payette River at Banks, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 15 | 2.77 | 994 | May 11 | 6.99 | 5,600 | Aug. 5 | 2.44 | 771 |
| Mar. 13 | 3.52 | 1,440 | May 29 | 5.88 | 3,930 | Sept. 9 | 2.33 | 737 |
| Apr. 21 | 7.50 | 6,490 | June 22 | 4.12 | 1,920 | | | |

*Daily discharge, in second-feet, of Payette River at Banks, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 905 | 930 | 1,100 | 730 | 838 | 1,160 | 2,320 | 7,790 | 3,550 | 1,150 | 782 | 830 |
| 2 | 905 | 955 | 2,620 | 750 | 815 | 1,180 | 2,030 | 7,590 | 3,310 | 1,080 | 782 | 830 |
| 3 | 882 | 930 | 1,560 | 882 | 815 | 1,280 | 2,030 | 7,390 | 3,200 | 1,060 | 782 | 782 |
| 4 | 882 | 905 | 1,420 | 930 | 905 | 1,350 | 2,120 | 8,610 | 3,080 | 1,180 | 782 | 760 |
| 5 | 882 | 838 | 1,280 | 860 | 882 | 1,380 | 2,420 | 9,890 | 2,970 | 1,250 | 782 | 760 |
| 6 | 1,060 | 860 | 1,180 | 982 | 1,250 | 1,350 | 2,950 | 8,820 | 2,860 | 1,250 | 760 | 740 |
| 7 | 1,060 | 795 | 1,180 | 905 | 1,380 | 1,280 | 3,170 | 8,200 | 2,860 | 1,220 | 760 | 740 |
| 8 | 982 | 882 | 1,120 | 870 | 1,760 | 1,320 | 3,280 | 7,400 | 2,750 | 1,470 | 782 | 740 |
| 9 | 982 | 955 | 1,100 | 850 | 1,850 | 1,380 | 3,520 | 6,830 | 2,640 | 1,360 | 830 | 740 |
| 10 | 955 | 1,010 | 1,060 | 840 | 1,720 | 1,350 | 3,640 | 5,920 | 2,430 | 1,320 | 760 | 720 |
| 11 | 1,040 | 1,010 | 1,120 | 840 | 1,640 | 1,420 | 3,770 | 5,580 | 2,220 | 1,080 | 720 | 702 |
| 12 | 1,120 | 1,010 | 1,180 | 820 | 1,520 | 1,490 | 3,900 | 5,250 | 2,120 | 995 | 720 | 685 |
| 13 | 1,160 | 1,010 | 1,220 | 790 | 1,420 | 1,490 | 4,170 | 4,980 | 1,940 | 910 | 720 | 670 |
| 14 | 1,040 | 905 | 982 | 750 | 1,350 | 1,720 | 4,310 | 4,930 | 1,800 | 855 | 702 | 642 |
| 15 | 982 | 955 | 775 | 830 | 1,250 | 2,120 | 4,600 | 4,980 | 1,670 | 855 | 685 | 620 |
| 16 | 930 | 955 | 1,100 | 838 | 1,220 | 2,520 | 5,150 | 5,250 | 1,670 | 938 | 702 | 670 |
| 17 | 930 | 982 | 1,100 | 882 | 1,160 | 2,730 | 5,550 | 5,410 | 1,580 | 938 | 720 | 740 |
| 18 | 930 | 930 | 1,160 | 860 | 1,120 | 2,520 | 5,890 | 5,580 | 1,540 | 938 | 882 | 670 |
| 19 | 905 | 882 | 1,100 | 838 | 1,120 | 2,420 | 6,620 | 5,920 | 1,840 | 910 | 1,080 | 670 |
| 20 | 930 | 795 | 955 | 882 | 1,120 | 2,620 | 6,430 | 6,640 | 1,940 | 910 | 995 | 685 |
| 21 | 905 | 755 | 955 | 838 | 1,100 | 2,730 | 6,250 | 6,640 | 1,940 | 910 | 855 | 670 |
| 22 | 905 | 775 | 982 | 838 | 1,100 | 2,840 | 5,890 | 6,460 | 1,940 | 882 | 760 | 655 |
| 23 | 905 | 795 | 1,160 | 838 | 1,060 | 3,060 | 5,550 | 6,280 | 1,800 | 910 | 760 | 670 |
| 24 | 882 | 882 | 1,220 | 838 | 1,060 | 3,170 | 5,400 | 6,100 | 1,670 | 910 | 760 | 670 |
| 25 | 905 | 982 | 1,120 | 838 | 1,040 | 2,950 | 5,400 | 5,580 | 1,580 | 910 | 720 | 670 |
| 26 | 905 | 982 | 1,010 | 800 | 1,040 | 2,730 | 5,550 | 4,480 | 1,500 | 910 | 720 | 670 |
| 27 | 838 | 982 | 860 | 780 | 1,060 | 2,520 | 5,890 | 4,060 | 1,360 | 910 | 740 | 670 |
| 28 | 905 | 930 | 800 | 790 | 1,120 | 2,420 | 6,250 | 4,060 | 1,250 | 855 | 720 | 655 |
| 29 | 955 | 882 | 760 | 982 | ------ | 2,220 | 6,810 | 3,930 | 1,080 | 830 | 720 | 655 |
| 30 | 905 | 955 | 740 | 930 | ------ | 2,030 | 7,390 | 3,800 | 1,150 | 782 | 740 | 670 |
| 31 | 905 | ------ | 700 | 860 | ------ | 2,320 | ------ | 3,670 | ------ | 760 | 910 | ------ |

NOTE.—Discharge estimated on basis of flow near Horseshoe Bend, Dec. 28–31, Jan. 1–2, 8–15, 26–28, Apr. 16, 24, 25; slightly affected by ice on estimated days in December and January. Interpolated Nov. 26 and Dec. 25; gage not read.

*Monthly discharge of Payette River at Banks, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 1,160 | 838 | 948 | 58,300 |
| November | 1,010 | 755 | 914 | 54,400 |
| December | 2,620 | 700 | 1,120 | 68,900 |
| January | 982 | 730 | 847 | 52,100 |
| February | 1,850 | 815 | 1,200 | 66,600 |
| March | 3,170 | 1,160 | 2,030 | 125,000 |
| April | 7,390 | 2,030 | 4,610 | 274,000 |
| May | 9,890 | 3,670 | 6,060 | 373,000 |
| June | 3,550 | 1,080 | 2,110 | 126,000 |
| July | 1,470 | 760 | 1,010 | 62,100 |
| August | 1,080 | 685 | 778 | 47,800 |
| September | 830 | 620 | 702 | 41,800 |
| The year | 9,890 | 620 | 1,860 | 1,350,000 |

**PAYETTE RIVER NEAR HORSESHOE BEND, IDAHO**

LOCATION.—In 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, Boise County.

DRAINAGE AREA.—2,230 square miles (measured on topographic and Land Office maps).

RECORDS AVAILABLE.—November 23, 1912, to September 30, 1916; July 27, 1919, to September 30, 1926. February 13, 1906, to November 22, 1912, at site in sec. 2, 2 miles upstream. Two small creeks enter between the two stations.

GAGE.—Au water-stage recorder on right bank, installed November 29, 1924; inspected by L. W. Goodin.

DISCHARGE MEASUREMENTS.—Made from cable 200 feet below gage.

CHANNEL AND CONTROL.—Bed of stream composed of cobbles and coarse gravel with a few large rocks. Control practically permanent. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 6.04 feet at 9 a. m. May 5 (discharge, 9,920 second-feet); minimum discharge, 565 second-feet 5 to 7 a. m. September 16.

1906–1916, 1919–1926: Maximum stage recorded, 9.57 feet at 1 p. m. June 9, 1921 (discharge, 22,100 second-feet); minimum stage recorded, 0.30 foot at 10 p. m. December 18, 1924 (discharge, 365 second-feet).

ICE.—Stage-discharge relation not seriously affected by ice.

DIVERSIONS.—Several diversions for irrigation from tributaries above station; none between this station and the one at Banks.

REGULATION.—During irrigation season, flow past station slightly affected by regulation at outlet of Payette Lake 70 miles upstream.

ACCURACY.—Stage-discharge relation changed slightly at low stages following high water of June 16. Two rating curves used well defined between 600 and 21,000 second-feet; the first applicable prior to June 16, and the other applicable thereafter. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph. Records excellent.

Between the stations at Banks and Horseshoe Bend the river leaves the granite and enters the lava, and a loss in flow occurs which ranges from 2 to nearly 4 per cent of the mean annual flow.

*Discharge measurements of Payette River near Horseshoe Bend, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 2 | 1.18 | 861 | May 11 | 4.07 | 5,270 | June 23 | 1.98 | 1,670 |
| Mar. 11 | 1.63 | 1,290 | May 19 | 4.19 | 5,460 | July 14 | 1.20 | 885 |
| Apr. 19 | 4.64 | 6,470 | May 30 | 3.28 | 3,700 | | | |

*Daily discharge, in second-feet, of Payette River near Horseshoe Bend, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 894 | 860 | 994 | 683 | 817 | 1,090 | 2,200 | 7,300 | 3,460 | 1,100 | 756 | 816 |
| 2 | 876 | 868 | 1,940 | 690 | 817 | 1,130 | 2,000 | 7,300 | 3,280 | 1,060 | 772 | 780 |
| 3 | 851 | 894 | 1,740 | 792 | 842 | 1,190 | 1,940 | 7,300 | 2,960 | 1,040 | 748 | 764 |
| 4 | 842 | 851 | 1,370 | 851 | 921 | 1,280 | 1,940 | 7,300 | 2,720 | 1,190 | 772 | 740 |
| 5 | 834 | 792 | 1,260 | 817 | 903 | 1,330 | 2,200 | 9,370 | 2,720 | 1,190 | 748 | 716 |
| 6 | 921 | 778 | 1,170 | 921 | 1,300 | 1,310 | 2,640 | 8,830 | 2,640 | 1,190 | 732 | 708 |
| 7 | 1,040 | 770 | 1,150 | 894 | 1,510 | 1,260 | 2,880 | 8,050 | 2,570 | 1,160 | 740 | 700 |
| 8 | 975 | 755 | 1,100 | 808 | 1,550 | 1,260 | 3,120 | 7,300 | 2,500 | 1,360 | 756 | 708 |
| 9 | 948 | 851 | 1,020 | 778 | 1,740 | 1,310 | 3,280 | 6,820 | 2,420 | 1,320 | 816 | 700 |
| 10 | 930 | 930 | 994 | 770 | 1,700 | 1,320 | 3,460 | 5,900 | 2,280 | 1,260 | 764 | 686 |
| 11 | 921 | 966 | 1,020 | 778 | 1,620 | 1,330 | 3,630 | 5,360 | 2,000 | 1,140 | 716 | 665 |
| 12 | 1,020 | 984 | 1,110 | 748 | 1,490 | 1,380 | 3,810 | 5,050 | 1,940 | 1,000 | 693 | 644 |
| 13 | 1,080 | 957 | 1,120 | 711 | 1,380 | 1,430 | 3,990 | 4,850 | 1,810 | 910 | 686 | 630 |
| 14 | 1,020 | 903 | 994 | 683 | 1,250 | 1,580 | 4,180 | 4,750 | 1,710 | 861 | 679 | 624 |
| 15 | 957 | 834 | 792 | 778 | 1,180 | 1,870 | 4,360 | 4,850 | 1,620 | 798 | 665 | 606 |
| 16 | 921 | 903 | 984 | 817 | 1,190 | 2,200 | 4,850 | 5,050 | 1,580 | 880 | 665 | 594 |
| 17 | 894 | 921 | 1,050 | 851 | 1,120 | 2,500 | 5,360 | 5,160 | 1,550 | 910 | 686 | 672 |
| 18 | 885 | 903 | 1,100 | 851 | 1,080 | 2,420 | 5,790 | 5,360 | 1,480 | 910 | 748 | 665 |
| 19 | 876 | 851 | 1,070 | 800 | 1,070 | 2,350 | 6,350 | 5,470 | 1,580 | 900 | 1,010 | 644 |
| 20 | 885 | 778 | 994 | 770 | 1,090 | 2,420 | 6,350 | 6,010 | 1,870 | 870 | 950 | 658 |
| 21 | 876 | 704 | 912 | 778 | 1,080 | 2,500 | 6,120 | 6,350 | 1,740 | 861 | 880 | 644 |
| 22 | 860 | 676 | 939 | 792 | 1,060 | 2,570 | 5,790 | 6,120 | 1,810 | 890 | 772 | 630 |
| 23 | 851 | 655 | 1,030 | 755 | 1,020 | 2,880 | 5,580 | 6,010 | 1,720 | 861 | 716 | 630 |
| 24 | 851 | 740 | 1,150 | 778 | 1,030 | 2,960 | 5,260 | 5,900 | 1,600 | 890 | 708 | 637 |
| 25 | 851 | 868 | 1,110 | 800 | 1,010 | 2,880 | 5,260 | 5,580 | 1,520 | 910 | 693 | 630 |
| 26 | 860 | 1,000 | 975 | 740 | 1,000 | 2,640 | 5,360 | 4,750 | 1,440 | 900 | 686 | 637 |
| 27 | 834 | 957 | 834 | 732 | 1,010 | 2,420 | 5,680 | 4,080 | 1,370 | 880 | 708 | 637 |
| 28 | 842 | 921 | 718 | 740 | 1,050 | 2,350 | 6,010 | 3,900 | 1,260 | 852 | 693 | 630 |
| 29 | 903 | 885 | 711 | 903 | ------- | 2,140 | 6,580 | 3,720 | 1,160 | 816 | 665 | 624 |
| 30 | 876 | 903 | 669 | 903 | ------- | 2,000 | 7,060 | 3,720 | 1,080 | 789 | 686 | 630 |
| 31 | 860 | ------- | 637 | 842 | ------- | 2,070 | ------- | 3,540 | ------- | 748 | 798 | ------- |

*Monthly discharge of Payette River near Horseshoe Bend, Idaho, for the year ending September 30, 1926*

[Drainage area, 2,230 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 1,080 | 834 | 904 | 0.405 | 0.47 | 55,600 |
| November | 1,000 | 655 | 855 | .383 | .43 | 50,900 |
| December | 1,940 | 637 | 1,050 | .471 | .54 | 64,600 |
| January | 921 | 683 | 792 | .355 | .41 | 48,700 |
| February | 1,740 | 817 | 1,170 | .525 | .55 | 65,000 |
| March | 2,960 | 1,090 | 1,920 | .861 | .99 | 118,000 |
| April | 7,060 | 1,940 | 4,430 | 1.99 | 2.22 | 264,000 |
| May | 9,370 | 3,540 | 5,840 | 2.62 | 3.02 | 359,000 |
| June | 3,460 | 1,080 | 1,980 | .888 | .99 | 118,000 |
| July | 1,360 | 748 | 982 | .440 | .51 | 60,400 |
| August | 1,010 | 665 | 745 | .334 | .39 | 45,800 |
| September | 816 | 594 | 668 | .300 | .33 | 39,700 |
| The year | 9,370 | 594 | 1,780 | .798 | 10.85 | 1,290,000 |

### PAYETTE RIVER NEAR EMMETT, IDAHO

LOCATION.—In sec. 22, T. 7 N., R. 1 W., three-eighths mile below Black Canyon Dam and 5 miles northeast of Emmett, Gem County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—June 11, 1925, to September 30, 1926.

GAGE.—Au water-stage recorder on right bank, installed June 11, 1925; inspected by C. A. Harris.

DISCHARGE MEASUREMENTS.—Made from cable 800 feet above gage.

CHANNEL AND CONTROL.—Bed composed of rock and coarse gravel. One channel at all stages. Control formed by well-defined rock and gravel riffle; may shift.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 9.29 feet at 12.10 p. m. May 5 (discharge, 14,400 second-feet); minimum stage, 1.17 feet from 3 to 4.30 p. m. March 3 (discharge, 56 second-feet).

1925–1926: Maximum and minimum stages recorded occurred during 1926.

ICE.—Stage-discharge relation probably affected by ice during severe winters.

DIVERSIONS.—Numerous canals divert water for irrigation above and below station.

REGULATION.—Flow past gage affected at times by operation of gates in Black Canyon Dam and by storage of water in Payette Lake.

ACCURACY.—Stage-discharge relation probably changed slightly November 18 and May 5. Three rating curves, well defined between 250 and 6,500 second-feet, used, respectively, November 19 to May 5, May 6 to September 30, and October 1 to November 18. Operation of water-stage recorder satisfactory except for short period owing to broken pencil. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph. Records excellent below 6,500 second-feet; others good.

COOPERATION.—Gage-height record furnished by United States Bureau of Reclamation.

*Discharge measurements of Payette River near Emmett, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Nov. 17 | 2.70 | 943 | Jan. 16 | 2.64 | 851 | May 13 | 5.50 | 4,640 |
| Nov. 19 | 1.92 | 329 | Mar. 10 | 3.25 | 1,560 | May 19 | 5.75 | 5,090 |
| Do | 2.21 | 511 | Apr. 2 | 3.96 | 2,310 | June 17 | 2.93 | 1,230 |
| Do | 3.02 | 1,190 | Do | 3.93 | 2,340 | June 25 | 2.93 | 1,230 |
| Nov. 20 | 3.33 | 1,540 | Do | 3.91 | 2,230 | July 1 | 2.37 | 694 |
| Do | 3.68 | 1,930 | Apr. 19 | 6.24 | 6,130 | July 14 | 2.10 | 458 |
| Jan. 16 | 2.30 | 584 | Apr. 28 | 6.13 | 5,920 | Sept. 14 | 1.99 | 378 |

*Daily discharge, in second-feet, of Payette River near Emmett, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 695 | 883 | 759 | 610 | | 1,330 | 2,040 | 7,400 | 3,090 | 675 | 400 | 484 |
| 2 | 687 | 892 | 1,790 | 618 | | 1,490 | 2,100 | 7,640 | 2,950 | 692 | 408 | 539 |
| 3 | 671 | 909 | 2,360 | 517 | | 510 | 1,850 | 7,400 | 2,690 | 675 | 422 | 539 |
| 4 | 671 | 918 | 1,390 | 482 | 1,000 | 62 | 1,850 | 7,400 | 2,310 | 675 | 438 | 484 |
| 5 | 663 | 874 | 1,560 | 545 | | 68 | 2,100 | 10,300 | 2,310 | 737 | 452 | 476 |
| 6 | 735 | 824 | 1,140 | 751 | | 70 | 2,700 | 10,000 | 2,250 | 764 | 452 | 460 |
| 7 | 927 | 815 | 1,380 | 1,050 | | 66 | 2,980 | 8,650 | 2,250 | 773 | 452 | 430 |
| 8 | 918 | 799 | 1,140 | 1,120 | 2,490 | 329 | 3,140 | 8,140 | 2,190 | 810 | 452 | 415 |
| 9 | 866 | 824 | 1,030 | 936 | 2,770 | 1,590 | 3,440 | 7,160 | 2,190 | 945 | 460 | 415 |
| 10 | 840 | 927 | 1,280 | 807 | 2,100 | 1,500 | 3,510 | 6,480 | 2,010 | 915 | 484 | 415 |

*Daily discharge, in second-feet, of Payette River near Emmett, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 832 | 1,050 | 1,160 | 874 | 2,360 | 1,340 | 3,580 | 5,420 | 1,780 | 886 | 484 | 422 |
| 12 | 918 | 1,040 | 1,160 | 775 | 1,690 | 1,280 | 3,980 | 5,030 | 1,510 | 764 | 476 | 385 |
| 13 | 1,030 | 1,030 | 1,160 | 588 | 1,690 | 1,480 | 4,060 | 4,480 | 1,510 | 539 | 438 | 378 |
| 14 | 990 | 990 | 1,370 | 552 | 1,970 | 1,560 | 3,210 | 4,480 | 1,460 | 484 | 392 | 378 |
| 15 | 927 | 909 | 1,200 | 538 | 832 | 1,910 | 4,220 | 4,480 | 1,350 | 452 | 363 | 363 |
| 16 | 918 | 918 | 918 | 545 | 1,080 | 2,490 | 4,660 | 4,570 | 1,220 | 415 | 363 | 363 |
| 17 | 918 | 963 | 735 | | 1,430 | 2,770 | 5,220 | 4,840 | 1,220 | 452 | 363 | 363 |
| 18 | 892 | 963 | 918 | | 1,180 | 2,910 | 5,830 | 5,030 | 1,140 | 515 | 371 | 363 |
| 19 | 874 | 815 | 1,300 | | 1,180 | 2,490 | 6,480 | 5,030 | 1,040 | 531 | 539 | 371 |
| 20 | 883 | 945 | 1,070 | | 1,310 | 2,420 | 6,700 | 5,620 | 1,350 | 531 | 684 | 415 |
| 21 | 892 | 655 | 1,080 | | 1,340 | 2,630 | 6,260 | 6,260 | 1,460 | 492 | 675 | 392 |
| 22 | 883 | 655 | 1,140 | | 1,630 | 2,980 | 5,830 | 6,040 | 1,460 | 500 | 614 | 408 |
| 23 | 866 | 610 | 1,050 | | 1,540 | 3,440 | 5,620 | 5,620 | 1,400 | 531 | 460 | 392 |
| 24 | 858 | 640 | 791 | 775 | 1,200 | 2,980 | 5,220 | 5,620 | 1,350 | 564 | 415 | 385 |
| 25 | 858 | 727 | 489 | | 1,280 | 2,980 | 5,030 | 5,420 | 1,160 | 589 | 378 | 385 |
| 26 | 874 | 3,060 | 1,050 | | 1,330 | 3,060 | 5,220 | 4,660 | 1,040 | 614 | 385 | 385 |
| 27 | 858 | 1,790 | 1,180 | | 1,400 | 2,360 | 5,420 | 3,600 | 965 | 539 | 385 | 392 |
| 28 | 858 | 963 | 1,240 | | 1,280 | 2,300 | 6,040 | 3,440 | 955 | 597 | 400 | 400 |
| 29 | 909 | 1,350 | 963 | | ------- | 2,230 | 6,480 | 3,370 | 828 | 572 | 422 | 392 |
| 30 | 918 | 936 | 618 | | ------- | 2,040 | 7,160 | 3,300 | 666 | 492 | 415 | 392 |
| 31 | 883 | ------- | 625 | | ------- | 1,910 | ------- | 3,160 | ------- | 460 | 415 | ------ |

NOTE.—Braced figures show mean estimated discharge as determined by comparison with flow at Horseshoe Bend and record of intervening diversions and storage for periods indicated.

*Monthly discharge of Payette River near Emmett, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 1,030 | 663 | 855 | 52,600 |
| November | 3,060 | 610 | 989 | 58,800 |
| December | 2,360 | 489 | 1,130 | 69,500 |
| January | ------- | 482 | 740 | 45,500 |
| February | 2,770 | ------- | 1,430 | 79,400 |
| March | 3,440 | 62 | 1,830 | 113,000 |
| April | 7,160 | 1,850 | 4,400 | 262,000 |
| May | 10,300 | 3,160 | 5,810 | 357,000 |
| June | 3,090 | 666 | 1,640 | 97,600 |
| July | 945 | 415 | 619 | 38,100 |
| August | 684 | 363 | 447 | 27,500 |
| September | 539 | 363 | 413 | 24,600 |
| The year | 10,300 | 62 | 1,690 | 1,230,000 |

### DEADWOOD RIVER NEAR LOWMAN, IDAHO

LOCATION.—In sec. 29, T. 9 N., R. 7 E., 600 feet above bridge on Garden Valley-Lowman highway, 700 feet above confluence with South Fork of Payette River, and 2½ miles west of Lowman, Boise County.

DRAINAGE AREA.—201 square miles (revised; measured on Forest Service maps).

RECORDS AVAILABLE.—August 11, 1921, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by Forest Service rangers.

DISCHARGE MEASUREMENTS.—Made from highway bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders; rough. Banks fairly low but not subject to overflow; gradient steep. Control fairly well defined, wide, and not sensitive; practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 3.71 feet at 1 a. m. May 5 (discharge, 1,810 second-feet); minimum stage recorded, 1.32 feet August 16 (discharge, 86 second-feet). Actual minimum discharge probably occurred December 30 or 31 during ice-affected period.

1921–1926: Maximum stage recorded, 4.53 feet at 3 a. m. May 26, 1922 (discharge, 3,080 second-feet); minimum stage recorded, 1.12 feet August 29, 1924 (discharge, 75 second-feet). Lower discharge may have occurred about December 18, 1924, during extreme cold period.

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—None.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed during ice-affected period December 25 to February 28. Two rating curves used; the first, applicable October 1 to December 20, is well defined between 100 and 1,700 second-feet and the other, applicable March 7 to September 30, is well defined between 90 and 1,700 second-feet. Staff gage read to hundredths about once a week during winter, because of severe ice conditions. Operation of water-stage recorder satisfactory for remainder of year. Daily discharge ascertained by applying to rating table daily staff gage height or mean daily gage height determined by inspection of recorder graph except as noted in footnote to table of daily discharge. Records good except those for November to February, which are fair.

COOPERATION.—Services of observer furnished by United States Forest Service.

*Discharge measurements of Deadwood River near Lowman, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 14 | 1.55 | 144 | May 12 | 2.71 | 683 | Aug. 4 | 1.38 | 98.0 |
| Mar. 12 | 1.57 | 145 | May 30 | 2.50 | 528 | | | |
| Apr. 20 | 3.03 | 902 | June 22 | 1.84 | 233 | | | |

*Daily discharge, in second-feet, of Deadwood River near Lowman, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 134 | | | | | | 188 | 1,070 | 485 | 169 | 124 | 127 |
| 2 | 132 | | | | | | 166 | 1,010 | 468 | 157 | 112 | 122 |
| 3 | 132 | | 200 | | 125 | | 188 | 983 | 446 | 157 | 99 | 123 |
| 4 | 132 | | | | | 125 | 184 | 1,160 | 430 | 148 | 99 | 123 |
| 5 | 132 | 130 | | | | | 204 | 1,520 | 410 | 148 | 95 | 124 |
| 6 | 150 | | 132 | | | | 247 | 1,160 | 390 | 146 | 95 | 122 |
| 7 | 160 | | | | | 127 | 279 | 1,020 | 371 | 154 | 97 | 122 |
| 8 | 137 | | | | | | 312 | 920 | 343 | 154 | 108 | 122 |
| 9 | 130 | | 133 | | | | 362 | 808 | 317 | 143 | 112 | 117 |
| 10 | 125 | | | | 150 | 140 | 410 | 725 | 295 | 140 | 99 | 112 |
| 11 | 125 | | | | | | 430 | 688 | 279 | 138 | 95 | 108 |
| 12 | 157 | | 134 | | | 146 | 490 | 665 | 267 | 129 | 95 | 103 |
| 13 | 150 | | | | | 151 | 552 | 652 | 267 | 122 | 95 | 99 |
| 14 | 139 | | | | | 172 | 606 | 658 | 267 | 112 | 93 | 95 |
| 15 | 142 | | | | | 204 | 680 | 680 | 267 | | 90 | 95 |
| 16 | 137 | 140 | 135 | 125 | | 236 | 800 | 688 | 267 | 125 | 86 | 99 |
| 17 | 134 | | | | | 247 | 901 | 725 | 247 | | 97 | 106 |
| 18 | 134 | | | | | 229 | 972 | 725 | 236 | | 129 | 101 |
| 19 | 132 | | | | | 214 | 1,050 | 740 | 283 | 146 | 166 | 97 |
| 20 | 130 | | 134 | | | 218 | 983 | 892 | 300 | 140 | 132 | 95 |
| 21 | 132 | | | | | 221 | 910 | 872 | 255 | 132 | 119 | 93 |
| 22 | 132 | 132 | | | 130 | 236 | 825 | 774 | 232 | 127 | 112 | 90 |
| 23 | 130 | | 140 | | | 275 | 740 | 740 | 221 | 124 | 112 | 92 |
| 24 | | 135 | | | | 279 | 710 | 718 | 211 | 117 | 108 | 94 |
| 25 | | | | | | 263 | 757 | 658 | 201 | 112 | 106 | 95 |
| 26 | | | | | | 240 | 825 | 613 | 191 | 106 | 106 | 97 |
| 27 | 130 | | | | | 221 | 872 | 582 | 188 | 108 | 110 | 99 |
| 28 | | 150 | 120 | | | 211 | 952 | 564 | 178 | 110 | 106 | 99 |
| 29 | | | | | ------- | 188 | 1,040 | 546 | 172 | 115 | 101 | 99 |
| 30 | | | | | ------- | 191 | 1,090 | 540 | 169 | 117 | 106 | 101 |
| 31 | | ------- | | | ------- | 198 | ------- | 507 | ------- | 122 | 135 | ------ |

NOTE.—Discharge estimated because of missing gage heights or ice effect Oct. 24–31, Nov. 1–21, 23–30, Dec. 1–5, 7–11, 13–19, 21–31, Jan. 1–31, Feb. 1–28, Mar. 1–6, 8–11; because of unreliable gage heights July 15–18; based on weather records and by comparison with flow of South Fork of Payette River near Garden Valley and Banks. Discharge interpolated June 13–15, Sept. 3, 4, 24, 25. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Deadwood River near Lowman, Idaho, for the year ending September 30, 1926*

[Drainage area, 201 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 160 | ---------- | 135 | 0.672 | 0.77 | 8,300 |
| November | ---------- | ---------- | 138 | .687 | .76 | 8,210 |
| December | ---------- | ---------- | 143 | .711 | .82 | 8,790 |
| January | ---------- | ---------- | 125 | .622 | .72 | 7,690 |
| February | ---------- | ---------- | 136 | .677 | .70 | 7,550 |
| March | 279 | ---------- | 186 | .925 | 1.07 | 11,400 |
| April | 1,090 | 166 | 624 | 3.10 | 3.46 | 37,100 |
| May | 1,520 | 507 | 794 | 3.95 | 4.86 | 48,800 |
| June | 485 | 169 | 288 | 1.43 | 1.60 | 17,100 |
| July | 169 | 106 | 132 | .657 | .76 | 8,120 |
| August | 166 | 86 | 108 | .537 | .62 | 6,640 |
| September | 127 | 90 | 106 | .527 | .59 | 6,310 |
| The year | 1,520 | 86 | 243 | 1.21 | 16.42 | 176,000 |

### PAYETTE LAKE AT LARDO, IDAHO

LOCATION.—In sec. 8, T. 18 N., R. 3 E., at outlet of lake at Lardo, Valley County.

DRAINAGE AREA.—131 square miles (measured on topographic and land office maps).

RECORDS AVAILABLE.—Fragmentary records August 1, 1921, to September 30, 1926.

GAGE.—Vertical staff on tubular pier of highway bridge, near right bank, at outlet of lake; read by F. L. Williams and J. J. Christison. Gage datum is 4,984.17 feet above mean sea level.

EXTREMES OF STAGE.—Maximum stage recorded during year, 5.65 feet June 14 and 21; minimum stage recorded, 0.48 foot September 8. Somewhat lower stage may have occurred latter part of September.

1923–1926: Maximum stage recorded, that of 1926; minimum stage recorded, −0.27 foot September 17, 1924. Records insufficient to warrant publication of extremes for 1921 and 1922.

DIVERSIONS.—None.

REGULATION.—Some storage is used for irrigation in the lower Payette Valley. From 1919 to 1923, a small amount of regulation effected during July, August, and September, by installation and later gradual removal of temporary dam above highway bridge. In the fall of 1923 a more permanent dam was installed 250 feet below highway bridge; thereafter regulation effected by operation of flashboards in dam. No storage effective prior to 1919.

COOPERATION.—Gage-height record furnished by United States Forest Service and Payette Lake Reservoir Association.

*Daily gage height, in feet, of Payette Lake at Lardo, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 1.68 | | | | | | | 4.60 | 5.40 | 2.65 | 0.68 |
| 2 | | | | 1.62 | | | | | 4.70 | 5.30 | 2.52 | |
| 3 | 1.53 | | | | | | | | 4.90 | 5.20 | 2.42 | |
| 4 | | | | | | | | | 5.05 | 5.10 | 2.32 | |
| 5 | | | 2.04 | | | | | | 5.20 | 5.00 | 2.22 | |
| 6 | | | | | | 1.66 | | | 5.30 | 4.95 | 2.10 | |
| 7 | | | | | | | | | 5.35 | 4.85 | 2.00 | |
| 8 | | 1.67 | | | | | | | | 4.75 | 2.02 | .48 |
| 9 | | | | | | | | | 5.45 | 4.75 | 1.95 | |
| 10 | | | | | | | | 3.20 | 5.50 | 4.80 | 1.88 | |
| 11 | | | 1.82 | | | | | | | 4.80 | 1.78 | |
| 12 | | | | | | | | | 5.60 | 4.80 | 1.70 | |
| 13 | | | | | | | | | | 4.70 | 1.64 | |
| 14 | | 1.79 | | | 1.73 | 1.68 | | | 5.65 | 4.60 | 1.54 | |
| 15 | | | | | | | | | | 4.50 | | |
| 16 | | | | | | | | | | 4.40 | | |
| 17 | | | | | | | | | | 4.30 | 1.30 | |
| 18 | | | | | | | | | | 4.20 | 1.36 | |
| 19 | | | 1.71 | | | | | | | 4.10 | 1.36 | |
| 20 | | | | | | | | | | 4.00 | 1.30 | |
| 21 | | 1.85 | | | 1.70 | | 3.53 | | 5.65 | 3.88 | 1.26 | |
| 22 | | | | | | | | | 5.60 | 3.79 | | |
| 23 | | | | | | | | | 5.55 | 3.65 | 1.14 | |
| 24 | | | | 1.60 | | | | 3.50 | 5.50 | 3.53 | | |
| 25 | | | | | | | | 3.90 | 5.50 | | .98 | |
| 26 | | | | | | | | 4.05 | 5.52 | 3.30 | | |
| 27 | | | | | | | | 4.10 | 5.55 | 3.18 | | |
| 28 | | | | | | | | 4.20 | 5.55 | 3.08 | | |
| 29 | | 1.87 | | | | | | 4.30 | 5.54 | 2.98 | .73 | |
| 30 | | | | | | | | 4.40 | 5.50 | 2.86 | | |
| 31 | | | | 1.65 | | | | 4.45 | | 2.78 | | |

NOTE.—No storage regulation in lake during year prior to May 24, on which date flashboards were placed in dam below outlet of lake; on June 1 additional flashboards were installed. Storage water was gradually released after June 15 by operation of flashboards.

### NORTH FORK OF PAYETTE RIVER AT LARDO, IDAHO

LOCATION.—In sec. 8, T. 18 N., R. 3 E., a quarter of a mile below Lardo, Valley County, and outlet of Payette Lake. No tributaries enter between lake and gage.

DRAINAGE AREA.—131 square miles (measured on topographic and land office maps).

RECORDS AVAILABLE.—September 1, 1908, to June 30, 1917; May 24, 1919, to September 30, 1926.

GAGE.—Au water-stage recorder on left bank installed March 14, 1926, replacing Friez recorder; inspected by F. L. Williams.

DISCHARGE MEASUREMENTS.—Made from cable half a mile below gage or by wading.

CHANNEL AND CONTROL.—Bed of stream and control composed of boulders, cobbles, and gravel; slightly shifting. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 5.32 feet from noon to 6 p. m. May 5 (discharge, 1,900 second-feet); minimum stage recorded, 1.00 foot September 30 (discharge, 2.9 second-feet).

1908–1917, 1919–1926: Maximum stage recorded, 7.5 feet June 5, 1909 (discharge, 4,250 second-feet); minimum discharge, that of September 30, 1926.

ICE.—Stage-discharge relation very seldom affected by ice, presumably because of proximity of station to Payette Lake.

DIVERSIONS.—None above station.

REGULATION.—Flow during irrigation season partly regulated by changing flashboards in dam installed in October and November, 1923, at outlet of Payette Lake.

ACCURACY.—Stage-discharge relation permanent during year. Rating curve well defined below 2,700 second-feet. Water-stage recorder operated satisfactorily except July 5–26 and August 21 to September 1, when staff gage was read frequently to hundredths. Daily discharge ascertained by applying to rating table daily staff gage reading or mean daily gage height determined by inspection of recorder graph, except as noted in footnote to table of daily discharge. Records above 300 second-feet excellent; others fair.

COOPERATION.—Services of observer furnished by United States Forest Service.

*Discharge measurements of North Fork of Payette River at Lardo, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 14 | 2.11 | 74 | May 27 | 3.33 | 440 | July 27 | 2.78 | 234 |
| Apr. 21 | 4.59 | 1,260 | June 21 | 3.28 | 434 | Sept. 8 | 2.10 | 75 |
| May 10 | 4.26 | 1,010 | | | | | | |

*Daily discharge, in second-feet, of North Fork of Payette River at Lardo, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 3.0 | 10 | 61 | 67 | 83 | 153 | 1,760 | 134 | 290 | 268 | 129 |
| 2 | | 3.0 | 10 | 57 | 67 | 81 | 148 | 1,720 | 96 | | 251 | 121 |
| 3 | 17 | 3.0 | 10 | 56 | 67 | 78 | 148 | 1,680 | 117 | | 244 | 113 |
| 4 | 18 | 3.0 | 67 | 54 | 83 | 75 | 148 | 1,720 | 158 | | 251 | 105 |
| 5 | 18 | 4.4 | 218 | 54 | 91 | 73 | 150 | 1,900 | 199 | 306 | 248 | 97 |
| 6 | 18 | 22 | 199 | 57 | 109 | 70 | 155 | 1,810 | 231 | 338 | 234 | 89 |
| 7 | 18 | 22 | 179 | 56 | 119 | 70 | 155 | 1,580 | 262 | 354 | 221 | 81 |
| 8 | 18 | 11 | 163 | 54 | 115 | 67 | 158 | 1,410 | 163 | 326 | 158 | 73 |
| 9 | 18 | 5.8 | 145 | 52 | 112 | 67 | 166 | 1,200 | 102 | 290 | 163 | 72 |
| 10 | 18 | 5.8 | 136 | | 108 | 67 | 182 | 1,040 | 93 | | 168 | 69 |
| 11 | 19 | 9.4 | 127 | | 104 | 67 | 208 | 935 | 91 | | 190 | 66 |
| 12 | | 22 | 129 | | 100 | 69 | 240 | 900 | 89 | | 171 | 54 |
| 13 | | 22 | 121 | | 97 | 73 | 295 | 868 | 86 | 234 | 179 | 28 |
| 14 | | 22 | 111 | | 93 | 75 | 368 | 900 | 83 | 236 | 224 | 28 |
| 15 | | 22 | 103 | | 94 | 76 | 455 | 970 | 93 | 238 | 202 | 26 |
| 16 | | 19 | 96 | 50 | 96 | 81 | 568 | 1,010 | 158 | 240 | 185 | 28 |
| 17 | | 16 | 91 | | 98 | 89 | 686 | 1,040 | 163 | 237 | 171 | 28 |
| 18 | | 16 | 91 | | 94 | 98 | 868 | 1,080 | 171 | 234 | 160 | 28 |
| 19 | | 17 | 87 | | 91 | 100 | 1,080 | 1,120 | 291 | 234 | 115 | 28 |
| 20 | | 16 | 84 | | 89 | 102 | 1,200 | 1,240 | 422 | 215 | 145 | 27 |
| 21 | | 16 | 87 | | 89 | 103 | 1,280 | 1,320 | 426 | 314 | 173 | 26 |
| 22 | | 15 | 93 | | 89 | 107 | 1,280 | 1,320 | 342 | 299 | 178 | 26 |
| 23 | | 13 | 100 | | 91 | 115 | 1,200 | 1,280 | 302 | 179 | 182 | 14 |
| 24 | | 11 | 98 | 54 | 96 | 125 | 1,080 | 639 | | 291 | 172 | 3.5 |
| 25 | | 10 | 93 | 54 | 96 | 132 | 1,080 | 318 | | 276 | 163 | 3.4 |
| 26 | 12 | 10 | 87 | 52 | 93 | 136 | 1,160 | 413 | 300 | 262 | 156 | 3.4 |
| 27 | | 10 | 83 | 51 | 89 | 138 | 1,280 | 455 | | 234 | 150 | 3.4 |
| 28 | | 10 | 78 | 51 | 86 | 143 | 1,410 | 465 | | 227 | 144 | 3.2 |
| 29 | | 10 | 74 | 56 | ------- | 141 | 1,580 | 490 | | 237 | 138 | 3.2 |
| 30 | | 10 | 70 | 65 | ------- | 143 | 1,720 | 530 | | 251 | 135 | 2.9 |
| 31 | | ------- | 66 | 65 | ------- | 153 | ------- | 460 | ------- | 258 | 132 | ------- |

NOTE.—Because of missing gage-heights discharge estimated Oct. 1, 2, 11–31, Jan. 10–23, June 24–30, July 1–4, 9–12; interpolated Dec. 27–31, Jan. 1, Feb. 8–13, Mar. 1–5, July 14–15, 17, 25, Aug. 22, 24, 26–28, 30, 31, Sept. 2–7. Braced figures give mean discharge for periods indicated.

*Monthly discharge of North Fork of Payette River at Lardo, Idaho, for the year ending September 30, 1926*

[Drainage area, 131 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | ------- | ------- | 16.2 | 0.124 | 0.14 | 996 |
| November | 22 | 3.0 | 12.6 | .096 | .11 | 750 |
| December | 218 | 10 | 100 | .763 | .88 | 6,150 |
| January | ------- | ------- | 53.2 | .406 | .47 | 3,270 |
| February | 119 | 67 | 93.7 | .715 | .74 | 5,200 |
| March | 153 | 67 | 96.7 | .738 | .85 | 5,950 |
| April | 1,720 | 148 | 687 | 5.24 | 5.85 | 40,900 |
| May | 1,900 | 318 | 1,080 | 8.24 | 9.50 | 66,400 |
| June | 426 | 83 | 212 | 1.62 | 1.81 | 12,600 |
| July | 354 | 179 | 269 | 2.05 | 2.36 | 16,500 |
| August | 268 | 115 | 183 | 1.40 | 1.61 | 11,300 |
| September | 129 | 2.9 | 46.0 | .351 | .39 | 2,740 |
| The year | 1,900 | 2.9 | 239 | 1.82 | 24.71 | 173,000 |

### LAKE FORK OF PAYETTE RIVER ABOVE RESERVOIR NEAR McCALL, IDAHO

LOCATION.—In NE. ¼ NW. ¼ sec. 8, T. 18 N., R. 4 E., 700 feet above highway bridge, three-fourths mile below power plant, and 5 miles east of McCall, Valley County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 9, 1926, to September 30, 1926.

GAGE.—Vertical staff on left bank; read by T. E. Bennett.

DISCHARGE MEASUREMENTS.—Made from highway bridge or by wading.

CHANNEL AND CONTROL.—Bed of fine gravel with some cobblestones and boulders. One channel at all stages. Control formed by well-defined gravel riffle; subject to change.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period of record, 3.10 feet May 20 (discharge, 647 second-feet); minimum stage, 0.31 foot August 15 (discharge, 9 second-feet).

DIVERSIONS.—Water is diverted about 1½ miles above gage and carried through pipe line to 250-horse-power plant three-fourths mile above gage.

REGULATION.—None except as mentioned above.

ACCURACY.—Stage-discharge relation permanent. Rating curve used well defined to 300 second-feet, above which it is an extension. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table. Records good.

COOPERATION.—Gage-height record furnished by Lake Irrigation District.

*Discharge measurements of Lake Fork of Payette River above reservoir near McCall, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 9 | 1.95 | 268 | July 27 | 0.42 | 18.9 |
| May 27 | 1.99 | 279 | Sept. 8 | .56 | 29.6 |
| June 20 | 1.44 | 151 | | | |

*Daily discharge, in second-feet, of Lake Fork of Payette River above reservoir near McCall, Idaho, for the year ending September 30, 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 228 | 67 | 14 | 33 | 16 | 375 | 96 | 28 | 10 | 27 |
| 2 | ------ | 216 | 57 | 14 | 31 | 17 | 407 | 96 | 27 | 11 | 29 |
| 3 | ------ | 204 | 55 | 14 | 26 | 18 | 391 | 89 | 26 | 96 | 27 |
| 4 | ------ | 216 | 50 | 14 | 22 | 19 | 440 | 162 | 25 | 40 | 27 |
| 5 | ------ | 216 | 46 | 13 | 21 | 20 | 647 | 153 | 23 | 27 | 27 |
| 6 | ------ | 204 | 42 | 13 | 22 | 21 | 440 | 127 | 23 | 23 | 27 |
| 7 | ------ | 182 | 61 | 12 | 28 | 22 | 424 | 119 | 22 | 20 | 26 |
| 8 | ------ | 172 | 47 | 27 | 21 | 23 | 407 | 104 | 22 | 17 | 26 |
| 9 | 268 | 153 | 42 | 16 | 25 | 24 | 391 | 96 | 21 | 15 | 22 |
| 10 | 254 | 127 | 39 | 15 | 24 | 25 | 297 | 89 | 20 | 15 | 22 |
| 11 | 254 | 119 | 38 | 14 | 21 | 26 | 268 | 82 | 18 | 20 | 25 |
| 12 | 268 | 111 | 36 | 13 | 20 | 27 | 268 | 77 | 19 | 17 | 25 |
| 13 | 282 | 104 | 34 | 12 | 19 | 28 | 268 | 69 | 18 | 15 | 23 |
| 14 | 328 | 111 | 32 | 10 | 18 | 29 | 282 | 64 | 17 | 15 | 23 |
| 15 | 359 | 111 | 30 | 9 | 17 | 30 | 268 | 61 | 16 | 30 | 22 |
| | | | | | | 31 | 228 | ------ | 15 | 45 | ------ |

NOTE.—Discharge interpolated July 11.

*Monthly discharge of Lake Fork of Payette River above reservoir near McCall, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May 9–31 | 647 | 228 | 340 | 15,500 |
| June | 228 | 61 | 132 | 7,860 |
| July | 67 | 15 | 32.8 | 2,020 |
| August | 96 | 9 | 20.2 | 1,240 |
| September | 33 | 17 | 24.5 | 1,460 |
| The period | | | | 28,100 |

**LAKE FORK RESERVOIR NEAR McCALL, IDAHO**

LOCATION.—In NW. ¼ NW. ¼ sec. 13, T. 18 N., R. 3 E., 3 miles east of McCall, Valley County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 22 to September 30, 1926.

GAGE.—Graduations painted on concrete work to gate control in center of dam at upper end of tunnel outlet; read by Orval Kyser.

EXTREMES OF STAGE.—Maximum stage recorded during period of record, 5,114.6 feet June 22–26 (contents, 13,230 acre-feet); minimum stage, 5,106.2 feet September 27–30 (contents, 2,967 acre-feet).

COOPERATION.—Gage-height record furnished by Lake Irrigation District.

Stored water from this reservoir is used for irrigation of about 6,800 acres of lands near Norwood. Elevation of spillway crest is 5,112.0 feet, at which stage approximately 1,500 acres is submerged. Elevation of gate sill of outlet is 5,097.0 feet, top of dam 5,120.0 feet.

*Daily contents, in acre-feet, of Lake Fork Reservoir near McCall, Idaho, for the year ending September 30, 1926*

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 12,930 | 12,620 | 6,186 | 3,291 | 16 | | 12,020 | 12,470 | 9,522 | 3,987 | 3,048 |
| 2 | | | 12,930 | 12,470 | 5,954 | 3,291 | 17 | | 12,020 | 12,320 | 9,379 | 3,801 | 3,048 |
| 3 | | | 12,930 | 12,320 | 5,722 | 3,291 | 18 | | 12,170 | 12,470 | 9,108 | 3,708 | 3,048 |
| 4 | | | 12,930 | 12,020 | 5,606 | 3,291 | 19 | | 12,320 | 12,620 | 8,838 | 3,708 | 3,048 |
| 5 | | | 12,930 | 11,720 | 5,510 | 3,210 | 20 | | 12,320 | 12,880 | 8,703 | 3,801 | 3,048 |
| 6 | | | 12,930 | 11,570 | 5,394 | 3,210 | 21 | | 12,320 | 13,080 | 8,433 | 3,801 | 3,048 |
| 7 | | | 12,930 | 11,420 | 5,182 | 3,210 | 22 | 11,150 | 12,620 | 13,230 | 8,163 | 3,708 | 3,048 |
| 8 | | | 12,930 | 11,270 | 5,076 | 3,210 | 23 | | 12,320 | 13,230 | 7,903 | 3,708 | 3,048 |
| 9 | | 12,000 | 12,930 | 11,120 | 4,970 | 3,218 | 24 | | 12,320 | 13,230 | 7,777 | 3,615 | 3,048 |
| 10 | | 11,810 | 12,930 | 10,820 | 4,758 | 3,129 | 25 | | 12,020 | 13,230 | 7,651 | 3,615 | 3,048 |
| 11 | | | 12,930 | 10,670 | 4,652 | 3,129 | 26 | | 12,020 | 13,230 | 7,462 | 3,534 | 3,048 |
| 12 | | | 12,620 | 10,390 | 4,453 | 3,129 | 27 | | 11,940 | 13,080 | 7,399 | 3,453 | 2,967 |
| 13 | | | 12,620 | 10,240 | 4,266 | 3,048 | 28 | | 12,080 | 13,080 | 7,021 | 3,372 | 2,967 |
| 14 | | | 12,620 | 9,954 | 4,173 | 3,048 | 29 | | 12,320 | 12,930 | 6,769 | 3,372 | 2,967 |
| 15 | | | 12,470 | 9,810 | 4,080 | 3,048 | 30 | | 12,620 | 12,780 | 6,535 | 3,291 | 2,967 |
| | | | | | | | 31 | | 12,620 | | 6,302 | 3,291 | |

**LAKE IRRIGATION DISTRICT CANAL NEAR McCALL, IDAHO**

LOCATION.—In SW. ¼ sec. 13, T. 18 N., R. 3 E., 200 yards below head gate, half a mile south of Lake Fork Reservoir, and 3 miles east of McCall, Valley County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 9 to September 30, 1926.

GAGE.—Vertical staff on right bank; read by Orval Kyser. Prior to July 28 gage was 150 feet upstream at different datum.

DISCHARGE MEASUREMENTS.—Made from footbridge 150 feet above gage.

CHANNEL AND CONTROL.—Bed of fine gravel. One channel at all stages. Control not definitely defined.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period of record, 3.95 feet from 4 p. m. June 15 to 10 a. m. June 16 (discharge, 91 second-feet). A higher flow may have occurred June 26 to July 27 during period of no gage heights. Canal practically dry during nonirrigation season.

DIVERSIONS.—None above gage.

REGULATION.—Flow regulated at head gate 200 yards upstream.

ACCURACY.—Two well-defined rating curves used; one applicable prior to June 16 and the other applicable after July 28. Gage-height record good. Records good except for estimated period June 26 to July 27, for which it is fair.

COOPERATION.—Gage-height record furnished by Lake Irrigation District.

Lake Irrigation District Canal diverts water from right bank of Lake Fork of Payette River in SW. ¼ sec. 13, T. 18 N., R. 3 E., for irrigation of 6,800-acre project of Lake Irrigation District situated near McCall and Norwood.

*Discharge measurements of Lake Irrigation District Canal near McCall, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 10 | 1.76 | 2.7 | May 28 | 2.79 | 32.1 | July 28 | 2.13 | 6.9 |
| May 27 | 2.20 | 12.0 | July 28 | 3.88 | 68.4 | Sept. 9 | 2.56 | 17.3 |
| May 28 | 3.66 | 73.6 | Do | 2.82 | 24.8 | | | |

NOTE.—On May 9 estimated flow at gage height 1.53 feet was 0.2 second-foot.

*Daily discharge, in second-feet, of Lake Irrigation District Canal near McCall, Idaho, for the year ending September 30, 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 18 | 85 | 59 | 18 | 16 | 8.9 | 38 | 90 | 45 | 18 |
| 2 | ------ | 29 | | 59 | 18 | 17 | 14 | | | 42 | 18 |
| 3 | ------ | 29 | 90 | 59 | 18 | 18 | 14 | | 90 | 25 | 18 |
| 4 | ------ | 38 | | 59 | 18 | 19 | 13 | | | 18 | 18 |
| 5 | ------ | 50 | 89 | 56 | 18 | 20 | 12 | | 86 | 18 | 18 |
| 6 | ------ | 60 | | 50 | 18 | 21 | 12 | 0 | 81 | 18 | 18 |
| 7 | ------ | 62 | 88 | 48 | 18 | 22 | 12 | | | 18 | 18 |
| 8 | ------ | 65 | | 46 | 18 | 23 | 12 | | 80 | 18 | 18 |
| 9 | 9 | 65 | | 46 | 18 | 24 | 12 | | | 18 | 18 |
| 10 | 4.7 | 65 | | 46 | 18 | 25 | 8.5 | | | 18 | 18 |
| 11 | 2.7 | 70 | 89 | 46 | 18 | 26 | 6.4 | 40 | 76 | 18 | 18 |
| 12 | 2.7 | 82 | | 49 | 18 | 27 | 8.4 | 46 | | 21 | 18 |
| 13 | 2.7 | 85 | 90 | 49 | 18 | 28 | 16 | 43 | 62 | 22 | 18 |
| 14 | 2.7 | 85 | | 49 | 18 | 29 | 9.5 | 62 | 64 | 22 | 1 |
| 15 | 2.7 | 88 | | 50 | 18 | 30 | 9.5 | 76 | 59 | 19 | 18 |
| | | | | | | 31 | 10 | ------ | 59 | 18 | ------ |

NOTE.—Because of missing gage-height record discharge estimated May 9, 10, 16, 19, 25, 27, 28, 31, June 1, 16, based on known time of changes at head gate. Discharge June 17 to July 27 estimated on basis of water master's deliveries to system below.

*Monthly discharge of Lake Irrigation District Canal near McCall, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May 9–31 | 16 | 2.7 | 8.93 | 407 |
| June | 88 | 0 | 39.9 | 2,370 |
| July | ---------- | 59 | 82.9 | 5,100 |
| August | 59 | 18 | 36.4 | 2,240 |
| September | 18 | 18 | 18.0 | 1,070 |
| The period | ---------- | ---------- | ---------- | 11,200 |

### SQUAW CREEK NEAR GROSS, IDAHO

LOCATION.—In sec. 19, T. 13 N., R. 2 E., at mouth of Cold Spring Creek, 2 miles southeast of Mill Creek ranger station, 10 miles north of Gross, Gem County, and 19 miles north of Ola. Record includes flow of Cold Spring Creek.

DRAINAGE AREA.—21 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 26, 1925, to September 30, 1926.

GAGE.—Au continuous water-stage recorder on left bank; inspected by Geological Survey engineers.

DISCHARGE MEASUREMENTS.—Made from footbridge 15 miles below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders. One channel at all stages. Gradient is steep. Control fairly well defined; subject to change at high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 3.37 feet at 7 p. m. May 4 (discharge, 394 second-feet); minimum stage, 0.80 foot at 1 to 2 p. m. September 25 (discharge, 1.7 second-feet).

1925–1926: Maximum stage recorded, 3.55 feet at 9 p. m. May 27, 1925 (discharge, 413 second-feet); minimum stage and discharge occurred on September 25, 1926.

ICE.—Stage-discharge relation affected by ice; observations discontinued during winter.

DIVERSIONS.—None above gage.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Three rating curves used; the first, applicable prior to April 28, is well defined below 250 second-feet, above which it is extended; the second, applicable May 4 to July 21, is well defined below 200 second-feet; the third, applicable after September 2, is parallel to the second curve. Except for loss of gage-height record July 22 to September 2, owing to clock trouble, water-stage recorder operated satisfactorily. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph, except as noted in footnote to table of daily discharge. Shifting-control method used April 28 to May 3. Records good, except for estimated periods, for which they are fair.

*Discharge measurements of Squaw Creek near Gross, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 10 | 1.67 | 38.8 | May 23 | 2.08 | 99 | July 21 | 0.87 | 3.7 |
| May 4 | 2.47 | 160 | June 24 | 1.28 | 16.7 | Sept. 3 | .98 | 3.8 |

*Daily discharge, in second-feet, of Squaw Creek near Gross, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1 | 5.5 | 4.0 | | 125 | 64 | 9.5 | | 10.0 |
| 2 | 5.0 | 4.5 | | 124 | 59 | 8.8 | | 7.0 |
| 3 | 4.5 | 3.8 | 26 | 130 | 56 | 8.2 | | 3.7 |
| 4 | 4.5 | 3.8 | | 204 | 53 | 8.2 | | 3.5 |
| 5 | 4.3 | 3.5 | | 166 | 50 | 7.5 | | 3.3 |
| 6 | 8.5 | 3.8 | | 118 | 45 | 6.9 | | 3.2 |
| 7 | 7.8 | 3.7 | | 101 | 40 | 8.2 | | 3.5 |
| 8 | 6.0 | 4.3 | 34 | 91 | 36 | 9.9 | | 3.8 |
| 9 | 5.5 | 5.2 | | 83 | 31 | 7.5 | | 3.4 |
| 10 | 5.5 | 5.2 | 41 | 80 | 28 | 6.9 | 3.3 | 3.2 |
| 11 | 6.0 | 5.5 | 45 | 86 | 25 | 6.0 | | 3.0 |
| 12 | 7.5 | 5.2 | 50 | 98 | 23 | 5.7 | | 3.0 |
| 13 | 7.2 | 5.0 | 54 | 104 | 22 | 5.2 | | 2.9 |
| 14 | 5.7 | 4.0 | 61 | 119 | 21 | 4.8 | | 2.9 |
| 15 | 5.2 | 5.7 | 73 | 126 | 20 | 4.5 | | 2.9 |
| 16 | 5.0 | 5.0 | 85 | 119 | 20 | 4.0 | | 4.0 |
| 17 | 5.0 | 5.0 | 97 | 122 | 18 | 3.8 | | 4.3 |
| 18 | 4.8 | 5.0 | 111 | 124 | 17 | 3.7 | | 3.5 |
| 19 | 4.5 | 5.2 | 111 | 130 | 39 | 3.5 | 10 | 3.4 |
| 20 | 4.5 | 6.5 | 103 | 148 | 30 | 3.4 | | 3.2 |
| 21 | 4.3 | 5.5 | 91 | 127 | 25 | 3.4 | | 3.0 |
| 22 | 4.3 | 5.2 | 80 | 127 | 21 | | | 3.0 |
| 23 | 3.8 | 4.3 | 68 | 119 | 19 | | | 3.2 |
| 24 | 3.8 | 6.0 | 68 | 107 | 17 | | | 2.9 |
| 25 | 4.0 | | 80 | 86 | 15 | | 4.0 | 2.9 |
| 26 | 4.0 | | 94 | 84 | 14 | 3.4 | | 3.3 |
| 27 | 4.0 | 5.5 | 105 | 87 | 13 | | | 3.2 |
| 28 | 4.0 | | 117 | 82 | 12 | | | 3.2 |
| 29 | 5.0 | | 127 | 78 | 11 | | | 3.3 |
| 30 | 4.8 | | 128 | 71 | 10 | | 18 | 3.3 |
| 31 | 4.3 | | | 65 | | | 22 | |

NOTE.—Discharge estimated on basis of comparison with flow of Little Weiser River near Indian Valley Nov. 25-30, Apr. 1-9, and July 22 to Sept. 2. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Squaw Creek near Gross, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 8.5 | 3.8 | 5.12 | 0.244 | 0.28 | 315 |
| November | | 3.5 | 4.93 | .235 | .26 | 293 |
| April | 128 | | 68.5 | 3.26 | 3.64 | 4,080 |
| May | 204 | 65 | 111 | 5.29 | 6.10 | 6,820 |
| June | 64 | 10 | 28.5 | 1.36 | 1.52 | 1,700 |
| July | 9.5 | | 5.28 | .251 | .29 | 325 |
| August | | | 5.23 | .249 | .29 | 322 |
| September | | 2.9 | 3.63 | .173 | .19 | 216 |

### WEISER RIVER ABOVE CRANE CREEK, NEAR WEISER, IDAHO

LOCATION.—In sec. 10, T. 11 N., R. 4 W., at Purcell ranch, 1 mile above mouth of Crane Creek and 9 miles northeast of Weiser, Washington County.

DRAINAGE AREA.—1,160 square miles (measured on Forest Service map, topographic maps, and base map of Idaho).

RECORDS AVAILABLE.—July 15, 1920, to September 30, 1926.

GAGE.—Friez water-stage recorder on left bank a quarter of a mile from ranch house on Purcell ranch; inspected by O. A. Purcell.

DISCHARGE MEASUREMENTS.—Made from cable 200 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. One channel at all stages. Control formed by well-defined gravel and boulder riffle 200 feet below gage; changes at times.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 8.11 feet at 4 p. m. February 6 (discharge, 8,750 second-feet); minimum estimated discharge, 14 second-feet August 1–7; probably not actual minimum.

1920–1926: Maximum stage recorded, from well-defined high-water mark, 10.65 feet about February 4, 1925 (discharge, about 13,500 second-feet); minimum discharge recorded, 10 second-feet July 31, August 1 and 6–18, 1924.

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—Numerous diversions for irrigation above.

REGULATION.—None except that due to diversions.

ACCURACY.—Stage-discharge relation changed during January and February. Rating curve applicable October 1 to December 30 is well defined between 25 and 5,000 second-feet; rating curve applicable February 4 to September 30 is well defined below 2,000 second-feet. Operation of water-stage recorder satisfactory except for few short periods in September, July, and August. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph except as indicated in footnote to table of daily discharge. Records for October to June excellent, July to September good except those for estimated periods, which are poor.

*Discharge measurements of Weiser River above Crane Creek, near Weiser, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 6 | 3.64 | 1,750 | May 3 | 3.31 | 1,390 | July 20 | 0.84 | 17.9 |
| Apr. 11 | 3.31 | 1,350 | May 20 | 2.84 | 933 | Sept. 4 | 1.06 | 46.6 |
| May 1 | 3.52 | 1,570 | June 15 | 1.10 | 55 | | | |

*Daily discharge, in second-feet, of Weiser River above Crane Creek, near Weiser, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 91 | 123 | 158 | | | 1,800 | 768 | 1,530 | 370 | 52 | | 46 |
| 2 | 91 | 123 | 359 | | 400 | 1,740 | 752 | 1,400 | 336 | 49 | | 54 |
| 3 | 91 | 121 | 500 | 185 | | 1,850 | 696 | 1,330 | 312 | 49 | | 49 |
| 4 | 86 | 118 | 312 | | 550 | 2,030 | 703 | 1,310 | 271 | 49 | 14 | 46 |
| 5 | 86 | 118 | 268 | | 1,240 | 1,910 | 731 | 1,740 | 250 | 47 | | 44 |
| 6 | 91 | 118 | 247 | | 2,480 | 1,620 | 892 | 1,510 | 229 | 46 | | 40 |
| 7 | 115 | 109 | 226 | | 5,260 | 1,440 | 942 | 1,360 | 225 | 44 | | 40 |
| 8 | 139 | 107 | 211 | | 3,900 | 1,400 | 1,110 | 1,230 | 202 | 40 | 20 | 40 |
| 9 | 132 | 112 | 204 | | 2,950 | 1,510 | 1,280 | 1,160 | 191 | 37 | 19 | 40 |
| 10 | 126 | 151 | 196 | | 2,150 | 1,430 | 1,320 | 1,040 | 187 | 36 | 19 | 40 |
| 11 | 123 | 168 | 192 | | 2,030 | 1,360 | 1,400 | 985 | 139 | 34 | 19 | 44 |
| 12 | 129 | 178 | 207 | | 1,800 | 1,340 | 1,480 | 968 | 100 | 33 | 19 | 40 |
| 13 | 132 | 182 | 211 | | 1,330 | 1,370 | 1,530 | 942 | 71 | 30 | 19 | 40 |
| 14 | 129 | 161 | 204 | | 1,240 | 1,530 | 1,550 | 942 | 71 | 29 | 18 | 39 |
| 15 | 126 | 151 | 172 | | 985 | 1,620 | 1,620 | 951 | 54 | 29 | 18 | 37 |
| 16 | 121 | 155 | 168 | 200 | 960 | 1,740 | 1,740 | 926 | 52 | 29 | 18 | 37 |
| 17 | 121 | 161 | 186 | | 1,060 | 1,740 | 1,910 | 908 | 54 | 27 | 18 | 40 |
| 18 | 115 | 158 | 178 | | 968 | 1,620 | 2,090 | 884 | 60 | | 19 | 49 |
| 19 | 115 | 151 | 196 | | 926 | 1,410 | 2,280 | 876 | 64 | 22 | 23 | 54 |
| 20 | 115 | 151 | 196 | | 1,080 | 1,290 | 2,220 | 908 | 169 | 18 | 39 | |
| 21 | 115 | 161 | 189 | | 1,250 | 1,230 | 2,030 | 985 | 191 | 18 | 42 | 50 |
| 22 | 115 | 142 | 178 | | 1,430 | 1,190 | 1,850 | 884 | 169 | | 34 | |
| 23 | 115 | 129 | 211 | | 1,240 | 1,240 | 1,620 | 820 | 142 | | 30 | 44 |
| 24 | 115 | 129 | 405 | | 1,070 | 1,290 | 1,460 | 775 | 129 | | 29 | 48 |
| 25 | 118 | 132 | 369 | | 1,350 | 1,230 | 1,390 | 710 | 114 | | 28 | |
| 26 | 115 | 145 | 290 | | 1,280 | 1,100 | 1,400 | 635 | 100 | 15 | 27 | 51 |
| 27 | 115 | 151 | 242 | | 1,420 | 1,000 | 1,430 | 570 | 82 | | 27 | 51 |
| 28 | 118 | 148 | 215 | | 1,570 | 926 | 1,460 | 520 | 71 | | 27 | 51 |
| 29 | 121 | 145 | 175 | 220 | ------- | 844 | 1,520 | 502 | 60 | | 27 | 50 |
| 30 | 121 | 145 | 178 | | ------- | 790 | 1,570 | 467 | 54 | | 36 | |
| 31 | 123 | ------- | 170 | | ------- | 752 | ------- | 417 | ------- | | 32 | ------- |

NOTE.—Discharge estimated because of ice Dec. 31 to Feb. 3; because of clogged intake trench July 18–20, 22–31, Aug. 1–7; because of missing gage heights June 12, Sept. 20–22, 24, 25, 29, 30, based upon weather records and flow at other stations in Weiser River Basin. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Weiser River above Crane Creek, near Weiser, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 139 | 86 | 115 | 7,070 |
| November | 182 | 107 | 141 | 8,390 |
| December | 500 | 158 | 233 | 14,300 |
| January | ---------- | ---------- | 201 | 12,400 |
| February | 5,260 | ---------- | 1,530 | 85,000 |
| March | 2,030 | 752 | 1,400 | 86,100 |
| April | 2,280 | 696 | 1,420 | 84,500 |
| May | 1,740 | 417 | 974 | 59,900 |
| June | 370 | 52 | 151 | 8,980 |
| July | 52 | ---------- | 28.7 | 1,760 |
| August | 42 | ---------- | 22.7 | 1,400 |
| September | ---------- | 37 | 45.4 | 2,700 |
| The year | 5,260 | ---------- | 514 | 372,000 |

### LOST CREEK NEAR TAMARACK, IDAHO

LOCATION.—In sec. 28, T. 19 N., R. 1 W., a quarter of a mile below dam of Lost Valley Reservoir, 6 miles southwest of Tamarack, Adams County, and 20 miles north of Council.

DRAINAGE AREA.—30 square miles (furnished by Weiser Valley Land & Water Co.).

RECORDS AVAILABLE.—January 1, 1910, to August 21, 1914; May 21, 1920, to September 30, 1921; May 22, 1924, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on right bank; installed May 21, 1920; inspected by Olen Rinehart, M. Van Hoesen, and W. E. Talboy.

DISCHARGE MEASUREMENTS.—Made from footbridge near gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel, cobbles, and boulders; very rough. One channel at all stages. Control formed by well-defined rock riffle 20 feet below gage.

EXTREMES OF DISCHARGE.—Maximum stage, from water-stage recorder, 1.96 feet May 8 (discharge, 66 second-feet); minimum stage, 0.85 foot 5 p. m. June 16 to noon June 17 (discharge, 2 second-feet).

1910–1914, 1920–1921, 1924–1926: Maximum stage recorded, 4.29 feet from 9 p. m. May 17 to 8 a. m. May 18, 1921 (discharge, 688 second-feet); practically no flow at various times gates in dam were closed.

ICE.—Records discontinued during winter.

DIVERSIONS.—None between gage and reservoir; practically entire flow diverted below station during irrigation season.

REGULATION.—Flow entirely regulated by head gates at dam above station.

ACCURACY.—Stage-discharge relation changed slightly during winter period of no record. Rating curves well defined between 20 and 140 second-feet, applicable October 1–10 and May 8 to September 30, respectively, are fairly well defined above. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph, except as noted in footnote to table of daily discharge. Records good except for estimated periods, which are fair.

COOPERATION.—Gage-height record furnished in part by Mesa Orchards Co.

*Discharge measurements of Lost Creek near Tamarack, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 8 | 1.96 | 62.8 | June 19 | 1.79 | 44.5 |
| May 25 | 1.33 | 12.0 | July 25 | 1.65 | 31.1 |

*Daily discharge, in second-feet, of Lost Creek near Tamarack, Idaho, for the year ending September 30, 1926*

| Day | Oct. | May | June | July | Aug. | Sept. | Day | Oct. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | ------ | | | 32 | ------ | 16 | ------ | 29 | 2 | 32 | 25 | ------ |
| 2 | 20 | ------ | | | 32 | ------ | 17 | ------ | 12 | 11 | 32 | ------ | ------ |
| 3 | 20 | ------ | | | 32 | ------ | 18 | ------ | 12 | 45 | 32 | ------ | ------ |
| 4 | 20 | ------ | 10 | | 31 | ------ | 19 | ------ | 11 | 45 | 31 | ------ | ------ |
| 5 | 20 | ------ | | | 31 | ------ | 20 | ------ | 11 | 45 | 31 | ------ | ------ |
| 6 | 20 | ------ | | | 43 | ------ | 21 | ------ | 11 | 45 | 31 | ------ | ------ |
| 7 | 19 | ------ | 16 | 40 | 52 | ------ | 22 | ------ | 11 | 45 | 31 | ------ | ------ |
| 8 | 19 | 66 | 16 | | 52 | ------ | 23 | ------ | 11 | 45 | 31 | ------ | ------ |
| 9 | 19 | 61 | 16 | | 51 | ------ | 24 | ------ | 12 | | 32 | ------ | ------ |
| 10 | 19 | 57 | | | 50 | ------ | 25 | ------ | 12 | | 32 | ------ | 38 |
| 11 | ------ | 52 | | | 48 | ------ | 26 | ------ | 13 | 44 | 32 | ------ | ------ |
| 12 | ------ | 51 | 10 | | 47 | ------ | 27 | ------ | 13 | | 32 | ------ | ------ |
| 13 | ------ | 51 | | | 40 | ------ | 28 | ------ | 13 | | 32 | ------ | ------ |
| 14 | ------ | 50 | | 36 | 31 | ------ | 29 | ------ | 13 | | 32 | ------ | ------ |
| 15 | ------ | 47 | | 32 | 30 | ------ | 30 | ------ | 8 | | 31 | ------ | ------ |
| | | | | | | | 31 | ------ | 6 | ------ | 32 | ------ | ------ |

NOTE.—Discharge estimated June 24 to July 13, based on notes by water master for Weiser River; estimated June 1–6 and 10–15 because of missing gage-height record. Discharge interpolated May 20–22 and June 20–22.

*Monthly discharge of Lost Creek near Tamarack, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October 1–10 | 20 | 19 | 19.6 | 389 |
| May 8–31 | 66 | 6 | 26.4 | 1,260 |
| June | 45 | 2 | 25.3 | 1,510 |
| July | ---------- | 31 | 35.3 | 2,170 |
| August 1–16 | 52 | 25 | 39.2 | 1,240 |
| September | ---------- | ---------- | ---------- | ---------- |

### LITTLE WEISER RIVER NEAR INDIAN VALLEY, IDAHO

LOCATION.—In sec. 36, T. 14 N., R. 1 W., half a mile below Richardson ranch house, and 5 miles southeast of Indian Valley, Adams County.

DRAINAGE AREA.—81 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 26, 1920, to February 28, 1921; March 24 to June 29, 1923; February 25, 1924, to September 30, 1926. From February 25 to April 22, 1924, records were collected at the Burger ranch 1 mile downstream.

GAGE.—Au water-stage recorder on left bank installed March 30, 1925; inspected by G. L. Burger.

DISCHARGE MEASUREMENTS.—Made from footbridge 10 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock overlain with gravel. One channel at all stages. Banks fairly high. Control well defined; not permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 1.99 feet from 10 to 11 p. m. April 18 (discharge, 311 second-feet); minimum discharge, 6.7 second-feet August 15–17.

1920–21; 1923–1926: Maximum stage recorded, 4.19 feet about 10 p. m. February 4, 1925 (discharge, about 1,840 second-feet); minimum discharge, 3.6 second-feet August 28–30 and September 4 and 5, 1924.

ICE.—Stage-discharge relation affected by ice during winter.

DIVERSIONS.—Few small ranch diversions upstream. After high-water period entire flow is diverted for irrigation below gage.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed during winter. Rating curve used prior to December 29 is well defined below 200 second-feet, and the curve used after February 6 is well defined below 300 second-feet. Operation of water-stage recorder satisfactory except for short periods in January and February. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph except as indicated in footnote to table of daily discharge. Records good except those for estimated periods, which are fair.

*Discharge measurements of Little Weiser River near Indian Valley, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 3 | 1.27 | 77 | May 24 | 1.60 | 151 | July 24 | 0.72 | 10.9 |
| Apr. 9 | 1.44 | 108 | June 18 | 1.08 | 39.0 | Sept. 3 | .71 | 9.8 |
| May 7 | 1.84 | 250 | | | | | | |

*Daily discharge, in second-feet, of Little Weiser River near Indian Valley, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 13 | 34 | | | 70 | 66 | 233 | 88 | 22 | 7.5 | 16 |
| 2 | 10 | 13 | 102 | | 30 | 72 | 58 | 217 | 81 | 21 | 7.9 | 13 |
| 3 | 10 | 13 | 34 | | | 79 | 61 | 225 | 75 | 21 | 7.5 | 11 |
| 4 | 10 | 11 | 27 | | 200 | 90 | 61 | 217 | 70 | 21 | 7.5 | 10 |
| 5 | 10 | 9.6 | 22 | | | 81 | 70 | 221 | 66 | 19 | 7.1 | 9.5 |
| 6 | 14 | 11 | 22 | | | 70 | 77 | 229 | 63 | 20 | 7.1 | 9.5 |
| 7 | 15 | 9.6 | 19 | | 263 | 68 | 86 | 237 | 58 | 21 | 7.1 | 10 |
| 8 | 11 | 13 | 17 | 16 | 172 | 70 | 99 | 233 | 53 | 21 | 9.5 | 9.5 |
| 9 | 10 | 15 | 16 | | 97 | 70 | 115 | 213 | 52 | 17 | 9.1 | 9.5 |
| 10 | 9.2 | 17 | 17 | | 90 | 66 | 137 | 198 | 48 | 16 | 7.9 | 9.1 |
| 11 | 9.6 | 18 | 18 | | 82 | 72 | 155 | 186 | 46 | 15 | 7.5 | 8.7 |
| 12 | 10 | 17 | 17 | | 75 | 75 | 169 | 194 | 43 | 15 | 7.9 | 8.7 |
| 13 | 10 | 16 | 16 | | 68 | 86 | 172 | 190 | 42 | 14 | 7.5 | 8.3 |
| 14 | 10 | 12 | 10 | | 59 | 117 | 183 | 194 | 42 | 14 | 7.1 | 8.3 |
| 15 | 10 | 17 | 14 | | 58 | 134 | 202 | 198 | 42 | 14 | 6.7 | 8.7 |
| 16 | 10 | 16 | 15 | | 56 | 146 | 225 | 186 | 42 | 13 | 6.7 | 12 |
| 17 | 11 | 16 | 14 | | 47 | 140 | 242 | 190 | 44 | 13 | 6.7 | 13 |
| 18 | 11 | 16 | 15 | | 39 | 117 | 263 | 186 | 42 | 13 | 21 | 11 |
| 19 | 11 | 14 | 16 | | 34 | 107 | 271 | 186 | 70 | 12 | 21 | 11 |
| 20 | 11 | 12 | 15 | | 47 | 107 | 250 | 206 | 54 | 12 | 13 | 10 |
| 21 | 11 | 10 | 15 | | 54 | 104 | 229 | 186 | 46 | 12 | 11 | 10 |
| 22 | 11 | 10 | 16 | | 54 | 107 | 210 | 176 | 40 | 12 | 11 | 9.1 |
| 23 | 11 | 12 | 43 | | 48 | 120 | 206 | 166 | 37 | 12 | 9.5 | 10 |
| 24 | 11 | 15 | 35 | 18 | 50 | 117 | 180 | 158 | 33 | 11 | 8.7 | 9.5 |
| 25 | 12 | 17 | 23 | | 52 | 102 | 186 | 146 | 31 | 11 | 7.9 | 9.5 |
| 26 | 12 | 15 | 25 | | 58 | 92 | 202 | 134 | 29 | 11 | 7.9 | 10 |
| 27 | 12 | 15 | 22 | | 63 | 84 | 221 | 125 | 28 | 10 | 9.1 | 9.5 |
| 28 | 12 | 15 | 17 | | 68 | 77 | 233 | 117 | 26 | 9.5 | 8.7 | 9.5 |
| 29 | 13 | 14 | | | ------- | 68 | 246 | 109 | 24 | 9.1 | 7.9 | 9.5 |
| 20 | 13 | 15 | 13 | | ------- | 66 | 246 | 104 | 21 | 7.9 | 27 | 9.5 |
| 31 | 13 | ------- | | | ------- | 66 | ------- | 97 | ------- | 7.5 | 33 | ----- |

NOTE.—Discharge estimated because of ice Dec. 29 to Feb. 6 based on weather records and comparison with flow of Weiser River; interpolated Feb. 10-12.

*Monthly discharge of Little Weiser River near Indian Valley, Idaho, for the year ending September 30, 1926*

[Drainage area, 81 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 15 | 9.2 | 11.2 | 0.138 | 0.16 | 689 |
| November | 18 | 9.6 | 13.9 | .172 | .19 | 827 |
| December | 102 | | 22.5 | .278 | .32 | 1,380 |
| January | | | 17.0 | .210 | .24 | 1,050 |
| February | | | 83.0 | 1.02 | 1.06 | 4,610 |
| March | 146 | 66 | 91.6 | 1.13 | 1.30 | 5,630 |
| April | 271 | 58 | 171 | 2.11 | 2.35 | 10,200 |
| May | 237 | 97 | 182 | 2.25 | 2.59 | 11,200 |
| June | 88 | 21 | 47.9 | .591 | .66 | 2,850 |
| July | 22 | 7.5 | 14.4 | .178 | .21 | 885 |
| August | 38 | 6.7 | 10.5 | .130 | .15 | 646 |
| September | 16 | 8.3 | 10.1 | .125 | .14 | 601 |
| The year | | 6.7 | 56.0 | .691 | 9.37 | 40,600 |

### LITTLE WEISER RIVER NEAR CAMBRIDGE, IDAHO

LOCATION.—Near line between secs. 8 and 9, T. 14 N., R. 2 W., on Gladhart Lane, half a mile south of State highway, 4½ miles east of Cambridge, Washington County, 5 miles above mouth, and 7 miles below entrance of Grays Creek.

DRAINAGE AREA.—187 square miles (measured on topographic maps and base map of Idaho).

RECORDS AVAILABLE.—May 22, 1920, to July 24, 1926, when station was discontinued.

GAGE.—Vertical staff fastened to streamward side of right abutment of highway bridge; read by Konrad Gladhart.

DISCHARGE MEASUREMENTS.—Made from highway bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. Channel winding above and below gage. Banks may be overflowed at high stages. Control formed by well-defined gravel riffle about 75 feet below gage; subject to change during high water.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.20 feet on morning of May 5 (discharge, 377 second-feet); minimum stage, no flow after July 17.

1920–1926: Maximum discharge, based on well-defined watermark on gage, estimated 2,400 second-feet, February 8, 1924; no flow August 2 to September 14 and September 17–25, 1920, July 20 to September, 1924, for several weeks after August 2, 1925, and after July 17, 1926.

ICE.—Stage-discharge relation affected by ice; records discontinued during winter.

DIVERSIONS.—Numerous ditch and canal diversions above, chiefly for irrigation of land in Indian Valley.

REGULATION.—None except that due to diversions.

ACCURACY.—Stage-discharge relation changed slightly prior to March. Rating curve well defined below 600 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table except as indicated in footnote to table of daily discharge. Records good.

*Discharge measurements of Little Weiser River near Cambridge, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 4 | 2.84 | 259 | May 24 | 2.51 | 168 |
| Apr. 9 | 2.41 | 143 | June 18 | 1.57 | 11.5 |
| May 6 | 2.89 | 269 | | | |

*Daily discharge, in second-feet, of Little Weiser River near Cambridge, Idaho, for the year ending September 30, 1926*

| Day | Mar. | Apr. | May | June | July | Day | Mar. | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 96 | 245 | 79 | 2.0 | 16 | 217 | 231 | 204 | 14 | 2.0 |
| 2 | ------ | 87 | 231 | 77 | 2.0 | 17 | 217 | 260 | 190 | 14 | 2.0 |
| 3 | ------ | 87 | 245 | 76 | 2.0 | 18 | 190 | 307 | 190 | 13 | |
| 4 | 275 | 98 | 245 | 65 | 2.5 | 19 | 165 | 307 | 190 | 16 | |
| 5 | 245 | 102 | 359 | 62 | 2.0 | 20 | 165 | 307 | 204 | 32 | .0 |
| 6 | 204 | 113 | 275 | 56 | 2.5 | 21 | 146 | 307 | 190 | 23 | |
| 7 | 190 | 117 | 245 | 43 | 2.5 | 22 | 143 | 307 | 190 | 22 | |
| 8 | 178 | 123 | 245 | 37 | 2.5 | 23 | 163 | 231 | 178 | 20 | |
| 9 | 217 | 141 | 217 | 34 | 2.5 | 24 | 153 | 204 | 165 | 18 | .0 |
| 10 | 178 | 137 | 245 | 34 | 2.5 | 25 | 141 | 204 | 151 | 15 | ------ |
| 11 | 178 | 178 | 217 | 26 | 2.0 | 26 | 137 | 204 | 134 | 11 | ------ |
| 12 | 165 | 190 | 190 | 21 | 2.0 | 27 | 137 | 217 | 137 | 7.0 | ------ |
| 13 | 165 | 190 | 178 | 14 | 2.0 | 28 | 134 | 217 | 108 | 7.0 | ------ |
| 14 | 204 | 204 | 178 | 14 | 2.0 | 29 | 98 | 217 | 98 | 7.0 | ------ |
| 15 | 204 | 231 | 204 | 14 | 2.0 | 30 | 94 | 260 | 96 | 2.5 | ------ |
| | | | | | | 31 | 98 | ------ | 83 | ------ | ------ |

NOTE.—No flow after July 17.

*Monthly discharge of Little Weiser River near Cambridge, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| March 4-31 | 275 | 94 | 171 | 9,500 |
| April | 307 | 87 | 196 | 11,700 |
| May | 359 | 83 | 194 | 11,900 |
| June | 79 | 2.5 | 29.1 | 1,730 |
| July 1-24 | 2.5 | 0 | 1.54 | 73.3 |
| The period | | | | 34,900 |

### CRANE CREEK RESERVOIR NEAR MIDVALE, IDAHO

LOCATION.—In SE. ¼ sec. 19, T. 12 N., R. 2 W., 12 miles southeast of Midvale, Washington County.

DRAINAGE AREA.—269 square miles (measured on topographic maps).

RECORDS AVAILABLE.—November 25, 1923, to September 30, 1926.

GAGE.—Sloping staff consisting of painted chisel marks on gate-control pipe at southeast end of dam above tunnel outlet; read by N. B. Wood, Paul Fanning, and M. S. Sipe.

EXTREMES OF STAGE.—Maximum stage recorded during year, 45.4 feet at 5 p. m. April 9; minimum stage recorded, 22.1 feet November 5.

1924–1926: Maximum stage recorded, that of April 9, 1926; minimum stage recorded, 9.4 feet November 25, 1923.

COOPERATION.—Gage-height record furnished by Crane Creek Reservoir Administration Board.

Stored water from this reservoir is used for irrigation in the lower Weiser Valley. Elevation of spillway crest referred to gage datum is 55 feet, at which stage the capacity of reservoir is reported to be about 60,000 acre-feet, about 3,300 acres being submerged. Elevation at bottom of outlet gate corresponds to approximately 8.0 feet on gage, at which stage the usable storage is zero.

*Daily gage height, in feet, of Crane Creek Reservoir near Midvale, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | 45.3 | 45.0 | 43.85 | 41.15 | 36.7 | 32.9 |
| 2 | 22.95 | | | | | | 45.3 | 45.0 | 43.8 | 40.9 | 36.55 | 32.8 |
| 3 | 22.80 | | | 23.5 | | 43.7 | 45.3 | 45.0 | 43.75 | 40.75 | 36.4 | 32.75 |
| 4 | | | | | | | 45.3 | 45.0 | 43.6 | 40.5 | 36.2 | 32.6 |
| 5 | | 22.1 | | | | | 45.3 | 45.0 | 43.5 | 40.4 | 36.1 | |
| 6 | 22.4 | | 22.4 | | | | 45.3 | 45.0 | 43.5 | 40.35 | 35.9 | 32.45 |
| 7 | | | | | 35.2 | 44.2 | 45.3 | 45.0 | 43.45 | 40.25 | 35.75 | 32.4 |
| 8 | | | | | | | 45.3 | 45.0 | 43.4 | 40.1 | 35.55 | 32.3 |
| 9 | | | | | | | 45.35 | 45.0 | 43.35 | 40.0 | 35.4 | 32.25 |
| 10 | 22.2 | | | 23.5 | | | 45.3 | 45.0 | 43.3 | 39.9 | 35.15 | 32.15 |
| 11 | | | | | | | 45.3 | 45.0 | 43.25 | 39.85 | 34.95 | 32.05 |
| 12 | | | | | | | 45.3 | 45.0 | 43.2 | 39.7 | 34.8 | 31.9 |
| 13 | | | 22.5 | | | | 45.3 | 44.9 | 43.0 | 39.65 | 34.65 | 31.85 |
| 14 | | | | | | 44.9 | 45.3 | 44.8 | 42.7 | 39.5 | 34.6 | 31.75 |
| 15 | | | | | 39.5 | | 45.3 | 44.7 | 42.6 | 39.4 | 34.4 | 31.7 |
| 16 | | | | | 39.7 | | 45.3 | 44.7 | 42.45 | 39.35 | 34.2 | 31.65 |
| 17 | | | | 23.5 | 40.2 | | 45.3 | 44.7 | 42.3 | 39.2 | 34.15 | 31.55 |
| 18 | | | | | 40.4 | | 45.2 | 44.6 | 42.18 | 39.1 | 34.1 | 31.5 |
| 19 | | | | | 40.6 | | 45.2 | 44.5 | 42.05 | 39.0 | 34.05 | 31.4 |
| 20 | | | 22.7 | | 40.8 | | 45.2 | 44.4 | 42.0 | 38.8 | 33.8 | 31.3 |
| 21 | | | | | | 45.2 | 45.2 | 44.3 | 41.9 | 38.6 | 33.75 | 31.2 |
| 22 | | | | | | | 45.2 | 44.3 | 41.85 | 38.45 | 33.7 | 31.05 |
| 23 | | | | | | 45.2 | 45.2 | 44.2 | 41.75 | 38.2 | 33.65 | 30.9 |
| 24 | | 22.2 | | 23.5 | | | 45.1 | 44.3 | 41.65 | 38.15 | 33.6 | |
| 25 | | | | | | | 45.1 | 44.2 | 41.6 | 37.9 | 33.55 | 30.7 |
| 26 | | | | | | | 45.1 | 44.15 | 41.55 | 37.75 | 33.5 | 30.6 |
| 27 | | | 23.4 | | | | 45.1 | | 41.5 | 37.55 | | 30.55 |
| 28 | | | | | | 45.3 | 45.1 | 44.05 | 41.4 | 37.35 | 33.3 | 30.45 |
| 29 | | | | | | | 45.1 | 44.0 | 41.35 | 37.15 | 33.2 | 30.35 |
| 30 | | | | | | | 45.1 | 43.95 | 41.25 | 37.0 | 33.1 | 30.3 |
| 31 | | | | 24.7 | | 45.3 | | 43.9 | | 36.9 | 33.0 | |

CRANE CREEK NEAR MIDVALE, IDAHO

LOCATION.—In SE. ¼ sec. 19, T. 12 N., R. 2 W., 400 feet below Crane Creek Dam and 12 miles southeast of Midvale, Washington County. No tributaries between dam and station; Last Chance Creek enters three-quarters of a mile below station.

DRAINAGE AREA.—269 square miles (measured on topographic maps).

RECORDS AVAILABLE.—October 30, 1910, to April 8, 1916; May 1, 1924, to September 30, 1926.

GAGE.—Au water-stage recorder on right bank, installed May 2, 1924; inspected by M. S. Sipe.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—Bed composed of lava rocks and coarse gravel, very rough. One channel at all stages. Control formed by Cippoletti weir, crest of which is 20 feet long, installed in concrete, 25 feet below gage. Average elevation of weir crest corresponds to 0.02 foot on gage.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.70 feet from 8.30 a. m. July 26 to 8 p. m. July 28 (discharge, 163 second-feet); channel reported dry 11 a. m. October 15 to 5 p. m. March 23.

1910–1916, 1924–1926: Maximum stage recorded, 8.9 feet December 3, 1910 (discharge, 4,240 second-feet); no flow reported at various times when gates in dam are closed.

DIVERSIONS.—No large diversions above gage. Flood waters are impounded in Crane Creek Reservoir and flow past gage, therefore shows only the amount of water released through the dam and does not necessarily represent the natural flow of Crane Creek.

REGULATION.—Flow completely regulated by gates at dam.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined below 300 second-feet. Operation of water-stage recorder satisfactory October 1–15, March 30 to April 4, April 9–21, April 28 to May 12, May 24 to September 17, and September 21–30; daily staff-gage readings to hundredths used at other times when channel was not dry. Daily discharge ascertained by applying to rating table daily gage height or mean daily gage height determined by inspection of recorder graph, except for estimated periods indicated in footnote to table of daily discharge.

COOPERATION.—Services of observer furnished by Crane Creek Reservoir Administration Board. Station equipment furnished by Southern Idaho Land & Power Co.

*Discharge measurements of Crane Creek near Midvale, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 9 | 0.57 | 25.5 | June 18 | 1.48 | 130 |
| May 6 | .46 | 18.2 | July 24 | 1.43 | 118 |
| May 24 | .81 | 48.9 | | | |

*Daily discharge, in second-feet, of Crane Creek near Midvale, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 21 | | | | | | 14 | 11 | 48 | 128 | 103 | 48 |
| 2 | 21 | | | | | | 14 | 11 | 48 | 128 | 103 | 51 |
| 3 | 20 | | | | | | 14 | 11 | 48 | 128 | 102 | 52 |
| 4 | 20 | | | | | | 20 | 15 | 48 | 128 | 100 | 52 |
| 5 | 20 | | | | | | 25 | 18 | 48 | 128 | 125 | 50 |
| 6 | 19 | | | | | | 27 | 18 | 48 | 91 | 140 | 52 |
| 7 | 19 | | | | | | 25 | 19 | 48 | 71 | 140 | 52 |
| 8 | 18 | | | | | | 27 | 18 | 47 | 63 | 141 | 52 |
| 9 | 17 | | | | | | 26 | 17 | 47 | 48 | 141 | 52 |
| 10 | 17 | | | | | | 26 | 21 | 47 | 52 | 138 | 51 |
| 11 | 17 | | | | | 0 | 26 | 24 | 47 | 52 | 129 | 48 |
| 12 | 17 | | | | | | 15 | 24 | 77 | 52 | 107 | 48 |
| 13 | 17 | | | | | | 7 | 27 | 117 | 79 | 89 | 48 |
| 14 | 17 | | | | | | 6 | 40 | 129 | 95 | 88 | 47 |
| 15 | 7 | 0 | 0 | 0 | 0 | | 6 | 50 | 131 | 95 | 88 | 47 |
| 16 | | | | | | | 6 | 50 | 148 | 104 | 73 | 47 |
| 17 | | | | | | | 6 | 50 | 156 | 95 | 59 | 48 |
| 18 | | | | | | | 6 | 50 | 137 | 83 | 57 | 51 |
| 19 | | | | | | | 7 | 50 | 105 | 83 | 42 | 52 |
| 20 | | | | | | | 11 | 50 | 95 | 104 | 46 | 47 |
| 21 | | | | | | | 11 | 50 | 71 | 124 | 51 | 47 |
| 22 | | | | | | | 11 | 50 | 70 | 131 | 50 | 50 |
| 23 | 0 | | | | | 1 | 11 | 50 | 69 | 145 | 50 | 50 |
| 24 | | | | | | | 12 | 49 | 69 | 125 | 51 | 51 |
| 25 | | | | | | | 12 | 49 | 59 | 125 | 51 | 50 |
| 26 | | | | | | 2 | 12 | 49 | 46 | 151 | 51 | 47 |
| 27 | | | | | | | 12 | 49 | 48 | 163 | 51 | 47 |
| 28 | | | | | | | 11 | 48 | 51 | 157 | 51 | 48 |
| 29 | | | | | ------- | | 11 | 48 | 87 | 118 | 51 | 49 |
| 30 | | | | | ------- | 2 | 11 | 48 | 121 | 102 | 51 | 47 |
| 31 | | ------- | | | ------- | 6 | ------- | 48 | ------- | 103 | 51 | ------ |

NOTE.—Discharge estimated Oct. 15 and Mar. 23, based on gage heights for part days and observer's notes; estimated Mar. 24–29, based on known gate openings in dam and observer's notes. Gates in dam reported closed from 11 a. m. Oct. 15 to 5 p. m. Mar. 23.

*Monthly discharge of Crane Creek near Midvale, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 21 | 0 | 8.6 | 529 |
| March | 6 | 0 | .7 | 40 |
| April | 27 | 6 | 14.3 | 851 |
| May | 50 | 11 | 35.9 | 2,210 |
| June | 156 | 46 | 77.0 | 4,580 |
| July | 163 | 48 | 105 | 6,460 |
| August | 141 | 42 | 82.9 | 5,100 |
| September | 52 | 47 | 49.4 | 2,940 |
| The year | 163 | 0 | 31.3 | 22,700 |

CRANE CREEK AT MOUTH, NEAR WEISER, IDAHO

LOCATION.—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 12 miles northeast of Weiser, Washington County.

DRAINAGE AREA.—312 square miles (measured on topographic maps).

RECORDS AVAILABLE.—July 14, 1920, to September 30, 1926.

GAGE.—Friez water-stage recorder on right bank, installed July 21, 1920; inspected by O. A. Purcell.

DISCHARGE MEASUREMENTS.—Made from highway bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of cobbles and boulders; very rough. Concrete control installed August 21, 1920, 100 feet below gage. Above stage of about 4.0 feet stream flows in two channels. Stage of zero flow, gage height $1.25 \pm 0.05$ foot; determined May 20, 1922.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 5.60 feet February 6 (discharge, 1,260 second-feet); minimum stage recorded, 1.52 feet at 4 to 7 a. m. April 24 (discharge, 2 second-feet).

1920–1926: Maximum stage from well-defined marks on gage, 6.80 feet, on or about February 7, 1925 (discharge, about 2,350 second-feet); minimum stage recorded, 1.30 feet January 21, 1922 (discharge, 0.4 second-foot).

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Canal of Washington County Irrigation District, which diverts about 4 miles above gage, is principal diversion. Small ranch diversions a short distance above gage.

REGULATION.—Flow is regulated by head gates at Crane Creek Reservoir and by diversions above.

ACCURACY.—Stage-discharge relation changed February 5 and July 24 to August 3. Two rating curves used well defined throughout; the first applicable October 1 to February 5, and the second applicable February 6 to July 23. Operation of water-stage recorder satisfactory except for short periods in July, August, and September. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph except as noted in footnote to daily-discharge table. Shifting-control method used July 24 to September 30. Records good except those for estimated periods, which are fair.

*Discharge measurements of Crane Creek at mouth, near Weiser, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 6 | 2.11 | 22.1 | May 20 | 2.12 | 22.5 | Sept. 4 | 2.08 | 16.4 |
| Apr. 11 | 2.16 | 25.0 | June 15 | 2.91 | 86 | | | |
| May 1 | 1.86 | 9.7 | July 20 | 2.80 | 72 | | | |

*Daily discharge, in second-feet, of Crane Creek at mouth near Weiser, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9 | 5 | 5 | 5 | 7 | 31 | 10 | 10 | 16 | 79 | 67 | |
| 2 | 10 | 5 | 6 | 5 | 6 | 28 | 16 | 10 | 15 | 81 | 65 | 17 |
| 3 | 10 | 5 | 5 | 5 | 8 | 29 | 16 | 5 | 13 | 83 | 63 | |
| 4 | 10 | 5 | 5 | 5 | 97 | 29 | 17 | 5 | 13 | 83 | 60 | 17 |
| 5 | 10 | 5 | 5 | 5 | 111 | 23 | 17 | 8 | 12 | | 70 | |
| 6 | 10 | 5 | 5 | 5 | 572 | 17 | 24 | 7 | 10 | 50 | 94 | |
| 7 | 10 | 5 | 5 | 5 | 234 | 14 | 24 | 7 | 10 | | 95 | |
| 8 | 8 | 5 | 5 | 5 | 133 | 12 | 27 | 7 | 10 | | 98 | 16 |
| 9 | 8 | 5 | 5 | 5 | 88 | 12 | 26 | 7 | 9 | 20 | 96 | |
| 10 | 8 | 5 | 5 | 5 | 60 | 14 | 25 | 7 | 9 | | 96 | |
| 11 | 8 | 5 | 5 | 5 | 69 | 11 | 25 | 10 | 10 | 16 | 90 | |
| 12 | 9 | 5 | 6 | 5 | 32 | 10 | 27 | 10 | 22 | 17 | 71 | 15 |
| 13 | 9 | 5 | 5 | 5 | 22 | 9 | 12 | 9 | 58 | 26 | 52 | |
| 14 | 9 | 5 | 5 | 5 | 19 | 9 | 7 | 10 | 83 | 51 | 49 | |
| 15 | 12 | 5 | 5 | 5 | 16 | 8 | 6 | 28 | 85 | 51 | 48 | |
| 16 | 10 | 5 | 5 | 5 | 35 | 8 | 5 | 27 | 104 | 55 | 42 | 16 |
| 17 | 6 | 5 | 4 | 5 | 42 | 7 | 4 | 26 | 116 | 82 | 28 | |
| 18 | 6 | 5 | 5 | 5 | 40 | 8 | 3 | 24 | 116 | 74 | 29 | |
| 19 | 6 | 5 | 5 | 5 | 31 | 7 | 3 | 24 | 70 | 73 | 22 | 16 |
| 20 | 5 | 5 | 5 | 5 | 33 | 7 | 4 | 23 | 61 | 84 | 19 | |
| 21 | 5 | 5 | 5 | 5 | 39 | 6 | 5 | 21 | 33 | 110 | 22 | |
| 22 | 5 | 5 | 5 | 5 | 48 | 6 | 4 | 20 | 29 | 116 | 20 | 20 |
| 23 | 5 | 5 | 6 | 5 | 39 | 6 | 3 | 19 | 30 | 146 | 18 | |
| 24 | 5 | 5 | 7 | 5 | 48 | 6 | 3 | 19 | 29 | 120 | | |
| 25 | 5 | 4 | 6 | 5 | 94 | 11 | 9 | 19 | 26 | 116 | | |
| 26 | 4 | 4 | 6 | 5 | 57 | 9 | 10 | 19 | 14 | | 17 | 25 |
| 27 | 4 | 5 | 5 | 6 | 41 | 8 | 10 | 19 | 12 | 150 | | 25 |
| 28 | 4 | 5 | 5 | 6 | 38 | 7 | 10 | 19 | 13 | | | 26 |
| 29 | 5 | 5 | 5 | 6 | ------- | 5 | 10 | 18 | 26 | 96 | 17 | 27 |
| 30 | 5 | 5 | 5 | 7 | ------- | 5 | 10 | 16 | 67 | 75 | 17 | 26 |
| 31 | 5 | ------- | 5 | 7 | ------- | 5 | ------- | 16 | ------- | 69 | | ------ |

NOTE.—Gage-height record missing July 4–10, 26–28, Aug. 24–28, Aug. 30 to Sept. 3, Sept. 5–11, 13–18, and 20–25; discharge estimated on basis of flow from Crane Creek Reservoir, and in diversion of Crane Creek Irrigation District Canal.

*Monthly discharge of Crane Creek at mouth, near Weiser, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 12 | 4 | 7.3 | 449 |
| November | 5 | 4 | 4.9 | 292 |
| December | 7 | 4 | 5.2 | 320 |
| January | 7 | 5 | 5.2 | 320 |
| February | 572 | 6 | 73.5 | 4,080 |
| March | 31 | 5 | 11.8 | 726 |
| April | 27 | 3 | 12.4 | 738 |
| May | 28 | 5 | 15.1 | 928 |
| June | 116 | 9 | 37.4 | 2,230 |
| July | ---------- | ---------- | 76.2 | 4,690 |
| August | 98 | ---------- | 46.8 | 2,880 |
| September | 27 | ---------- | 18.5 | 1,100 |
| The year | 572 | 3 | 25.9 | 18,800 |

### CRANE CREEK IRRIGATION DISTRICT CANAL NEAR WEISER, IDAHO

LOCATION.—In sec. 7, T. 11 N., R. 3 W., 3½ miles below diversion dam of Washington County Irrigation District and 12 miles northeast of Weiser, Washington County.

RECORDS AVAILABLE.—June 23, 1920, to September 30, 1926, when station was discontinued.

GAGE.—Friez water-stage recorder on right bank 125 feet above end of flume; installed May 5, 1923; gage inspected by N. V. Ritzins and C. C. Herner.

DISCHARGE MEASUREMENTS.—Made from plank across canal.

CHANNEL AND CONTROL.—Section of wooden flume and earth canal below gage forms control.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.88 feet at 8.10 p. m. July 8 (discharge, 37 second-feet); canal dry during nonirrigation season April 27–30, July 17–26, and probably dry April 12–16, 25, 26, and May 1.

1920–1926: Maximum stage recorded, 2.83 feet from 4 to 8 a. m. July 15, 1920 (discharge, 79 second-feet); canal usually dry during nonirrigation periods.

DIVERSIONS.—None between gage and point of diversion.

REGULATION.—Flow controlled by head gates at diversion dam.

ACCURACY.—Stage-discharge relation changed during year. Two rating curves one used October 1 to May 5 and the other used May 18 to September 4 are well defined. Operation of water-stage recorder satisfactory except for June 23 to July 10, July 13–30, when two staff readings daily were obtained. Daily discharge ascertained by applying to rating table daily staff-gage reading or mean daily gage height determined by inspection of recorder graph, except as noted in footnote to table of daily discharge. Shifting-control method used May 6–17. Records good.

COOPERATION.—Gage-height record furnished by Washington County Irrigation District

The Crane Creek Irrigation District Canal diverts water from the south side of Crane Creek in sec. 3, T. 11 N., R. 3 W., 5½ miles below Crane Creek Reservoir, where water is released and transported through canal for irrigation of lands in Washington County Irrigation District, aggregating 10,000 acres of which less than 1,200 acres were irrigated in 1926. The district operates about 100 miles of canal and irrigation structures under one management.

*Discharge measurements of Crane Creek Irrigation District Canal near Weiser, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 1 | 0.19 | [a] 0.2 | June 15 | 1.82 | 35.9 |
| May 3 | .83 | 7.9 | Sept. 4 | 1.73 | 30.5 |
| May 20 | 1.55 | 23.9 | | | |

[a] Estimated; all passing through wasteway.

*Daily discharge, in second-feet, of Crane Creek Irrigation District Canal near Wieser, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 1 | 12 | | 0 | 28 | 36 | 20 | 30 |
| 2 | 12 | | 1 | 30 | 36 | 21 | 32 |
| 3 | 12 | | 5 | 32 | 36 | 23 | 32 |
| 4 | 12 | | 9 | 32 | 36 | 24 | 32 |
| 5 | 11 | | 10 | 32 | 36 | 26 | |
| 6 | 11 | | 12 | 32 | 34 | 27 | |
| 7 | 11 | | 13 | 32 | 34 | 29 | |
| 8 | 11 | | 13 | 32 | 36 | 30 | |
| 9 | 11 | | 13 | 34 | 29 | 31 | |
| 10 | 11 | | 12 | 33 | 34 | 30 | |
| 11 | 11 | 5 | 13 | 32 | 36 | 29 | |
| 12 | 11 | | 14 | 32 | 35 | 30 | |
| 13 | 10 | | 14 | 34 | 34 | 31 | |
| 14 | 10 | | 15 | 35 | 34 | 30 | |
| 15 | 4 | 0 | 17 | 34 | 34 | 30 | |
| 16 | | | 19 | 32 | 30 | 29 | |
| 17 | | 6 | 21 | 34 | | 29 | |
| 18 | | 6 | 23 | 26 | | 29 | |
| 19 | | 6 | 23 | 34 | | 25 | |
| 20 | | 7 | 25 | 36 | | 28 | |
| 21 | | 7 | 26 | 34 | 0 | 31 | |
| 22 | | 9 | 26 | 34 | | | |
| 23 | | 10 | 26 | 32 | | | |
| 24 | | 7 | 26 | 34 | | | |
| 25 | | 0 | 26 | 32 | | 30 | |
| 26 | | 0 | 27 | 29 | | | |
| 27 | | 0 | 27 | 30 | 4 | | |
| 28 | | 0 | 27 | 30 | 11 | 31 | |
| 29 | | 0 | 28 | 30 | 11 | 31 | |
| 30 | | 0 | 28 | 33 | 15 | 26 | |
| 31 | | | 28 | | 18 | 28 | |

NOTE.—Discharge estimated Apr. 11–16 and Aug. 22–27 based on comparison with stations on Crane Creek below reservoir and at mouth; discharge July 16 and 27 based on known changes in gate openings at head of canal. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Crane Creek Irrigation District Canal near Weiser, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October 1–15 | 12 | 4 | 10.7 | 318 |
| April 11–30 | 10 | 0 | 3.15 | 125 |
| May | 28 | 0 | 18.3 | 1,130 |
| June | 36 | 26 | 32.1 | 1,910 |
| July | 36 | 0 | 19.6 | 1,210 |
| August | 20 | | 28.3 | 1,740 |
| September 1–4 | 32 | 30 | 31.5 | 250 |

### WEISER IRRIGATION DISTRICT CANAL NEAR WEISER, IDAHO

LOCATION.—In sec. 32, T. 11 N., R. 4 W., at Durbin ranch, 1½ miles below headworks of canal and 7 miles above Weiser, Washington County.

RECORDS AVAILABLE.—April 29, 1920, to September 20, 1926.

GAGE.—Friez water-stage recorder adjacent to left side of concrete rating flume; inspected by D. E. Robison and W. L. McGinnis, ditch walkers. Zero of gage is at bottom of rating flume.

DISCHARGE MEASUREMENTS.—Made from foot walk across concrete rating flume.

CHANNEL AND CONTROL.—Canal above and below gage is about 20 feet wide. Bed composed of hard clay and gravel; fairly permanent. Banks are clean and not subject to appreciable growth of moss or weeds.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 3.43 feet at 9 a. m. May 5 (discharge, 219 second-feet). Canal reported practically dry from December to March and April 17 to 18.

1920–1926: Maximum discharge recorded, that of May 5, 1926; canal usually dry except during irrigation season.

DIVERSIONS.—One farm lateral diverts about a quarter of a mile above gage.

REGULATION.—Flow regulated at Luck waste gate, half a mile above, which in practice forms the head of the canal, although actual diversion from Weiser River is located about 1½ miles above gage. Water from waste gate returns to Weiser River through slough which formerly was main channel of river.

ACCURACY.—Stage-discharge relation not permanent. Three well-defined rating curves used; one October 1–26, another April 7 to May 21, and July 27 to September 20, and a third May 29 to July 20. Operation of water-stage recorder satisfactory except October 18 to 23, when staff gage was read to hundredths once daily. Daily discharge ascertained by applying to rating table daily staff-gage reading or mean daily gage height obtained by inspection of recorder graph except as indicated in footnote to table of daily discharge. Shifting-control method used May 22–28 and July 21–26. Records excellent except those from May to July, which are good.

COOPERATION.—Gage-height record furnished by Weiser Irrigation District.

The Weiser Irrigation District Canal diverts water from north side of 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 Irrigation District and Weiser Bench Irrigation District near Weiser. The district maintains about 20 miles of main canal.

*Discharge measurements of Weiser Irrigation District Canal near Weiser, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Apr. 11 | 2.29 | 133 | June 15 | 2.57 | 141 | Sept. 4 | 1.30 | 68 |
| Apr. 30 | 1.85 | 102 | July 20 | 1.81 | 91 | | | |
| May 20 | 2.86 | 174 | Sept. 2 | 1.44 | 77 | | | |

*Daily discharge, in second-feet, of Weiser Irrigation District Canal near Weiser, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Apr. | May | June | July | Aug. | Sept |
|---|---|---|---|---|---|---|---|
| 1 | 77 | ------ | 98 | 163 | 121 | 89 | 61 |
| 2 | 77 | ------ | 96 | 163 | 116 | 81 | 76 |
| 3 | 75 | ------ | 158 | 168 | 119 | 75 | 71 |
| 4 | 74 | ------ | 192 | 168 | 120 | 70 | 67 |
| 5 | 73 | ------ | 207 | 163 | 120 | 72 | 65 |
| 6 | 75 | ------ | 187 | 156 | 112 | 108 | 62 |
| 7 | 78 | 55 | 179 | 167 | 72 | 108 | 57 |
| 8 | 80 | 118 | 169 | 168 | 65 | 114 | 55 |
| 9 | 80 | 132 | 163 | 159 | 56 | 112 | 55 |
| 10 | 79 | 133 | 163 | 144 | 52 | 112 | 55 |
| 11 | 79 | 133 | 158 | 124 | 47 | 103 | 55 |
| 12 | 79 | 133 | 158 | 95 | 42 | 88 | 54 |
| 13 | 80 | 135 | 164 | 115 | 42 | 73 | 54 |
| 14 | 80 | 168 | 169 | 146 | 72 | 69 | 50 |
| 15 | 80 | 178 | 170 | 142 | 74 | 68 | 49 |
| 16 | 80 | 100 | 166 | 158 | 76 | 69 | 51 |
| 17 | 79 | 0 | 166 | 170 | 99 | 51 | 54 |
| 18 | 79 | 0 | 164 | 182 | 90 | 54 | 60 |
| 19 | 79 | 90 | 163 | 155 | 88 | 48 | 66 |
| 20 | 79 | 175 | 184 | 171 | 92 | 48 | 30 |
| 21 | 79 | 176 | 192 | 170 | 121 | 67 | ------ |
| 22 | 79 | 170 | 189 | 146 | 130 | 46 | ------ |
| 23 | 79 | 164 | 183 | 144 | 142 | 46 | ------ |
| 24 | 79 | 162 | 176 | 140 | 130 | 45 | ------ |
| 25 | 80 | 171 | 170 | 130 | 130 | 45 | ------ |
| 26 | 50 | 172 | 161 | 113 | 130 | 39 | ------ |
| 27 | ------ | 175 | 155 | 87 | 164 | 40 | ------ |
| 28 | ------ | 183 | 151 | 69 | 162 | 39 | ------ |
| 29 | ------ | 197 | 150 | 66 | 138 | 39 | ------ |
| 30 | ------ | 140 | 152 | 103 | 120 | 48 | ------ |
| 31 | ------ | ------ | 154 | ------ | 96 | 56 | ------ |

NOTE.—Discharge estimated Oct. 26, Apr. 7, 16–19, and Sept. 20 based on known gage-height graph for part of day and assumed graph for rest of day.

*Monthly discharge of Weiser Irrigation District Canal near Weiser, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October 1–26 | 80 | ------ | 77.2 | 3,980 |
| April 7–30 | 197 | 0 | 136 | 6,480 |
| May | 207 | 96 | 165 | 10,100 |
| June | 182 | 66 | 142 | 8,450 |
| July | 162 | 42 | 101 | 6,210 |
| August | 114 | 39 | 68.5 | 4,210 |
| September 1–20 | 76 | ------ | 57.4 | 2,280 |

### SALMON RIVER BELOW VALLEY CREEK, NEAR STANLEY, IDAHO

LOCATION.—In S. ½ SE. ¼ SE. ¼ sec. 34, T. 11 N., R. 13 E., three-quarters of a mile below mouth of Valley Creek and 1¼ miles northeast of Stanley, Custer County.

DRAINAGE AREA.—535 square miles (measured on topographic maps).

RECORDS AVAILABLE.—July 17, 1925, to September 30, 1926.

GAGE.—Au water-stage recorder on left bank, installed October 13, 1925. Vertical staff at same site used prior to that date; read by W. L. Rose and Mrs W. H. Woolley.

DISCHARGE MEASUREMENTS.—Made from cable 75 feet below gage or by wading

CHANNEL AND CONTROL.—Bed composed of coarse gravel, cobbles, and boulders; practically permanent. Banks low; one channel at all stages. Control fairly well defined. Zero of gage is at 6,189.24 feet, mean sea level.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 2.32 feet 6 to 7 a. m. May 5 (discharge, 1,970 second-feet); minimum discharge probably less than 225 second-feet occurred during estimated period December 25 to January 15.

1925–26: Maximum stage recorded, that of May 5, 1926; minimum discharge occurred during estimated period December 25, 1925, to January 15, 1926.

DIVERSIONS.—Few small ranch diversions above gage.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed during year. Two rating curves used; one applicable October 1 to November 4 is well defined between 300 and 1,200 second-feet, and the other applicable March 9 to September 30 is well defined between 200 and 1,200 second-feet. Operation of water-stage recorder satisfactory except November 5 to March 8. Daily discharge determined by applying to rating table mean daily gage height determined by inspection of recorder graph except as indicated in footnote to table of daily discharge. Records good except for estimated periods, for which they are poor.

*Discharge measurements of Salmon River below Valley Creek, near Stanley, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 14 | 1.05 | 375 | Apr. 18 | 1.64 | 997 | June 3 | 1.64 | 974 |
| Do | 1.05 | 375 | May 11 | 1.58 | 894 | June 5 | 1.70 | 1,060 |
| Mar. 10 | .81 | 278 | May 12 | 1.54 | 818 | July 8 | 1.10 | 446 |
| Apr. 10 | 1.16 | 465 | June 3 | 1.67 | 1,020 | Sept. 30 | .82 | 237 |
| Apr. 17 | 1.50 | 847 | Do | 1.65 | 951 | | | |

*Daily discharge, in second-feet, of Salmon River below Valley Creek, near Stanley, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 346 | 341 | | | | | 312 | 1,160 | 1,000 | 537 | 246 | 270 |
| 2 | 346 | 328 | | | | | 295 | 1,170 | 988 | 510 | 241 | 265 |
| 3 | 346 | 316 | | | | | 318 | 1,170 | 975 | 478 | 246 | 260 |
| 4 | 346 | 303 | | | | | 312 | 1,310 | 988 | 470 | 246 | 255 |
| 5 | 346 | | | | | 245 | 318 | 1,840 | 1,020 | 462 | 241 | 246 |
| 6 | 392 | | | | 260 | | 354 | 1,580 | 1,050 | 454 | 236 | 241 |
| 7 | 369 | | | | | | 388 | 1,410 | 1,060 | 430 | 241 | 246 |
| 8 | 363 | | 300 | 225 | | | 430 | 1,260 | 1,060 | 430 | 260 | 246 |
| 9 | 357 | | | | | 255 | 470 | 1,100 | 1,020 | 423 | 260 | 246 |
| 10 | 357 | | | | | 255 | 486 | 1,000 | 962 | 395 | 250 | 246 |
| 11 | 367 | | | | | 255 | 528 | 914 | 902 | 381 | 250 | 246 |
| 12 | 376 | 320 | | | | 255 | 650 | 868 | 844 | 367 | 250 | 241 |
| 13 | 386 | | | | | 265 | 690 | 822 | 788 | 354 | 246 | 241 |
| 14 | 374 | | | | | 270 | 722 | 799 | 744 | 348 | 236 | 241 |
| 15 | 369 | | | | | 275 | 766 | 810 | 700 | 330 | 232 | 241 |
| 16 | 363 | | | | | 285 | 833 | 833 | 660 | 324 | 232 | 241 |
| 17 | 363 | | | | | 295 | 879 | 925 | 620 | 324 | 232 | 241 |
| 18 | 357 | | | | | 295 | 988 | 975 | 600 | 306 | 265 | 241 |
| 19 | 352 | | | | | 290 | 1,020 | 1,050 | 630 | 300 | 295 | 241 |
| 20 | 346 | | | | 250 | 290 | 988 | 1,320 | 610 | 295 | 285 | 241 |
| 21 | 346 | | 275 | | | 300 | 950 | 1,430 | 564 | 290 | 275 | 241 |
| 22 | 346 | | | | | 312 | 902 | 1,400 | 528 | 285 | 275 | 241 |
| 23 | 346 | | | | | 336 | 822 | 1,400 | 510 | 280 | 265 | 241 |
| 24 | 335 | | | 250 | | 336 | 788 | 1,430 | 494 | 275 | 265 | 236 |
| 25 | 346 | | | | | 324 | 788 | 1,340 | 486 | 270 | 260 | 232 |
| 26 | 335 | 310 | | | | 306 | 844 | 1,180 | 486 | 265 | 260 | 236 |
| 27 | 335 | | | | | 295 | 890 | 1,090 | 486 | 260 | 260 | 241 |
| 28 | 335 | | 225 | | | 306 | 938 | 1,040 | 486 | 255 | 260 | 241 |
| 29 | 341 | | | | ------- | 280 | 1,020 | 1,020 | 486 | 250 | 260 | 246 |
| 30 | 335 | | | | ------- | 306 | 1,120 | 1,050 | 486 | 250 | 260 | 255 |
| 31 | 330 | ------- | | | ------- | 306 | ------- | 1,010 | ------- | 246 | 270 | ------- |

NOTE.—Discharge estimated on account of missing gage heights Nov. 5 to Mar. 8. Discharge interpolated Oct. 8, 11, 12, Nov. 2, 3.

*Monthly discharge of Salmon River below Valley Creek near Stanley, Idaho, for the year ending September 30, 1926*

[Drainage area, 535 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 392 | 330 | 353 | 0.660 | 0.76 | 21,700 |
| November | ---------- | ---------- | 317 | .593 | .66 | 18,900 |
| December | ---------- | ---------- | 277 | .518 | .60 | 17,000 |
| January | ---------- | ---------- | 238 | .445 | .51 | 14,600 |
| February | ---------- | ---------- | 254 | .475 | .49 | 14,100 |
| March | 336 | ---------- | 279 | .521 | .60 | 17,200 |
| April | 1,120 | 295 | 694 | 1.30 | 1.45 | 41,300 |
| May | 1,840 | 799 | 1,150 | 2.15 | 2.48 | 70,700 |
| June | 1,060 | 486 | 741 | 1.39 | 1.55 | 44,100 |
| July | 537 | 246 | 350 | .654 | .75 | 21,500 |
| August | 295 | 232 | 255 | .477 | .55 | 15,700 |
| September | 270 | 232 | 245 | .458 | .51 | 14,600 |
| The year | 1,840 | ---------- | 430 | .804 | 10.91 | 311,000 |

### SALMON RIVER BELOW YANKEE FORK, NEAR CLAYTON, IDAHO

LOCATION.—In sec. 20, T. 11 N., R. 15 E., an eighth of a mile below Sunbeam Dam and mouth of Yankee Fork, 4 miles above Robinson Bar, 12 miles below Stanley and mouth of Valley Creek, and 17 miles above Clayton, Custer County.

DRAINAGE AREA.—841 square miles (measured on topographic maps).

RECORDS AVAILABLE.—October 28, 1921, to September 30, 1926.

GAGE.—Vertical staff on left bank; read by Llewellyn Clawson.

DISCHARGE MEASUREMENTS.—Made from cable three-tenths mile below gage.

CHANNEL AND CONTROL.—Bed composed of boulders and gravel. Banks high; one channel at all stages. Control formed by well-defined boulder and rock riffle; practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.50 feet at 7.30 a. m. May 5 (discharge, 2,360 second-feet); minimum stage, −0.07 foot at 12.50 p. m. September 25 (discharge, 274 second-feet).

1922–1926: Maximum stage recorded, 7.6 feet June 7, 15, and 17, 1922 (discharge, 6,760 second-feet); minimum stage, that of September 25, 1926.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—None of importance above station.

REGULATION.—None. Future operation of power plant at Sunbeam Dam may affect flow somewhat during low stages, owing to probable changes in gage opening. Power plant not in operation at present.

ACCURACY.—Stage-discharge relation unchanged after March 8. Two rating curves well defined between 300 and 6,000 second-feet used from October 11 to November 3 and March 9 to September 30, respectively. Gage read usually to hundredths twice daily April 9 to September 30; once daily at other times. Daily discharge ascertained by applying daily gage height or mean daily gage height to rating table, except as indicated in footnote to table of daily discharge. Records for October and June to September good; others fair except those for November 4 to March 8, which are poor.

COOPERATION.—Gage-height records furnished by Love & von Brecht.

*Discharge measurements of Salmon River below Yankee Fork, near Clayton, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 13 | 0.71 | 556 | Apr. 19 | 2.29 | 1,460 | July 8 | 0.88 | 602 |
| Mar. 11 | .20 | 337 | May 12 | 2.04 | 1,190 | Sept. 28 | .05 | 322 |
| Apr. 9 | .84 | 609 | June 2 | 2.22 | 1,350 | | | |

*Daily discharge, in second-feet, of Salmon River below Yankee Fork, near Clayton, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 491 | | | | | 476 | 1,760 | 1,400 | 671 | 384 | 367 |
| 2 | | 511 | | | | | 476 | 1,760 | 1,400 | 671 | 367 | 367 |
| 3 | | 552 | | | | | 476 | 1,760 | 1,340 | 625 | 367 | 367 |
| 4 | | | | | | | 438 | 1,840 | 1,340 | 625 | 367 | 367 |
| 5 | | | | | | 350 | 457 | | 1,340 | 625 | 367 | 367 |
| | 525 | | | | | | | 2,300 | | | | |
| 6 | | | | | 375 | | 457 | | 1,340 | 625 | 384 | 367 |
| 7 | | | | | | | 496 | | 1,340 | 625 | 402 | 350 |
| 8 | | | 425 | 300 | | | 537 | 1,610 | 1,340 | 625 | 402 | 350 |
| 9 | | | | | | 384 | 602 | 1,470 | 1,280 | 580 | 402 | 350 |
| 10 | | | | | | 402 | 671 | 1,400 | 1,280 | 548 | 384 | 350 |
| 11 | 532 | | | | | 367 | | 1,280 | 1,160 | 516 | 384 | 334 |
| 12 | 552 | 475 | | | | 384 | 900 | 1,220 | 1,100 | 516 | 384 | 334 |
| 13 | 552 | | | | | 384 | | 1,160 | 1,040 | 516 | 384 | 334 |
| 14 | 532 | | | | | 420 | 985 | 1,220 | 985 | 516 | 367 | 334 |
| 15 | 532 | | | | | 420 | | 1,280 | 930 | 496 | 367 | 334 |
| 16 | 532 | | | | | 420 | 1,250 | 1,340 | 930 | 476 | 367 | 318 |
| 17 | 532 | | | | | 457 | | 1,340 | 875 | 438 | 367 | 303 |
| 18 | 511 | | | | | 457 | | 1,470 | 821 | 420 | 420 | 303 |
| 19 | 491 | | | | | 457 | 1,340 | 1,680 | 875 | 420 | 402 | 303 |
| 20 | 511 | | | | | 457 | | 1,920 | 875 | 420 | 384 | 303 |
| | | | 400 | | 350 | | | | | | | |
| 21 | 511 | | | | | 457 | 1,300 | 2,010 | 821 | 438 | 384 | 303 |
| 22 | 532 | | | | | 496 | | 1,920 | 769 | 438 | 384 | 303 |
| 23 | 511 | | | 325 | | 496 | | 1,920 | 719 | 420 | 384 | 303 |
| 24 | 511 | | | | | 516 | 1,100 | 1,920 | 719 | 420 | 384 | 288 |
| 25 | 511 | | | | | 496 | 1,220 | 1,760 | 719 | 402 | 384 | 274 |
| | | 450 | | | | | | | | | | |
| 26 | 511 | | | | | 496 | 1,340 | 1,610 | 671 | 402 | 384 | 288 |
| 27 | 532 | | | | | 496 | 1,400 | 1,470 | 671 | 384 | 384 | 288 |
| 28 | 532 | | | | | 438 | 1,470 | 1,470 | 648 | 384 | 367 | 303 |
| 29 | 532 | | 300 | | | 457 | 1,610 | 1,470 | 625 | 384 | 367 | 318 |
| 30 | 532 | | | | ------- | 457 | 1,760 | 1,470 | 648 | 384 | 384 | 318 |
| 31 | 532 | ------- | | | ------- | 457 | ------- | 1,400 | ------- | 384 | 367 | ------- |

NOTE.—Discharge estimated on account of missing gage heights, ice, or unreliable and discredited gage heights Oct. 1–10, Nov. 4 to Mar. 8, Apr. 11–13, 15–18, 20–23, and May 5–7. Discharge interpolated July 10.

*Monthly discharge of Salmon River below Yankee Fork, near Clayton, Idaho, for the year ending September 30, 1926*

[Drainage area, 841 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | ---------- | ---------- | 525 | 0.624 | 0.72 | 32,300 |
| November | ---------- | ---------- | 471 | .560 | .62 | 28,000 |
| December | ---------- | ---------- | 393 | .467 | .54 | 24,200 |
| January | ---------- | ---------- | 313 | .372 | .43 | 19,200 |
| February | ---------- | ---------- | 360 | .428 | .45 | 20,000 |
| March | 516 | ---------- | 422 | .502 | .58 | 25,900 |
| April | 1,760 | 438 | 1,010 | 1.20 | 1.34 | 60,100 |
| May | ---------- | 1,160 | 1,640 | 1.95 | 2.25 | 101,000 |
| June | 1,400 | 625 | 1,000 | 1.19 | 1.33 | 59,500 |
| July | 671 | 384 | 497 | .591 | .68 | 30,600 |
| August | 420 | 367 | 381 | .453 | .52 | 23,400 |
| September | 367 | 274 | 326 | .388 | .43 | 19,400 |
| The year | ---------- | 274 | 612 | .728 | 9.89 | 444,000 |

### SALMON RIVER AT SALMON, IDAHO

LOCATION.—In sec. 6, T. 21 N., R. 22 E., at rear of Rose ranch buildings, 300 feet below island, just above Lemhi River, and a quarter of a mile below highway bridge at Salmon, Lemhi County.

DRAINAGE AREA.—3,600 square miles (Forest Service records).

RECORDS AVAILABLE.—April 25, 1912, to September 30, 1916; July 6, 1919, to September 30, 1926.

GAGE.—Vertical and inclined staff on left bank; read by Parker Wickham and William Kinney.

DISCHARGE MEASUREMENTS.—Made from cable 700 feet below gage, except during ice-affected period, when measurements are sometimes made from highway bridge a quarter of a mile above gage.

CHANNEL AND CONTROL.—Bed composed of rock overlain with sand and gravel. One channel at all stages. Control subject to change.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.4 feet May 5 and 6 (discharge, 3,300 second-feet); minimum stage, 1.83 feet August 4–7 (discharge, 595 second-feet).

1912–1916, 1919–1926: Maximum stage recorded, 9.35 feet June 12, 1921 (discharge, 16,400 second-feet); minimum discharge, 595 second-feet, August 17–19, 25–31, September 1–5, December 18, 1924, and August 4–7, 1926.

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—A small ditch diverts from left bank between bridge and gage, but its total capacity is less than 1 per cent of low-water flow. Numerous diversions, principally on tributaries above.

REGULATION.—None.

ACCURACY.—Stage-discharge relation unchanged during year. Rating curve is well defined throughout range of use. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table except as indicated in footnote to table of daily discharge. Records good.

COOPERATION.—Gage-height record October to December and July to September furnished by United States Forest Service.

*Discharge measurements of Salmon River at Salmon, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 10 | 2.92 | 1,380 | May 31 | 3.70 | 2,330 | Sept. 22 | 2.00 | 676 |
| Mar. 7 | 2.57 | 1,090 | Do | 3.66 | 2,270 | | | |
| Apr. 8 | 2.70 | 1,180 | July 6 | 2.66 | 1,150 | | | |

*Daily discharge, in second-feet, of Salmon River at Salmon, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,320 | 1,320 | 1,230 | 705 | 1,100 | 1,100 | 1,060 | 2,730 | 2,320 | 1,180 | 620 | 675 |
| 2 | 1,320 | 1,320 | 1,280 | 675 | 1,100 | 1,060 | 1,020 | 2,730 | 2,180 | 1,280 | 620 | 675 |
| 3 | 1,320 | 1,370 | 1,320 | 675 | 1,100 | 1,060 | 1,020 | 2,730 | 2,180 | 1,230 | 648 | 675 |
| 4 | 1,320 | 1,320 | 1,280 | 870 | 1,100 | 1,100 | 1,100 | 2,730 | 2,180 | 1,140 | 595 | 675 |
| 5 | 1,370 | 1,230 | 1,280 | 870 | 1,100 | 1,140 | 1,060 | 3,300 | 2,180 | 1,140 | 595 | 675 |
| 6 | 1,470 | 1,180 | 1,280 | 945 | 1,100 | 1,100 | 1,060 | 3,300 | 2,180 | 1,140 | 595 | 675 |
| 7 | 1,420 | 1,180 | 1,230 | 1,140 | 1,100 | 1,060 | 1,100 | 3,010 | 2,180 | 1,140 | 595 | 675 |
| 8 | 1,420 | 1,280 | 1,180 | 982 | 1,140 | 1,100 | 1,180 | 2,730 | 2,180 | 1,230 | 620 | 675 |
| 9 | 1,370 | 1,280 | 1,140 | 964 | 1,100 | 1,140 | 1,230 | 2,450 | 2,180 | 1,230 | 648 | 675 |
| 10 | 1,370 | 1,320 | 1,100 | 945 | 1,100 | 1,140 | 1,320 | 2,180 | 1,920 | 1,140 | 634 | 675 |

*Daily discharge, in second-feet, of Salmon River at Salmon, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 1,420 | 1,320 | 1,180 | 870 | 1,100 | 1,140 | 1,320 | 2,040 | 1,920 | 1,060 | 620 | 675 |
| 12 | 1,420 | 1,320 | 1,280 | 908 | 1,100 | 1,100 | 1,370 | 1,920 | 1,790 | 1,020 | 648 | 675 |
| 13 | 1,420 | 1,320 | 1,230 | 870 | 945 | 1,140 | 1,420 | 1,790 | 1,790 | 1,230 | 648 | 675 |
| 14 | 1,470 | 1,280 | 1,180 | 870 | 982 | 1,180 | 1,470 | 1,790 | 1,680 | 982 | 648 | 648 |
| 15 | 1,420 | 1,280 | 1,100 | 835 | 835 | 1,140 | 1,680 | 1,790 | 1,570 | 982 | 620 | 648 |
| 16 | 1,420 | 1,280 | 1,140 | 882 | 982 | 1,180 | 1,790 | 1,790 | 1,570 | 945 | 620 | 675 |
| 17 | 1,370 | 1,320 | 1,180 | 1,060 | 1,100 | 1,180 | 2,040 | 1,920 | 1,470 | 890 | 620 | 675 |
| 18 | 1,370 | 1,280 | 1,180 | 1,100 | 1,060 | 1,180 | 2,180 | 2,040 | 1,470 | 835 | 628 | 675 |
| 19 | 1,420 | 1,230 | 1,180 | 1,060 | 1,020 | 1,180 | 2,320 | 2,180 | 1,470 | 835 | 675 | 675 |
| 20 | 1,420 | 1,180 | 1,180 | 945 | 1,060 | 1,140 | 2,450 | 2,450 | 1,470 | 800 | 768 | 705 |
| 21 | 1,420 | 1,140 | 1,230 | 908 | 1,060 | 1,140 | 2,320 | 3,010 | 1,420 | 768 | 705 | 675 |
| 22 | 1,470 | 1,140 | 1,180 | 982 | 1,060 | 1,140 | 2,320 | 2,870 | 1,370 | 768 | 705 | 675 |
| 23 | 1,470 | 1,140 | 1,230 | 982 | 1,020 | 1,140 | 2,040 | 2,730 | 1,280 | 768 | 705 | 675 |
| 24 | 1,470 | 1,140 | 1,180 | 964 | 982 | 1,180 | 1,920 | 2,870 | 1,280 | 768 | 648 | 675 |
| 25 | 1,420 | 1,230 | 1,180 | 945 | 1,060 | 1,180 | 2,040 | 2,870 | 1,230 | 735 | 648 | 705 |
| 26 | 1,370 | 1,320 | 1,060 | 908 | 1,060 | 1,140 | 1,790 | 2,590 | 1,180 | 735 | 648 | 705 |
| 27 | 1,420 | 1,280 | 1,060 | 870 | 1,060 | 1,060 | 2,040 | 2,450 | 1,180 | 705 | 648 | 735 |
| 28 | 1,420 | 1,280 | 945 | 982 | 1,020 | 1,060 | 2,180 | 2,320 | 1,140 | 675 | 648 | 735 |
| 29 | 1,420 | 1,230 | 945 | 982 | ------- | 1,060 | 2,450 | 2,320 | 1,140 | 648 | 648 | 800 |
| 30 | 1,470 | 1,230 | 835 | 1,100 | ------- | 982 | 2,590 | 2,320 | 1,140 | 648 | 648 | 800 |
| 31 | 1,420 | ------- | 735 | 1,140 | ------- | 1,060 | ------- | 2,320 | ------- | 648 | 675 | ------ |

NOTE.—Discharge interpolated Jan. 9, 24, May 8, June 4, July 10, 17, 23, Aug. 10, 28, Sept. 2.

*Monthly discharge of Salmon River at Salmon, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 1,470 | 1,320 | 1,410 | 86,700 |
| November | 1,370 | 1,140 | 1,260 | 75,000 |
| December | 1,320 | 735 | 1,150 | 70,700 |
| January | 1,140 | 675 | 937 | 57,600 |
| February | 1,140 | 835 | 1,060 | 58,900 |
| March | 1,180 | 982 | 1,120 | 68,900 |
| April | 2,590 | 1,020 | 1,700 | 101,000 |
| May | 3,300 | 1,790 | 2,460 | 151,000 |
| June | 2,320 | 1,140 | 1,670 | 99,400 |
| July | 1,280 | 648 | 945 | 58,100 |
| August | 768 | 595 | 646 | 39,700 |
| September | 800 | 648 | 689 | 41,000 |
| The year | 3,300 | 595 | 1,250 | 908,000 |

### SALMON RIVER AT WHITEBIRD, IDAHO

LOCATION.—In sec. 22, T. 28 N., R. 1 E., at highway bridge just above Whitebird Creek, 1 mile southwest of Whitebird, Idaho County, and below all large tributaries.

DRAINAGE AREA.—13,600 square miles (measured on Land Office map).

RECORDS AVAILABLE.—August 18, 1910, to September 30, 1917; October 1, 1919, to September 30, 1926.

GAGE.—Chain gage on handrail of highway bridge installed September 14, 1920; read by R. E. Shuck and Vincent Shuck.

DISCHARGE MEASUREMENTS.—Made from cable 900 feet below gage. Discharge measurements include flow of Whitebird Creek, which enters Salmon River between gage and cable.

CHANNEL AND CONTROL.—Channel straight for several hundred feet above and below gage; one channel at all stages. Banks not subject to overflow. Control is section of river channel and large boulder riffle three-eighths of a mile downstream; permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 10.8 feet May 5 (discharge, 30,600 second-feet); minimum stage, 0.94 foot January 1 (discharge, 2,150 second-feet).

1910–1917, 1919–1926: Maximum stage recorded, 21.2 feet June 9, 1921 (discharge, 88,800 second-feet); minimum stage, that of January 1, 1926.

Maximum stage determined from high-water marks, 27.5 feet June, 1894 (discharge, 120,000 second-feet; estimated by extending rating curve).

ICE.—Stage-discharge relation affected by ice during severe winters.

DIVERSIONS.—Amount of water diverted for irrigation above station negligible.

REGULATION.—None.

ACCURACY.—Stage-discharge relation unchanged during year. Rating curve well defined. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table. Record good except those for July to September, which are fair.

*Discharge measurements of Salmon River at Whitebird, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar 19 | 3.78 | 6,870 | May 26 | 8.77 | 21,800 | Aug. 9 | 1.70 | 2,920 |
| May 13 | 7.21 | 16,400 | July 5 | 3.44 | 6,090 | Sept. 7 | 1.87 | 3,300 |
| May 26 | 8.85 | 21,800 | | | | | | |

*Daily discharge, in second-feet, of Salmon River at Whitebird, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4,760 | 4,940 | 4,400 | 2,150 | 3,440 | 3,900 | 5,130 | 28,800 | 16,400 | 6,520 | 2,900 | 3,440 |
| 2 | 4,760 | 4,760 | 4,400 | 2,240 | 3,440 | 4,060 | 5,130 | 27,000 | 15,700 | 5,510 | 2,900 | 3,440 |
| 3 | 4,580 | 4,940 | 4,760 | 2,440 | 3,440 | 4,060 | 4,940 | 27,000 | 15,300 | 5,510 | 2,900 | 3,440 |
| 4 | 4,400 | 4,760 | 4,760 | 2,780 | 3,440 | 4,060 | 4,940 | 27,000 | 15,300 | 7,580 | 2,900 | 3,160 |
| 5 | 4,400 | 4,400 | 4,580 | 3,160 | 3,740 | 4,230 | 5,130 | 30,600 | 14,700 | 5,910 | 2,780 | 3,160 |
| 6 | 4,400 | 4,060 | 4,400 | 3,590 | 3,740 | 4,400 | 5,510 | 28,400 | 14,100 | 5,800 | 2,780 | 3,030 |
| 7 | 4,760 | 4,060 | 4,400 | 3,740 | 3,740 | 4,400 | 5,710 | 24,900 | 14,100 | 5,710 | 2,900 | 3,160 |
| 8 | 4,760 | 3,900 | 4,230 | 3,590 | 4,400 | 4,400 | 5,910 | 21,200 | 13,700 | 5,710 | 3,030 | 3,030 |
| 9 | 4,760 | 3,900 | 4,230 | 3,300 | 4,400 | 4,400 | 6,310 | 19,200 | 12,800 | 6,310 | 3,030 | 3,740 |
| 10 | 4,760 | 3,900 | 3,900 | 3,300 | 4,400 | 4,400 | 6,940 | 17,800 | 11,100 | 6,310 | 3,300 | 3,740 |
| 11 | 4,760 | 4,060 | 4,060 | 3,160 | 4,400 | 4,400 | 7,150 | 16,700 | 11,900 | 5,710 | 3,030 | 3,440 |
| 12 | 4,760 | 4,400 | 4,230 | 3,160 | 4,400 | 4,760 | 8,700 | 16,400 | 10,500 | 5,510 | 3,030 | 3,590 |
| 13 | 4,760 | 4,400 | 4,230 | 2,780 | 4,230 | 5,320 | 7,360 | 16,000 | 7,800 | 5,130 | | 3,440 |
| 14 | 4,760 | 4,400 | 4,230 | 2,900 | 4,060 | 5,910 | 8,020 | 16,000 | 9,440 | 5,320 | | 3,160 |
| 15 | 4,760 | 4,060 | 4,060 | 2,900 | 3,900 | 6,310 | 9,180 | 17,000 | 9,700 | 4,760 | 2,900 | 3,160 |
| 16 | 4,760 | 4,060 | 4,060 | 3,160 | 3,740 | 6,730 | 11,900 | 18,100 | 9,440 | 4,760 | | 2,900 |
| 17 | 4,760 | 4,230 | 3,900 | 3,300 | 3,740 | 6,730 | 14,700 | 19,200 | 8,240 | 4,060 | | 2,900 |
| 18 | 4,760 | 4,230 | 3,900 | 3,590 | 3,740 | 6,940 | 18,500 | 20,800 | 8,240 | 3,900 | | 3,030 |
| 19 | 4,580 | 3,900 | 3,900 | 3,740 | 3,740 | 6,730 | 22,800 | 22,000 | 8,700 | 3,900 | | 3,160 |
| 20 | 4,230 | 3,740 | 4,060 | 3,590 | 3,740 | 6,310 | 23,600 | 22,800 | 10,500 | 3,740 | 3,300 | 3,030 |
| 21 | 4,230 | 3,740 | 4,060 | 3,590 | 3,740 | 6,110 | 22,800 | 23,200 | 10,500 | 3,590 | | 3,160 |
| 22 | 4,230 | 3,590 | 4,060 | 3,590 | 3,740 | 6,110 | 20,800 | 27,500 | 9,700 | 3,740 | | 2,900 |
| 23 | 4,230 | 3,440 | 4,060 | 3,590 | 3,740 | 6,310 | 18,500 | 26,200 | 8,700 | 3,590 | | 2,900 |
| 24 | 4,230 | 3,740 | 4,060 | 3,440 | 3,740 | 6,730 | 18,500 | 25,300 | 8,240 | 3,590 | 3,160 | 2,900 |
| 25 | 4,230 | 3,900 | 4,060 | 3,160 | 3,740 | 6,520 | 19,200 | 22,800 | 7,800 | 3,590 | 2,900 | 2,900 |
| 26 | 4,400 | 4,230 | 4,060 | 3,160 | 3,740 | 6,310 | 20,400 | 22,000 | 7,150 | 3,440 | 2,900 | 3,160 |
| 27 | 4,400 | 4,400 | 3,740 | 2,900 | 3,740 | 6,110 | 20,800 | 19,200 | 8,240 | 3,300 | 2,780 | 3,160 |
| 28 | 4,760 | 4,400 | 3,440 | 2,780 | 3,740 | 5,910 | 22,800 | 19,200 | 8,240 | 3,590 | | 2,900 |
| 29 | 5,130 | 4,230 | 3,160 | 2,780 | ------- | 5,510 | 25,700 | 18,500 | 7,150 | 3,590 | 2,750 | 2,900 |
| 30 | 5,130 | 4,230 | 2,900 | 3,030 | ------- | 5,130 | 27,000 | 18,100 | 6,110 | 3,030 | | 3,030 |
| 31 | 4,940 | ------- | 2,440 | 3,300 | ------- | 5,320 | -------- | 17,000 | -------- | 3,030 | 3,030 | ------ |

NOTE.—Discharge estimated on account of missing or unreliable gage heights May 2, Aug. 13–23, July 6, Aug. 28–30; based on comparison with flow at Kamiah and Salmon, Idaho. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Salmon River at Whitebird, Idaho, for the year ending September 30, 1926*

[Drainage area, 13,600 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 5,130 | 4,230 | 4,620 | 0.340 | 0.39 | 284,000 |
| November | 4,940 | 3,440 | 4,170 | .307 | .34 | 248,000 |
| December | 4,760 | 2,440 | 4,020 | .296 | .34 | 247,000 |
| January | 3,740 | 2,150 | 3,160 | .232 | .27 | 194,000 |
| February | 4,400 | 3,440 | 3,850 | .283 | .29 | 214,000 |
| March | 6,940 | 3,900 | 5,440 | .400 | .46 | 334,000 |
| April | 27,000 | 4,940 | 13,500 | .993 | 1.11 | 803,000 |
| May | 30,600 | 16,000 | 21,800 | 1.60 | 1.84 | 1,340,000 |
| June | 16,400 | 6,110 | 10,600 | .779 | .87 | 631,000 |
| July | 7,580 | 3,030 | 4,700 | .346 | .40 | 289,000 |
| August | | | 2,990 | .220 | .25 | 184,000 |
| September | 3,740 | 2,900 | 3,170 | .233 | .26 | 189,000 |
| The year | 30,600 | 2,150 | 6,850 | .504 | 6.82 | 4,960,000 |

### VALLEY CREEK AT STANLEY, IDAHO

LOCATION.—In sec. 3, T. 10 N., R. 13 E., one-eighth mile above Valley Creek ranger station, one-fourth of a mile above confluence with Salmon River, and three-eighths of a mile below Stanley, Custer County.

DRAINAGE AREA.—176 square miles (measured on topographic maps).

RECORDS AVAILABLE.—December 21, 1910, to October 31, 1913; May 2, 1921, to September 30, 1926.

GAGE.—Vertical staff on left bank, installed May 2, 1921; read by W. L. Rose and R. E. Allen.

DISCHARGE MEASUREMENTS.—Made from log bridge 300 feet upstream or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel. Banks fairly low; left bank may be overflowed at extremely high stages. Control well defined; practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.26 feet on May 5 (discharge, 507 second-feet); minimum discharge considerably less than 55 second-feet occurred during estimated period December 26 to January 15.

1910–1913, 1921–1926: Maximum stage recorded, 4.4 feet May 29, 1921 (discharge, 1,850 second-feet); minimum stage, 0.84 foot September 7, 1924 (discharge, 41 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—A few ranch diversions for irrigation above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed slightly during year. Two well-defined rating curves used; the first applicable October 4 to December 9 and the second applicable March 10 to September 30. Gage read to hundredths twice daily April 10 to June 2, somewhat irregularly at other times. Daily discharge determined by applying daily or mean daily gage height to rating table except as indicated in footnote to table of daily discharge. Records good for October and April to September; others fair except those for estimated periods, which are poor.

*Discharge measurements of Valley Creek at Stanley, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 14 | 1.19 | 98 | Apr. 19 | 1.88 | 292 | June 3 | 1.70 | 239 |
| Mar. 10 | 1.05 | 70 | May 12 | 1.66 | 226 | July 8 | 1.29 | 112 |
| Apr. 9 | 1.59 | 197 | May 13 | 1.66 | 220 | | | |

*Daily discharge, in second-feet, of Valley Creek at Stanley, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 90 | 79 | 80 | 55 | 65 | 70 | 88 | 344 | 242 | 112 | 54 | 70 |
| 2 | | 88 | | | | | 86 | 369 | 234 | 112 | 54 | 66 |
| 3 | | 97 | 83 | | | | 84 | 415 | 234 | 108 | 54 | 62 |
| 4 | 83 | 63 | 79 | | | | 82 | 461 | 234 | 108 | 54 | 62 |
| 5 | 86 | 69 | 76 | | | | 98 | 507 | 234 | 108 | 54 | 62 |
| 6 | 93 | 75 | 75 | | | | 114 | 422 | 234 | 104 | 54 | 62 |
| 7 | 97 | | 74 | | | | 130 | 349 | 234 | 112 | 54 | 59 |
| 8 | 93 | | 73 | | | | 162 | 306 | 227 | 114 | 78 | 59 |
| 9 | 90 | | 69 | | | | 195 | 275 | 214 | 108 | 75 | 59 |
| 10 | 92 | 90 | | | | 70 | 152 | 259 | 200 | 104 | 72 | 59 |
| 11 | 95 | 93 | | | | 74 | 223 | 223 | 186 | 100 | 68 | 56 |
| 12 | 95 | 93 | 70 | | | 78 | 280 | 220 | 172 | 89 | 65 | 56 |
| 13 | 95 | 93 | | | | 82 | 250 | 220 | 172 | 82 | 62 | 56 |
| 14 | 95 | 90 | | | | 84 | 293 | 230 | 165 | 80 | 62 | 54 |
| 15 | 93 | 86 | | | | 87 | 298 | 275 | 158 | 78 | 62 | 54 |
| 16 | 90 | 79 | | | | 89 | 316 | 288 | 151 | 75 | 72 | 54 |
| 17 | 90 | 93 | | | | 92 | 330 | 280 | 144 | 72 | 72 | 55 |
| 18 | 90 | 97 | | | | 91 | 364 | 298 | 134 | 72 | | 57 |
| 19 | 90 | 90 | | | | 90 | 320 | 340 | 130 | 68 | 80 | 58 |
| 20 | 90 | 90 | | | | 89 | 275 | 369 | 128 | 68 | | 60 |
| 21 | 86 | 83 | 65 | | | 97 | 267 | 422 | 125 | 68 | 72 | 61 |
| 22 | 85 | | | | | 105 | 263 | 422 | 125 | 65 | 65 | 62 |
| 23 | 85 | | | 60 | | 113 | 242 | 369 | 121 | 64 | 65 | 56 |
| 24 | 84 | | | | | 121 | 223 | 364 | 121 | 63 | | 62 |
| 25 | 83 | | | | | 114 | 223 | 344 | 121 | 62 | | 62 |
| 26 | 83 | 85 | | | | 106 | 271 | 324 | 116 | 62 | 70 | 62 |
| 27 | 83 | | | | | 99 | 306 | 304 | 116 | 60 | | 59 |
| 28 | 83 | | 55 | | | 91 | 311 | 284 | 116 | 58 | | 65 |
| 29 | 83 | | | | ------- | 90 | 284 | 267 | 116 | 57 | | 64 |
| 30 | 83 | | | | ------- | 90 | 330 | 267 | 116 | 56 | 78 | 64 |
| 31 | 79 | ------- | | | ------- | 89 | ------- | 250 | ------- | 54 | 74 | ------ |

NOTE.—Discharge estimated on account of discredited gage heights Oct. 1–3; on account of missing gage heights Nov. 6–9, 22–30, Dec. 1, 2, 10–31, Jan. 1 to Mar. 9, Aug. 18–20, and 24–29. Interpolated Oct. 10, 12, 13, 22–24, Nov. 2, Dec. 6, 7, Mar. 11, 12, 14–16, 18, 19, 21–23, 25–27, 29, 30, Apr. 1–3, 5, 6, 8, May 3, 4, 25–27, June 9–11, 14–16, 20, July 10, 14, 15, 23, 24, 27–30, Aug. 4, 5, 10, 11, 31, Sept. 1, 2, 17–21.

*Monthly discharge of Valley Creek at Stanley, Idaho, for the year ending September 30, 1926*

[Drainage area, 176 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 97 | 79 | 88.5 | 0.503 | 0.58 | 5,440 |
| November | ---------- | 63 | 84.6 | .481 | .54 | 5,030 |
| December | ---------- | ---------- | 67.4 | .383 | .44 | 4,140 |
| January | ---------- | ---------- | 57.6 | .327 | .38 | 3,540 |
| February | ---------- | ---------- | 65.0 | .369 | .38 | 3,610 |
| March | 121 | ---------- | 86.2 | .490 | .56 | 5,300 |
| April | 364 | 82 | 229 | 1.30 | 1.45 | 13,600 |
| May | 507 | 220 | 325 | 1.85 | 2.13 | 20,000 |
| June | 242 | 116 | 167 | .949 | 1.06 | 9,940 |
| July | 114 | 54 | 82.0 | .466 | .54 | 5,040 |
| August | ---------- | 54 | 67.1 | .381 | .44 | 4,130 |
| September | 70 | 54 | 59.9 | .340 | .38 | 3,560 |
| The year | 507 | ---------- | 115 | .653 | 8.88 | 83,300 |

### YANKEE FORK OF SALMON RIVER NEAR CLAYTON, IDAHO

LOCATION.—In sec. 20, T. 11 N., R. 15 E., at Sunbeam Dam, 350 feet above confluence with Salmon River, 3 miles west of Robinson Bar, 7 miles south of Bonanza, and 18 miles west of Clayton, Custer County.

DRAINAGE AREA.—195 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 3, 1921, to September 30, 1926.

GAGE.—Vertical staff on right bank; read by Llewellyn Clawson.

DISCHARGE MEASUREMENTS.—Made from highway bridge 175 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of rock, boulders, and gravel. One channel at all stages. Control formed by rock and gravel riffle 50 feet below gage; well defined at low and medium stages. Although gradient is steep, control is not well defined at high stages owing possibly to a slight backwater effect from Salmon River when in flood.

EXTREMES OF DISCHARGE.—Maximum discharge, 602 second-feet, occurred May 5; minimum discharge, probably less than 30 second-feet, occurred during frozen period December 25 to January 15.

1921–1926: Maximum stage recorded, 5.24 feet at 8 p. m. June 12, 1921 (discharge, 3,360 second-feet); minimum discharge, 22 second-feet, April 5, 1924 (gage height, 0.10 foot). Lower flow may have occurred during ice-affected periods.

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—None.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined between 30 and 800 second-feet, above which it is extended parallel to former curve. Gage read usually to hundredths twice daily April 9 to September 30; once daily at other times. Daily discharge ascertained by applying daily or mean daily gage height to rating table except as indicated in footnote to table of daily discharge. Records fair except for estimated periods, for which they are poor.

COOPERATION.—Gage-height record furnished by Love & vonBrecht.

*Discharge measurements of Yankee Fork of Salmon River near Clayton, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 13 | 1.06 | 69 | Apr. 19 | 2.48 | 328 | June 2 | 2.30 | 279 |
| Mar. 9 | 1.01 | 46.9 | May 12 | 2.16 | 250 | Sept. 25 | .65 | 34.5 |
| Apr. 9 | 1.21 | 80 | | | | | | |

*Daily discharge, in second-feet, of Yankee Fork of Salmon River near Clayton, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 53 | | | | | | 476 | 292 | 98 | 65 | 54 |
| 2 | | 67 | | | | | | 476 | 278 | 92 | 52 | 54 |
| 3 | | 77 | | | | | | 438 | 265 | 87 | 52 | 54 |
| 4 | | | | | | | | 476 | 252 | 87 | 52 | 54 |
| 5 | | 50 | | | | 40 | 60 | 602 | 265 | 87 | 52 | 54 |
| 6 | 65 | | | | 45 | | | 336 | 240 | 87 | 51 | 54 |
| 7 | | 49 | | | | | | 336 | 228 | 92 | 51 | 54 |
| 8 | | | 45 | 30 | | | | 368 | 228 | 104 | 60 | 54 |
| 9 | | | | | | 47 | 80 | 306 | 217 | 82 | 52 | 54 |
| 10 | | | | | | | | 278 | 206 | 82 | 52 | 54 |
| | | 60 | | | | | 90 | | | | | |
| 11 | 72 | | | | | | | 252 | 186 | 82 | 52 | 54 |
| 12 | 72 | | | | | | 110 | 252 | 177 | 82 | 51 | 54 |
| 13 | 72 | | | | | | 130 | 228 | 168 | 82 | 51 | 54 |
| 14 | 72 | 65 | | | | | 196 | 228 | 152 | 77 | 51 | 54 |
| 15 | 67 | 58 | | | | | 206 | 265 | 152 | 72 | 52 | 54 |
| 16 | 72 | 77 | | | | | 278 | 321 | 144 | 67 | 52 | 54 |
| 17 | 67 | 77 | | | | | 306 | 321 | 130 | 67 | 51 | 54 |
| 18 | 64 | 67 | | | | | 292 | 352 | 137 | 67 | 72 | 54 |
| 19 | 65 | 55 | | | | | 336 | 385 | 144 | 66 | 64 | 54 |
| 20 | 65 | | 40 | | 40 | 65 | 336 | 368 | 137 | 65 | 56 | 54 |
| 21 | 67 | | | | | | 321 | 516 | 130 | 61 | 52 | 54 |
| 22 | 64 | | | | | | 278 | 496 | 116 | 61 | 52 | 54 |
| 23 | 67 | 50 | | 35 | | | 252 | 476 | 110 | 60 | 52 | 53 |
| 24 | 58 | | | | | | 228 | 476 | 110 | 60 | 53 | 42 |
| 25 | 58 | | | | | | 265 | 402 | 104 | 60 | 54 | 37 |
| 26 | 58 | 49 | | | | | 265 | 368 | 104 | 60 | 54 | 38 |
| 27 | 65 | | | | | | 336 | 336 | 98 | 60 | 54 | 45 |
| 28 | 72 | 50 | 30 | | | | 368 | 336 | 98 | 60 | 54 | 46 |
| 29 | 67 | | | | ------- | | 438 | 321 | 92 | 59 | 54 | 52 |
| 30 | 67 | | | | ------- | | 476 | 336 | 92 | 58 | 57 | 54 |
| 31 | 67 | ------- | | | ------- | | ------- | 306 | ------- | 58 | 54 | ------- |

NOTE.—Discharge estimated on account of missing gage heights, ice, or unreliable and discredited gage heights Oct. 1–10, Nov. 4–6, 8–13, 19–25, 27–30, Dec. 1 to Mar. 8, Mar. 10–31, Apr. 1–8, 10, 11, based on weather records and by comparison with flow at near-by stations; interpolated July 10. Braced figures show mean discharge for periods indicated. Result of actual discharge measurement used Mar. 9 and Apr. 9.

*Monthly discharge of Yankee Fork of Salmon River near Clayton, Idaho, for the year ending September 30, 1926*

[Drainage area, 195 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | ---------- | ---------- | 66.1 | 0.339 | 0.39 | 4,060 |
| November | ---------- | ---------- | 57.0 | .292 | .33 | 3,390 |
| December | ---------- | ---------- | 40.5 | .208 | .24 | 2,490 |
| January | ---------- | ---------- | 32.6 | .167 | .19 | 2,000 |
| February | ---------- | ---------- | 42.0 | .215 | .22 | 2,330 |
| March | ---------- | ---------- | 58.0 | .297 | .34 | 3,570 |
| April | 476 | ---------- | 205 | 1.05 | 1.17 | 12,200 |
| May | 602 | 228 | 369 | 1.89 | 2.18 | 22,700 |
| June | 292 | 92 | 168 | .862 | .96 | 10,000 |
| July | 104 | 58 | 73.6 | .377 | .43 | 4,530 |
| August | 72 | 51 | 54.2 | .278 | .32 | 3,330 |
| September | 54 | 37 | 51.8 | .266 | .30 | 3,080 |
| The year | 602 | ---------- | 102 | .523 | 7.07 | 73,700 |

### BIG BOULDER CREEK NEAR CLAYTON, IDAHO

LOCATION.—In NE. ¼ sec. 15, T. 9 N., R. 17 E., below power plant of the Livingston Mines Corporation, half a mile above junction with East Fork of Salmon River, and 11 miles southwest of Clayton, Custer County.

DRAINAGE AREA.—27 square miles (measured on topographic map and land office map).

RECORDS AVAILABLE.—May 15 to September 30, 1926.

GAGE.—Vertical staff on left bank; read by power-plant operators.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders. One channel at all stages. Control is well-defined riffle immediately below gage; not permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period of record, 1.32 feet at 7 a. m. May 20 (discharge, 47 second-feet); minimum measured discharge, 5.9 second-feet September 23. Maximum flow of probably more than 100 second-feet occurred for short time on August 24 from break in surge tank.

DIVERSIONS.—Livingston Mines Corporation diverts water for power purposes about three-quarters of a mile upstream, but water is returned to stream 30 feet above gage.

REGULATION.—Flow practically unaffected by power diversion above.

ACCURACY.—Stage-discharge relation changed on August 24 by gravel deposit on control caused by break in power plant surge tank on hillside above gage. Two rating curves used; the first applicable prior to August 24 is fairly well defined between 15 and 150 second-feet, above and below which it is extended, and the second applicable after September 22 is fairly well defined. Gage read to hundredths twice daily except as noted in footnote to table of daily discharge. Daily discharge ascertained by applying mean daily gage height to rating table. Records fair except those for estimated period, which are poor.

*Discharge measurements of Big Boulder Creek near Clayton, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| May 15 | 0.98 | 24.3 | July 7 | 0.97 | 29.9 |
| June 1 | 1.07 | 31.8 | Sept. 23 | .94 | 5.9 |

*Daily discharge, in second-feet, of Big Boulder Creek near Clayton, Idaho, for the year ending September 30, 1926*

| Day | May | June | July | Aug. | Sept. | Day | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ------ | 35 | 35 | 22 | | 16 | 26 | 19 | 26 | 19 | |
| 2 | ------ | 37 | 28 | 22 | | 17 | 28 | 18 | 26 | 19 | |
| 3 | ------ | 40 | 26 | 23 | | 18 | 28 | 18 | 26 | 24 | |
| 4 | ------ | 42 | 23 | 22 | | 19 | 32 | 20 | 26 | 24 | |
| 5 | ------ | 46 | 22 | 22 | | 20 | 57 | 20 | 26 | 23 | 12 |
| 6 | ------ | 47 | 19 | 20 | | 21 | 30 | 16 | 25 | 22 | |
| 7 | ------ | 47 | 23 | 20 | | 22 | 46 | 16 | 24 | 21 | |
| 8 | ------ | 46 | 24 | 20 | 12 | 23 | 49 | 17 | 24 | 21 | 7 |
| 9 | ------ | 37 | 22 | 23 | | 24 | 40 | 21 | 22 | | 7 |
| 10 | ------ | 35 | 20 | 22 | | 25 | 35 | 22 | 22 | | 8 |
| 11 | ------ | 32 | 18 | 22 | | 26 | 33 | 24 | 22 | | 8 |
| 12 | ------ | 28 | 17 | 20 | | 27 | 33 | 26 | 21 | 20 | 9 |
| 13 | ------ | 26 | 16 | 19 | | 28 | 37 | 26 | 21 | | 8 |
| 14 | ------ | 25 | 25 | 19 | | 29 | 40 | 26 | 22 | | 7 |
| 15 | 24 | 22 | 28 | 19 | | 30 | 40 | 25 | 22 | | 8 |
| | | | | | | 31 | 35 | ------ | 21 | | ------ |

NOTE.—Gage not read Aug. 24 to Sept. 22; discharge estimated, based largely on statement of power-plant operator. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Big Boulder Creek near Clayton, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| May 15–31 | 57 | 24 | 36.1 | 1,220 |
| June | 47 | 16 | 28.6 | 1,700 |
| July | 35 | 16 | 23.3 | 1,430 |
| August | | | 20.9 | 1,290 |
| September | | | 10.9 | 649 |
| The period | | | | 6,290 |

**BEAR VALLEY CREEK NEAR CAPE HORN, IDAHO**

LOCATION.—About sec. 31, T. 13 N., R. 10 E. (unsurveyed), Valley County, 250 feet below mouth of Fir Creek, 5 miles above confluence with Middle Fork of Salmon River, 7 miles northwest of Cape Horn, Custer County, and 25 miles northwest of Stanley.

DRAINAGE AREA.—180 square miles (measured on Forest Service maps).

RECORDS AVAILABLE.—September 6, 1921, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by Geological Survey engineers.

DISCHARGE MEASUREMENTS.—Made from cable 50 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders. Banks high. One channel at all stages. Control not well defined; subject to slight moss growth.

EXTREMES OF DISCHARGE.—Maximum stage during year, determined from high-water marks on banks, 3.7 feet May 5 (discharge, about 1,470 second-feet); minimum stage recorded during year, 1.03 feet August 1, 2, 5, and 6 (discharge, 44 second-feet).

1921–1926: Maximum stage recorded, determined on that day from water-marks on gage house, 5.0 feet shortly prior to June 12, 1925 (discharge, from extension of rating curve, about 2,800 second-feet); minimum stage recorded, August 1, 2, 5, and 6, 1926. Lower discharge probably occurred during period of no record.

ICE.—Stage-discharge relation affected by ice; records discontinued during winter.

DIVERSIONS.—None.

REGULATION.—None.

ACCURACY.—Stage-discharge relation fairly permanent. Rating curve, well defined between 60 and 900 second-feet, and curve parallel thereto were used. Operation of water-stage recorder satisfactory except during August and September. Daily discharge ascertained by applying to rating table mean daily gage height determined from inspection of recorder graph except as indicated in footnote to table of daily discharge. Records good except those for August and September, which are poor.

*Discharge measurements of Bear Valley Creek near Cape Horn, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Oct. 12 | 1.51 | 140 | July 10 | 1.44 | [a] 130 |
| May 14 | 2.32 | 487 | Sept. 30 | 1.26 | 79 |
| June 4 | 1.90 | 280 | | | |

[a] Measured flow in Bear Valley Creek above Fir Creek plus Fir Creek at mouth.

*Daily discharge, in second-feet, of Bear Valley Creek near Cape Horn, Idaho, for the year ending September 30, 1926*

| Day | Oct. | May | June | July | Aug. | Sept. | Day | Oct. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | ------ | 324 | 125 | 44 | | 17 | 118 | 527 | 189 | 84 | | |
| 2 | | ------ | 306 | 120 | 44 | | 18 | 113 | 533 | 180 | 82 | | |
| 3 | 105 | ------ | 289 | 115 | 48 | | 19 | 110 | 527 | 212 | 78 | 80 | 65 |
| 4 | | ------ | 276 | 115 | 46 | 75 | 20 | 108 | 723 | 256 | 76 | | |
| 5 | | ------ | 264 | 118 | 44 | | | | | | | | |
| | | | | | | | 21 | 108 | 764 | 209 | 72 | | |
| 6 | 110 | ------ | 253 | 118 | 44 | | 22 | 108 | 591 | 183 | 70 | | |
| 7 | 125 | ------ | 245 | 131 | | | 23 | 108 | 550 | 167 | 69 | | |
| 8 | 125 | ------ | 234 | 196 | 75 | | 24 | 101 | 527 | 158 | 67 | | 75 |
| 9 | | ------ | 226 | 141 | | | 25 | 104 | 488 | 150 | 64 | 75 | |
| 10 | 120 | ------ | 220 | 123 | | | | | | | | | |
| | | | | | | | 26 | ------ | 439 | 144 | 60 | | |
| 11 | | ------ | 209 | 113 | 69 | 65 | 27 | ------ | 407 | 138 | 57 | | |
| 12 | 144 | ------ | 199 | 106 | 67 | | 28 | ------ | 386 | 133 | 54 | | |
| 13 | 150 | 428 | 192 | 104 | 67 | | 29 | ------ | 371 | 128 | 52 | | |
| 14 | 133 | 460 | 186 | 99 | 69 | | 30 | ------ | 357 | 125 | 50 | 85 | 84 |
| 15 | 123 | 482 | 192 | 92 | 80 | | 31 | ------ | 342 | ------ | 48 | | ------ |
| 16 | 118 | 488 | 206 | 88 | | | | | | | | | |

NOTE.—Water-stage recorder not operating Oct. 1–5, 9–11, 22, Aug. 7–10, 15–31, and Sept. 1–29; discharge estimated by comparison with flow of Deadwood River and Valley Creek. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Bear Valley Creek near Cape Horn, Idaho, for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October 1–25 | 150 | ---------- | 116 | 5,750 |
| May 13–31 | 764 | 342 | 494 | 18,600 |
| June | 324 | 125 | 206 | 12,300 |
| July | 196 | 48 | 93.1 | 5,720 |
| August | ---------- | 44 | 70.2 | 4,320 |
| September | ---------- | ---------- | 70.6 | 4,200 |

### GRANDE RONDE RIVER AT LA GRANDE, OREG.

LOCATION.—In SW. ¼ sec. 31, T. 2 S., R. 38 E., one-eighth mile below State highway bridge, and one-fourth mile above county bridge, half a mile northwest of La Grande, Union County.

RECORDS AVAILABLE.—February 16, 1918, to September 2, 1920; November 22, 1920, to June 30, 1923; and October 1, 1925, to September 30, 1926.

GAGE.—Inclined and vertical staff on left bank; read by S. U. Evans.

DISCHARGE MEASUREMENTS.—Made from county bridge below gage or by wading.

CHANNEL AND CONTROL.—Control is a well-defined coarse gravel riffle, practically permanent, narrow at low stages, widening to full width of river at medium stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.70 feet at 1 p. m. March 14 and 16 (discharge, 1,830 second-feet); minimum stage, 0.34 foot at 3 p. m. August 16 (discharge, 22 second-feet).

1918–1923, 1926: Maximum discharge recorded, 4,750 second-feet, April 22, 1922; minimum discharge, 4 second-feet September 14 and 16–20, 1922.

ICE.—Stage-discharge relation not affected by ice.

DIVERSION.—None.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Staff gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table. Records good.

COOPERATION.—Records furnished by State engineer of Oregon.

*Discharge measurements of Grande Ronde River at La Grande, Oreg., during the years ending September 30, 1925 and 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| 1925 | *Feet* | *Sec.-ft.* | 1926 | *Feet* | *Sec.-ft.* |
| July 30 | 0.74 | 38.4 | May 1 | 2.28 | 669 |
| | | | June 20 | 1.15 | 114 |
| 1926 | | | Sept. 23 | .65 | 32.4 |
| Feb. 26 | 1.65 | 254 | | | |
| Mar. 19 | 2.79 | 908 | | | |

*Daily discharge, in second-feet, of Grande Ronde River at La Grande, Oreg., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 35 | 46 | 38 | 32 | 44 | 640 | 760 | 640 | 110 | 28 | 23 | 38 |
| 2 | 37 | 38 | 40 | 34 | 44 | 700 | 670 | 580 | 105 | 29 | 22 | 33 |
| 3 | 39 | 37 | 44 | 38 | 44 | 760 | 700 | 490 | 90 | 34 | 23 | 33 |
| 4 | 37 | 36 | 38 | 38 | 56 | 850 | 820 | 490 | 85 | 33 | 23 | 30 |
| 5 | 37 | 36 | 45 | 40 | 205 | 700 | 950 | 580 | 81 | 32 | 23 | 29 |
| 6 | 37 | 35 | 49 | 46 | 405 | 550 | 1,020 | 460 | 73 | 25 | 22 | 28 |
| 7 | 37 | 36 | 39 | 47 | 610 | 580 | 950 | 430 | 69 | 31 | 22 | 32 |
| 8 | 37 | 35 | 39 | 46 | 670 | 580 | 1,020 | 405 | 59 | 36 | 22 | 32 |
| 9 | 37 | 38 | 30 | 45 | 640 | 610 | 1,190 | 375 | 50 | 35 | 22 | 32 |
| 10 | 37 | 39 | 38 | 39 | 790 | 950 | 1,190 | 322 | 54 | 32 | 22 | 30 |
| 11 | 37 | 40 | 53 | 38 | 670 | 550 | 1,280 | 245 | 50 | 29 | 22 | 30 |
| 12 | 37 | 40 | 50 | 32 | 460 | 730 | 1,190 | 265 | 50 | 29 | 22 | 29 |
| 13 | 37 | 40 | 46 | 30 | 322 | 1,710 | 1,190 | 270 | 50 | 32 | 22 | 29 |
| 14 | 37 | 40 | 40 | 30 | 245 | 1,830 | 1,600 | 285 | 48 | 30 | 22 | 26 |
| 15 | 37 | 38 | 28 | 29 | 306 | 1,480 | 1,190 | 255 | 53 | 29 | 22 | 28 |
| 16 | 37 | 38 | 38 | 29 | 229 | 1,830 | 1,280 | 245 | 54 | 28 | 22 | 30 |
| 17 | 39 | 39 | 38 | 30 | 237 | 1,380 | 1,380 | 270 | 50 | 27 | 22 | 31 |
| 18 | 37 | 39 | 45 | 30 | 213 | 1,100 | 1,280 | 270 | 50 | 26 | 28 | 31 |
| 19 | 37 | 39 | 39 | 30 | 213 | 950 | 1,280 | 237 | 53 | 25 | 32 | 31 |
| 20 | 38 | 38 | 39 | 31 | 260 | 985 | 1,100 | 245 | 95 | 25 | 38 | 30 |
| 21 | 38 | 37 | 38 | 32 | 237 | 850 | 985 | 295 | 75 | 25 | 38 | 30 |
| 22 | 37 | 38 | 39 | 32 | 229 | 820 | 880 | 225 | 62 | 24 | 32 | 30 |
| 23 | 35 | 35 | 95 | 35 | 221 | 915 | 760 | 205 | 50 | 24 | 28 | 32 |
| 24 | 35 | 29 | 115 | 35 | 245 | 820 | 700 | 205 | 46 | 24 | 26 | 33 |
| 25 | 35 | 34 | 85 | 37 | 760 | 760 | 640 | 180 | 44 | 23 | 25 | 33 |
| 26 | 35 | 45 | 54 | 37 | 520 | 670 | 640 | 163 | 40 | 24 | 25 | 32 |
| 27 | 37 | 45 | 53 | 35 | 550 | 640 | 640 | 163 | 38 | 24 | 25 | 31 |
| 28 | 38 | 40 | 62 | 40 | 640 | 580 | 640 | 163 | 35 | 24 | 25 | 32 |
| 29 | 38 | 39 | 56 | 42 | ------ | 520 | 640 | 135 | 34 | 24 | 24 | 31 |
| 30 | 42 | 39 | 43 | 42 | ------ | 550 | 760 | 135 | 28 | 23 | 31 | 31 |
| 31 | 43 | ------ | 40 | 43 | ------ | 730 | ------ | 98 | ------ | 23 | 40 | ------ |

*Monthly discharge of Grande Ronde River at La Grande, Oreg., during the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 43 | 35 | 37.3 | 2,290 |
| November | 46 | 29 | 38.3 | 2,280 |
| December | 115 | 30 | 48.3 | 2,970 |
| January | 47 | 29 | 36.3 | 2,230 |
| February | 790 | 44 | 359 | 19,900 |
| March | 1,830 | 520 | 881 | 54,200 |
| April | 1,600 | 640 | 978 | 58,200 |
| May | 640 | 98 | 301 | 18,500 |
| June | 110 | 28 | 59.4 | 3,530 |
| July | 36 | 23 | 27.6 | 1,700 |
| August | 40 | 22 | 25.6 | 1,570 |
| September | 38 | 28 | 31.0 | 1,840 |
| The year | 1,830 | 22 | 234 | 169,000 |

### CATHERINE CREEK NEAR UNION, OREG.

LOCATION.—In SW. ¼ sec. 34, T. 4 S., R. 40 E. at Miles ranch, 5 miles southeast of Union, Union County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—February 21, 1918, to August 31, 1919, and October 1, 1925, to September 30, 1926. May 15, 1906, to May 18, 1907, at a station in sec. 3, T. 5 S., R. 40 E.; August 1, 1911, to December 31, 1912, and March 20 to September 14, 1915, at a station in SW. ¼ sec. 1, T. 5 S., R. 40 E.; practically same discharge at all three stations.

GAGE.—Vertical staff on right bank; read by E. H. Miles.

DISCHARGE MEASUREMENTS.—Made from bridge at gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders; subject to shift during high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.60 feet April 19 (discharge, 675 second-feet); minimum stage, 0.25 foot November 7 (discharge, 8 second-feet).

1906–7, 1911–12, 1915, 1918–19, 1926: Maximum discharge recorded, 1,240 second-feet May 21, 1912; minimum discharge, that of November 7, 1925.

ICE.—Stage-discharge relation not seriously affected by ice.

DIVERSIONS.—Station above practically all irrigation.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not seriously affected by ice; changed April 19. Rating curves used prior and subsequent to change are fairly well defined below 400 second-feet by 10 discharge measurements made in 1926 and 1927. Staff gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table. Records fair.

COOPERATION.—Records furnished by State engineer of Oregon.

*Discharge measurements of Catherine Creek near Union, Oreg., during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| July 30 | 1.02 | 43 | Feb. 20 | 0.92 | 40 | June 20 | 1.32 | 68 |
| Sept. 3 | .83 | 30 | Apr. 15 | 2.60 | 340 | | | |
| Sept. 16 | .80 | 29 | May 1 | 2.62 | 331 | | | |

*Daily discharge, in second-feet, of Catherine Creek near Union, Oreg., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 30 | 30 | 18 | 27 | 57 | 107 | 396 | 105 | 42 | 15 | 28 |
| 2 | 30 | 30 | 50 | 27 | 25 | 65 | 100 | 332 | 105 | 37 | 15 | 24 |
| 3 | 28 | 28 | 36 | 36 | 27 | 76 | 93 | 303 | 102 | 32 | 15 | 24 |
| 4 | 28 | 25 | 35 | 30 | 32 | 85 | 89 | 275 | 99 | 42 | 15 | 21 |
| 5 | 28 | 21 | 36 | 30 | 36 | 40 | 89 | 275 | 99 | 32 | 15 | 20 |
| 6 | 28 | 15 | 39 | 28 | 42 | 80 | 93 | 248 | 96 | 32 | 15 | 20 |
| 7 | 30 | 8 | 32 | 29 | 54 | 69 | 107 | 224 | 93 | 30 | 15 | 20 |
| 8 | 30 | 25 | 31 | 29 | 54 | 69 | 130 | 157 | 90 | 29 | 15 | 20 |
| 9 | 30 | 28 | 30 | 36 | 54 | 69 | 168 | 157 | 90 | 29 | 15 | 20 |
| 10 | 30 | 28 | 32 | 30 | 57 | 63 | 200 | 157 | 87 | 28 | 15 | 20 |

*Daily discharge, in second-feet, of Catherine Creek near Union, Oreg., for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 30 | 30 | 32 | 30 | 57 | 69 | 224 | 157 | 85 | 28 | 15 | 20 |
| 12 | 30 | 30 | 30 | 30 | 54 | 73 | 248 | 147 | 82 | 28 | 15 | 20 |
| 13 | 30 | 30 | 27 | 29 | 47 | 122 | 275 | 157 | 80 | 28 | 15 | 20 |
| 14 | 30 | 30 | 17 | 29 | 46 | 168 | 303 | 178 | 77 | 28 | 14 | 20 |
| 15 | 30 | 30 | 28 | 28 | 43 | 178 | 364 | 157 | 77 | 27 | 14 | 20 |
| 16 | 30 | 30 | 25 | 28 | 43 | 200 | 460 | 157 | 75 | 27 | 15 | 20 |
| 17 | 30 | 30 | 28 | 28 | 40 | 178 | 563 | 157 | 72 | 25 | 15 | 20 |
| 18 | 30 | 30 | 30 | 28 | 36 | 158 | 635 | 168 | 67 | 22 | 39 | 21 |
| 19 | 30 | 30 | 30 | 27 | 36 | 148 | 675 | 178 | 65 | 21 | 35 | 20 |
| 20 | 30 | 30 | 28 | 25 | 37 | 130 | 528 | 189 | 77 | 21 | 28 | 20 |
| 21 | 28 | 30 | 28 | 25 | 37 | 122 | 428 | 200 | 61 | 21 | 21 | 20 |
| 22 | 28 | 30 | 36 | 25 | 37 | 114 | 364 | 189 | 58 | 21 | 20 | 20 |
| 23 | 25 | 25 | 47 | 24 | 39 | 122 | 303 | 178 | 52 | 20 | 20 | 20 |
| 24 | 25 | 25 | 47 | 25 | 40 | 139 | 248 | 168 | 44 | 20 | 19 | 21 |
| 25 | 28 | 25 | 39 | 25 | 37 | 139 | 262 | 137 | 42 | 20 | 18 | 20 |
| 26 | 30 | 28 | 34 | 25 | 39 | 122 | 289 | 128 | 39 | 20 | 18 | 20 |
| 27 | 33 | 28 | 23 | 25 | 40 | 122 | 303 | 120 | 39 | 19 | 16 | 20 |
| 28 | 36 | 27 | 24 | 25 | 59 | 114 | 332 | 120 | 37 | 19 | 16 | 20 |
| 29 | 43 | 27 | 25 | 28 | ------ | 93 | 364 | 120 | 34 | 17 | 16 | 20 |
| 30 | 36 | 29 | 17 | 28 | ------ | 93 | 428 | 112 | 31 | 17 | 35 | 20 |
| 31 | 30 | ------ | 18 | 25 | ------ | 114 | ------ | 112 | ------ | 16 | 38 | ------ |

NOTE.—Stage-discharge relation affected by ice Jan. 2, 12–15, 25–27, and Feb. 4; discharge estimated from observer's notes and weather records.

*Monthly discharge of Catherine Creek near Union, Oreg., during the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 43 | 25 | 30.1 | 1,850 |
| November | 30 | 8 | 27.1 | 1,610 |
| December | 50 | 17 | 31.1 | 1,910 |
| January | 36 | 18 | 27.6 | 1,700 |
| February | 59 | 25 | 42.0 | 2,330 |
| March | 200 | 40 | 109 | 6,700 |
| April | 675 | 89 | 292 | 17,400 |
| May | 396 | 112 | 186 | 11,400 |
| June | 105 | 31 | 72 | 4,280 |
| July | 42 | 16 | 25.7 | 1,580 |
| August | 39 | 14 | 19.1 | 1,170 |
| September | 28 | 20 | 20.6 | 1,230 |
| The year | 675 | 8 | 73.5 | 53,200 |

### WALLOWA RIVER ABOVE WALLOWA LAKE, NEAR JOSEPH, OREG.

LOCATION.—In NE. ¼ sec. 29, T. 3 S., R. 45 E., 100 feet below junction of East and West Forks of Wallowa River, 1 mile above Wallowa Lake and 6 miles south of Joseph, Wallowa County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—February 22, 1924, to September 30, 1926; incomplete.

GAGE.—Stevens water-stage recorder on right bank; inspected by L. A. Stanley.

DISCHARGE MEASUREMENTS.—Made from footlog 15 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders; subject to shifts. Current swift and turbulent. Channel straight for short distance above and below; banks free of vegetation. Two or more channels on left bank during high water.

EXTREMES OF DISCHARGE.—1924: Maximum stage during year, from water-stage recorder, 2.14 feet at 7 p. m. May 13 (discharge, 525 second-feet); minimum stage, 0.54 foot at 1 p. m. September 30 (discharge, 33 second-feet).

1925: Maximum stage during year, from water-stage recorder, 2.52 feet at 8 p. m. June 29 (discharge, 640 second-feet); minimum stage, 0.54 foot at 3 a. m. October 26, 1924 (discharge, 33 second-feet).

1926: Maximum stage during year, from water-stage recorder, 2.44 feet at 4 p. m. July 6 (discharge, 560 second-feet); minimum stage, 0.67 foot at 11 p. m. March 11 (discharge, 30 second-feet).

ICE.—Stage-discharge relation seriously affected by ice; record discontinued during winter.

DIVERSIONS.—Water diverted from East Fork to Wallowa Falls power plant of Inland Power & Light Co., returned above station.

REGULATION.—Little or no regulation.

ACCURACY.—Stage-discharge relation changing May 21 to September 15, 1925. Rating curves used prior and subsequent to change fairly well defined below 450 second-feet. Operation of water-stage recorder satisfactory except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph. Shifting-control method, based on discharge measurements of May 25 and July 8, used May 21 to September 15, 1925. Records fair.

COOPERATION.—Records furnished by State engineer of Oregon.

*Discharge measurements of Wallowa River above Wallowa Lake, near Joseph, Oreg., during the years ending September 30, 1922–1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| 1921 | *Feet* | *Sec.-ft.* | 1924 | *Feet* | *Sec.-ft.* | 1925 | *Feet* | *Sec.-ft.* |
| Nov. 2 | 0.48 | 43 | Mar. 17 | 0.73 | 50 | Sept. 18 | 0.89 | 47 |
| | | | May 2 | 1.64 | 299 | Nov. 6 | .79 | 35.7 |
| 1922 | | | July 27 | .90 | 65 | | | |
| May 3 | .70 | 60 | | | | 1926 | | |
| June 6 | 2.43 | 745 | 1925 | | | Mar. 22 | .79 | 38.2 |
| | | | Apr. 14 | 1.25 | 170 | Apr. 17 | 1.54 | 187 |
| 1923 | | | May 1 | 1.21 | 158 | May 22 | 1.73 | 243 |
| June 6 | 1.60 | 339 | May 25 | 1.99 | 421 | Aug. 9 | .88 | 48.4 |
| Sept. 13 | .86 | 58 | July 8 | 1.86 | 335 | Sept. 22 | .74 | 36.4 |

*Daily discharge, in second-feet, of Wallowa River above Wallowa Lake, near Joseph, Oreg., for the years ending September 30, 1924–1926*

| Day | Oct. | Nov. | Dec. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1924 | | | | | | | | | | | |
| 1 | | | | | 48 | 40 | 257 | 276 | 198 | 63 | 46 |
| 2 | | | | | 48 | 40 | 295 | 324 | 201 | 60 | 44 |
| 3 | | | | | 48 | 40 | 328 | 345 | 201 | 60 | 44 |
| 4 | | | | | 48 | 40 | 295 | 340 | 201 | 61 | 43 |
| 5 | | | | | 49 | 40 | 246 | 312 | 174 | 60 | 43 |
| 6 | | | | | 48 | 44 | 218 | 283 | 164 | 59 | 45 |
| 7 | | | | | 48 | 50 | 215 | 243 | 142 | 57 | 45 |
| 8 | | | | | 51 | 53 | 236 | 222 | 133 | 56 | 48 |
| 9 | | | | | 50 | 54 | 287 | 198 | 127 | 56 | 48 |
| 10 | | | | | 48 | 57 | 362 | 187 | 124 | 54 | 47 |
| 11 | | | | | 48 | 60 | 410 | 177 | 118 | 53 | 44 |
| 12 | | | | | 49 | 66 | 438 | 177 | 112 | 53 | 43 |
| 13 | | | | | 48 | 78 | 469 | 190 | 101 | 53 | 43 |
| 14 | | | | | 48 | 76 | 482 | 232 | 98 | 54 | 42 |
| 15 | | | | | 48 | 72 | 469 | 250 | 98 | 53 | 40 |

*Daily discharge, in second-feet, of Wallowa River above Wallowa Lake, near Joseph, Oreg., for the years ending September 30, 1924–1926*—Continued

| Day | Oct. | Nov. | Dec. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1924 | | | | | | | | | | | |
| 16 | | | | | 50 | 74 | 464 | 261 | 90 | 53 | 40 |
| 17 | | | | | 51 | 72 | 451 | 257 | 83 | 52 | 41 |
| 18 | | | | | 48 | 72 | 433 | 226 | 83 | 52 | 41 |
| 19 | | | | | 42 | 67 | 424 | 187 | 83 | 59 | 43 |
| 20 | | | | | 42 | 69 | 415 | 177 | 85 | 54 | 43 |
| 21 | | | | | 42 | 83 | 415 | 190 | 74 | 51 | 42 |
| 22 | | | | 46 | 43 | 101 | 406 | 201 | | 50 | |
| 23 | | | | 46 | 46 | 112 | 402 | 204 | | 48 | |
| 24 | | | | 46 | 41 | 118 | 410 | 204 | 70 | 48 | |
| 25 | | | | 46 | 42 | 118 | 424 | 198 | | 48 | 39 |
| 26 | | | | 47 | 41 | 130 | 366 | 201 | | 48 | |
| 27 | | | | 47 | 40 | 148 | 312 | 204 | 67 | 48 | |
| 28 | | | | 47 | 40 | 170 | 280 | 198 | 69 | 48 | |
| 29 | | | | 48 | 41 | 194 | 240 | 187 | 67 | 52 | |
| 30 | | | | | 48 | 236 | 226 | 187 | 64 | 48 | 36 |
| 31 | | | | | 40 | | 232 | | 64 | 46 | 36 |
| 1924–25 | | | | | | | | | | | |
| 1 | 37 | 63 | | | | | 148 | 375 | 510 | 152 | 50 |
| 2 | 36 | 57 | | | | | 174 | 343 | 485 | 158 | 49 |
| 3 | 38 | 54 | | | | | 190 | 323 | 485 | 158 | 48 |
| 4 | 39 | 59 | | | | | 215 | 295 | 440 | 137 | 50 |
| 5 | 38 | 52 | | | | | 257 | 247 | 418 | 121 | 52 |
| 6 | 38 | 49 | | | | | 303 | 232 | 395 | 113 | 59 |
| 7 | 37 | 46 | | | | | 332 | 247 | 375 | 111 | 58 |
| 8 | 37 | 46 | | | | | 287 | 251 | 347 | 107 | 57 |
| 9 | 37 | 51 | | | | | 243 | 295 | 343 | 107 | 56 |
| 10 | 38 | 51 | | | | | 222 | 311 | 343 | 98 | 53 |
| 11 | 39 | 48 | | | | | 250 | 291 | 355 | 89 | 52 |
| 12 | 39 | 48 | | | | | 257 | 303 | 355 | 89 | 50 |
| 13 | 38 | | | | | | 276 | 303 | 331 | 98 | 49 |
| 14 | 38 | | | | | 164 | 316 | 295 | 311 | 121 | 50 |
| 15 | 38 | | | | | | 349 | 311 | 307 | 98 | 54 |
| 16 | 37 | | | | | | 433 | 331 | 311 | 89 | 58 |
| 17 | 36 | | | | | | 469 | 355 | 311 | 77 | 53 |
| 18 | 36 | | | | | | 496 | 418 | 303 | 72 | 51 |
| 19 | 36 | | | | | | 555 | 510 | 271 | 70 | 57 |
| 20 | 36 | | | | | 130 | 570 | 560 | 191 | 68 | 58 |
| 21 | 36 | | | | | | 560 | 585 | 188 | 66 | 53 |
| 22 | 36 | | | | | | 510 | 585 | 188 | 64 | 51 |
| 23 | 36 | | | | | | 462 | 612 | 188 | 72 | 49 |
| 24 | 36 | | | | | | 418 | 585 | 185 | 68 | 47 |
| 25 | 35 | | | | | 96 | 440 | 585 | 182 | 60 | 46 |
| 26 | 35 | | | | | 96 | 418 | 585 | 176 | 56 | 45 |
| 27 | 36 | | | | | 93 | 440 | 585 | 173 | 54 | 46 |
| 28 | 43 | | | | | 96 | 485 | 612 | 170 | 54 | 47 |
| 29 | 43 | | | | | 107 | 510 | 612 | 179 | 56 | 49 |
| 30 | 41 | | | | | 124 | 462 | 560 | 170 | 53 | 48 |
| 31 | 50 | | | | | | 418 | | 161 | 49 | |
| 1925–26 | | | | | | | | | | | |
| 1 | 47 | 40 | 39 | | | 39 | 259 | 228 | 207 | 52 | 48 |
| 2 | 46 | 39 | 43 | | | 39 | 243 | 243 | 161 | 52 | 45 |
| 3 | 46 | 38 | 41 | | | 38 | 243 | 255 | 129 | 49 | 42 |
| 4 | 45 | 38 | 39 | | | 38 | 263 | 279 | 113 | 48 | 38 |
| 5 | 45 | 38 | 41 | | | 38 | 228 | 299 | 118 | 46 | 38 |
| 6 | 49 | 38 | 39 | | 30 | 38 | 194 | 323 | 235 | 46 | 37 |
| 7 | 49 | 38 | 38 | | | 39 | 167 | | 140 | 45 | 39 |
| 8 | 47 | 38 | 37 | | | 41 | 149 | | | 46 | 38 |
| 9 | 47 | 38 | 36 | | | 45 | 132 | 257 | | 46 | 36 |
| 10 | 47 | 38 | 36 | | | 50 | 116 | | | 45 | 36 |
| 11 | 49 | 38 | 36 | | 31 | 57 | 113 | | 115 | 44 | 36 |
| 12 | 48 | 40 | 36 | | 33 | 68 | 126 | 191 | | 44 | 36 |
| 13 | 47 | 40 | 36 | | 35 | 78 | 152 | 179 | | 42 | 35 |
| 14 | 46 | 39 | 38 | | 36 | 94 | 170 | 176 | | 41 | 35 |
| 15 | 44 | 39 | 36 | | 37 | 126 | 173 | 164 | 90 | 40 | 37 |
| 16 | 42 | 39 | 35 | | 38 | 170 | 185 | 134 | 84 | 39 | 36 |
| 17 | 43 | 39 | 35 | | 38 | 197 | 194 | 126 | 78 | 39 | 35 |
| 18 | 41 | 39 | 35 | | 37 | 218 | 214 | 146 | 77 | 47 | 36 |
| 19 | 41 | 38 | 35 | | 37 | 210 | 251 | 155 | 74 | 51 | 36 |
| 20 | 41 | 38 | 37 | | 37 | 194 | 287 | 140 | 69 | 47 | 35 |

*Daily discharge, in second-feet, of Wallowa River above Wallowa Lake, near Joseph, Oreg., for the years ending September 30, 1924–1926*—Continued

| Day | Oct. | Nov. | Dec. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1925–26 | | | | | | | | | | | |
| 21 | 40 | 36 | 36 | | 37 | 179 | 275 | 116 | 64 | 43 | 35 |
| 22 | 41 | 37 | 38 | | 38 | 164 | 263 | 118 | 62 | 40 | 35 |
| 23 | 40 | 36 | 40 | | 40 | 149 | 255 | 146 | | 39 | 35 |
| 24 | 39 | 36 | 38 | | 41 | 143 | 224 | 176 | | 38 | 34 |
| 25 | 39 | 36 | 36 | | 41 | 158 | 191 | 191 | | 38 | 34 |
| 26 | 39 | 36 | 36 | | 41 | 176 | 179 | 200 | 57 | 39 | 34 |
| 27 | 39 | 36 | 36 | | 40 | 204 | 182 | 200 | | 39 | 33 |
| 28 | 42 | 36 | 36 | | 40 | 228 | 191 | 182 | | 38 | 33 |
| 29 | 44 | 36 | 36 | | 40 | 255 | 204 | 173 | | 37 | 33 |
| 30 | 42 | 36 | 36 | | 39 | 267 | 235 | 170 | | 54 | 33 |
| 31 | 41 | | 36 | | 40 | | 228 | | | 54 | |

NOTE.—Because of no gage-height record discharge for periods included in braces and daily discharge Dec. 30–31, 1925, Apr. 20–21, 1926, estimated or interpolated.

*Monthly discharge of Wallowa River above Wallowa Lake, near Joseph, Oreg., for the years ending September 30, 1924–1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| 1924 | | | | |
| February 22–29 | 48 | 46 | 46.6 | 739 |
| March | 51 | 40 | 45.9 | 2,820 |
| April | 236 | 40 | 85.8 | 5,110 |
| May | 482 | 215 | 352 | 21,600 |
| June | 345 | 177 | 228 | 13,600 |
| July | 201 | 64 | 109 | 6,700 |
| August | 63 | 46 | 53.5 | 3,290 |
| September | 48 | 36 | 42.0 | 2,500 |
| The period | | | | 56,400 |
| 1924–25 | | | | |
| October | 50 | 35 | 37.9 | 2,330 |
| November 1–12 | 63 | 46 | 52.0 | 1,240 |
| April 14–30 | 164 | 93 | 122 | 4,120 |
| May | 570 | 148 | 370 | 22,800 |
| June | 612 | 232 | 417 | 24,800 |
| July | 510 | 161 | 295 | 18,100 |
| August | 158 | 49 | 89.8 | 5,520 |
| September | 59 | 45 | 51.5 | 3,060 |
| 1925–26 | | | | |
| October | 49 | 39 | 43.7 | 2,690 |
| November | 40 | 36 | 37.8 | 2,250 |
| December | 43 | 35 | 37.2 | 2,290 |
| March | 41 | | 35.4 | 2,180 |
| April | 267 | 38 | 125 | 7,440 |
| May | 287 | 113 | 203 | 12,500 |
| June | 323 | 116 | 200 | 11,900 |
| July | 235 | | 97.4 | 5,990 |
| August | 54 | 38 | 44.1 | 2,710 |
| September | 48 | 33 | 36.4 | 2,170 |

### EAST FORK OF WALLOWA RIVER NEAR JOSEPH, OREG.

LOCATION.—In SE. ¼ sec. 29, T. 3 S., R. 45 E., one-fourth mile above mouth, 1 mile below diversion dam of Wallowa Falls power plant, 1 mile above Wallowa Lake, and 6 miles south of Joseph, Wallowa County.

DISCHARGE AREA.—Not measured.

RECORDS AVAILABLE.—July 27, 1924, to September 30, 1926.

GAGE.—Vertical staff on right bank, 100 yards above bridge on road to power house; read by W. K. Wagner. Also auxiliary inclined gage at diversion dam 1 mile above.

DISCHARGE MEASUREMENTS.—Made from bridge 100 yards below gage, from plank across stream, or by wading.

CHANNEL AND CONTROL.—Channel curved above and below gage. Bed of coarse gravel and boulders; practically permanent. Steep gradient. Banks are not overflowed except in extremely high water. Control 10 feet below gage; well defined.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.44 feet May 1 (discharge, 36 second-feet); minimum stage, 0.70 foot August 24 and 25 (discharge, 1.8 second-feet).

1924–1926: Maximum stage recorded, 1.92 feet June 29, 1925 (discharge, 111 second-feet); minimum stage, that of August 24–25, 1926.

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—The penstock to power house of Wallowa Falls power plant diverts at dam 1 mile upstream.

REGULATION.—Operation of power plants affects flow, maximum effect being during low-water period; during extremely low-water periods in winter practically all flow at dam is diverted.

ACCURACY.—Stage-discharge relation permanent; affected by ice during winter. Rating curve fairly well defined. Staff gage read to hundredths twice daily except during winter and August 12 to September 8, when it was read once daily. Daily discharge ascertained by applying daily or mean daily gage height to rating table. Records good for open channel and fair during ice period.

Discharge over dam, length of crest of spillway being 21.6 feet, has been computed from weir tables for rectangular contracted weir, the application of which was checked by one discharge measurement, for the few days gage at dam was read. These records indicate that inflow between dam and gaging station is 2 to 3 second-feet at low water and averages 17 per cent of flow at gaging station when flow at station is more than 15 second-feet.

*Discharge measurements of East Fork of Wallowa River near Joseph, Oreg., during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Dec. 2 | ------- | 5.1 | Mar. 8 | 0.78 | 2.6 | May 22 | 1.30 | 23.5 |
| Dec. 28 | 0.84 | 3.2 | Apr. 17 | 1.24 | 18.6 | Sept. 22 | .83 | 3.7 |

*Daily discharge, in second-feet, of East Fork of Wallowa River near Joseph, Oreg., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11 | 9.2 | 6.1 | | 6.7 | 3.4 | 4.4 | 33 | 22 | 20 | 5.2 | 7.0 |
| 2 | 8.9 | 8.3 | 5.2 | | 6.4 | 3.0 | 4.2 | 30 | 18 | 17 | 4.6 | 3.0 |
| 3 | 8.9 | 7.6 | 4.6 | | 6.1 | 3.0 | 3.8 | 28 | 23 | 14 | 3.6 | 3.0 |
| 4 | 8.9 | 7.6 | 4.4 | | 5.8 | 3.0 | 4.0 | 32 | 24 | 13 | 3.2 | 3.4 |
| 5 | 8.6 | 7.6 | 5.5 | | 5.2 | 3.0 | 3.6 | 29 | 25 | 12 | 6.1 | 4.2 |
| 6 | 8.3 | 6.4 | 6.4 | | 5.2 | 3.0 | 3.6 | 23 | 26 | 12 | 5.8 | 3.4 |
| 7 | 9.2 | 7.6 | 4.4 | | 5.5 | 3.0 | 4.0 | 20 | 29 | 22 | 6.1 | 4.6 |
| 8 | 8.9 | 8.3 | 4.0 | | 5.2 | 2.8 | 3.8 | 17 | 30 | 16 | 5.2 | 3.8 |
| 9 | 8.9 | 7.6 | 3.0 | | 5.2 | 2.4 | 3.4 | 16 | 29 | 14 | 5.2 | 3.4 |
| 10 | 8.3 | 7.3 | 4.2 | 3.0 | 4.6 | 2.4 | 4.4 | 16 | 27 | 12 | 5.2 | 3.6 |
| 11 | 11 | 6.4 | 4.9 | | 5.2 | 2.8 | 7.0 | 16 | 23 | 12 | 4.4 | 3.4 |
| 12 | 9.6 | 8.3 | 4.0 | | 4.4 | 3.0 | 7.9 | 16 | 22 | 11 | 3.8 | 3.6 |
| 13 | 9.6 | 8.3 | 6.4 | | 3.8 | 3.2 | 7.9 | 16 | 18 | 9.6 | 4.2 | 4.0 |
| 14 | 8.9 | 8.3 | 6.1 | | 3.4 | 3.4 | 9.2 | 17 | 21 | 10 | 3.2 | 3.6 |
| 15 | 9.6 | 8.3 | 5.8 | | 3.0 | 3.0 | 16 | 17 | 21 | 9.6 | 3.8 | 3.2 |
| 16 | 8.9 | 7.6 | 5.6 | | 3.0 | 3.2 | 16 | 18 | 18 | 8.9 | 3.8 | 4.6 |
| 17 | 9.6 | 7.3 | 5.4 | | 3.6 | 3.0 | 20 | 18 | 17 | 8.9 | 3.6 | 3.6 |
| 18 | 10 | 7.0 | 5.2 | | 3.2 | 3.2 | 23 | 18 | 17 | 7.0 | 8.3 | 3.4 |
| 19 | 8.9 | 7.6 | 5.2 | 3.4 | 3.0 | 3.4 | 20 | 21 | 18 | 7.3 | 4.2 | 4.9 |
| 20 | 9.2 | 6.4 | 5.8 | 3.8 | 3.0 | 3.4 | 18 | 25 | 18 | 7.0 | 3.8 | 4.0 |
| 21 | 8.3 | 8.6 | 6.4 | | 4.6 | 4.2 | 17 | 24 | 14 | 6.7 | 3.4 | 3.8 |
| 22 | 8.6 | 8.6 | 7.6 | | 3.2 | 3.2 | 15 | 25 | 12 | 7.0 | 3.4 | 4.0 |
| 23 | 8.3 | 8.3 | 5.2 | | 3.0 | 3.4 | 12 | 26 | 12 | 6.7 | 2.2 | 4.4 |
| 24 | 7.3 | 8.6 | 4.2 | | 3.0 | 5.2 | 8.9 | 26 | 12 | 6.7 | 1.8 | 5.5 |
| 25 | 8.3 | 8.3 | 4.0 | | 4.2 | 4.2 | 17 | 25 | 14 | 8.3 | 1.8 | 4.6 |
| 26 | 7.6 | 8.3 | 3.8 | 3.6 | 4.6 | 4.6 | 18 | 21 | 13 | 6.4 | 2.0 | 4.2 |
| 27 | 8.3 | 7.6 | 3.6 | | 3.4 | 4.6 | 18 | 21 | 12 | 4.2 | 2.0 | 3.6 |
| 28 | 8.6 | 7.6 | 3.2 | | 5.2 | 3.2 | 22 | 20 | 12 | 2.6 | 2.2 | 3.2 |
| 29 | 8.9 | 7.3 | 3.0 | | ------- | 6.1 | 25 | 20 | 14 | 4.6 | 3.4 | 3.8 |
| 30 | 7.9 | 7.0 | 3.0 | | ------- | 3.4 | 32 | 20 | 14 | 4.6 | 12 | 3.2 |
| 31 | 7.6 | ------- | 2.8 | | ------- | 4.0 | ------- | 23 | ------- | 5.8 | 5.8 | ------- |

NOTE.—Stage-discharge relation affected by ice or gage-height record missing Dec. 1–3, 14, 16–17, 20–21, Dec. 24 to Jan. 18, Jan. 21 to Feb. 4, 12–14, Mar. 3–6, and July 2; discharge estimated from climatic records or interpolated. Braced figures show mean estimated discharge for period indicated.

*Monthly discharge of East Fork of Wallowa River near Joseph, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 11 | 7.3 | 8.87 | 545 |
| November | 9.2 | 6.4 | 7.77 | 462 |
| December | 7.6 | 3.0 | 4.81 | 296 |
| January | ------- | ------- | 3.25 | 200 |
| February | 6.7 | 3.0 | 4.38 | 243 |
| March | 6.1 | 2.4 | 3.44 | 212 |
| April | 32 | 3.4 | 12.3 | 732 |
| May | 33 | 16 | 21.8 | 1,340 |
| June | 30 | 12 | 19.2 | 1,140 |
| July | 22 | 2.6 | 9.90 | 609 |
| August | 12 | 1.8 | 4.30 | 264 |
| September | 7.0 | 3.0 | 3.93 | 234 |
| The year | 33 | 1.8 | 8.68 | 6,280 |

### WALLOWA FALLS POWER PLANT TAILRACE[1] NEAR JOSEPH, OREG.

LOCATION.—In SE. ¼ sec. 29, T. 3 S., R. 45 E., 150 feet below power house, one-fourth mile above point where channel discharges into the West Fork of Wallowa River and 6 miles above Joseph, Wallowa County.

RECORDS AVAILABLE.—August 27, 1924, to September 30, 1926.

GAGE.—Vertical staff on right wing wall of weir 150 feet below power house; read by W. K. Wagner.

[1] Formerly called Enterprise Electric Co.'s tailrace.

DISCHARGE MEASUREMENTS.—Made by wading or from plank placed across stream.

CHANNEL AND CONTROL.—Control for gage is a 5-foot Cippoletti weir made from 2-inch plank, beveled at top, and set in concrete.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 0.66 foot at 6 p. m. December 14 and 6 to 7 p. m. December 21 (discharge, 10 second-feet); minimum stage, 0.40 foot during morning hours of October 15, 18, 23, 26, 27, and from 12 to 3 a. m. August 5, and 12 a. m. August 6 (discharge, 4.5 second-feet).

1924–1926: Maximum stage recorded, that of December 14 and 21, 1925; minimum stage recorded, 0.34 foot August 31 and September 1, 1924 (discharge, 3.5 second-feet).

ICE.—Stage-discharge relation not affected by ice.

REGULATION.—Flow regulated by discharge through nozzle for impulse wheel in power house, but opening in nozzle is changed only about twice daily, minor variations in load being taken care of by deflection of nozzle.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Staff gage generally read to hundredths twice daily but occasionally read only once daily. Daily discharge ascertained by applying to rating table daily or mean daily gage height. Records good.

Water is diverted at dam on East Fork of Wallowa River into a conduit 16 to 18 inches in diameter and carried 1 mile to power house. After leaving power house the water follows a tortuous channel for a quarter of a mile and discharges into West Fork. Elevation of crest of dam above nozzle at power house is 1,160 feet.

The following discharge measurements were made:

December 28, 1925: Gage height, 0.57 foot; discharge, 8.1 second-feet.

April 17, 1926: Gage height, 0.53 foot; discharge, 7.5 second-feet.

*Daily discharge, in second-feet, of Wallowa Falls power plant tailrace, near Joseph, Oreg., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.8 | 5.8 | 6.7 | 6.4 | 6.2 | 6.4 | 6.2 | 7.1 | 6.4 | 6.2 | 6.2 | 8.0 |
| 2 | 6.6 | 6.2 | 7.2 | 7.1 | 6.2 | 6.2 | 6.4 | 5.8 | 6.2 | 6.0 | 6.6 | 8.9 |
| 3 | 5.8 | 6.0 | 7.8 | 6.0 | 6.6 | 6.6 | 6.2 | 6.8 | 5.8 | 6.2 | 7.1 | 8.4 |
| 4 | 5.3 | 6.2 | 7.8 | 6.8 | 6.6 | 6.0 | 6.0 | 6.6 | 5.8 | 6.2 | 6.2 | 8.0 |
| 5 | 5.6 | 6.4 | 7.3 | 7.1 | 5.3 | 6.2 | 6.2 | 6.4 | 6.2 | 6.6 | 6.4 | 6.2 |
| 6 | 6.2 | 6.2 | 6.0 | 7.8 | 6.6 | 6.2 | 6.0 | 6.8 | 5.3 | 6.8 | 6.0 | 8.0 |
| 7 | 5.8 | 6.6 | 7.5 | 7.5 | 6.0 | 6.0 | 6.4 | 6.6 | 5.8 | 6.4 | 6.0 | 8.9 |
| 8 | 6.0 | 4.9 | 7.5 | 7.5 | 6.4 | 6.6 | 6.4 | 6.8 | 5.8 | 6.6 | 5.8 | 8.0 |
| 9 | 5.8 | 5.8 | 7.8 | 7.5 | 6.6 | 6.8 | 6.4 | 6.2 | 5.6 | 6.6 | 6.2 | 8.0 |
| 10 | 6.4 | 6.0 | 6.6 | 5.8 | 6.6 | 6.2 | 6.0 | 6.6 | 4.9 | 6.6 | 6.4 | 7.1 |
| 11 | 5.3 | 6.0 | 6.6 | 6.6 | 6.2 | 6.2 | 4.9 | 6.4 | 5.6 | 6.0 | 6.6 | 6.8 |
| 12 | 6.2 | 6.0 | 7.5 | 6.6 | 6.4 | 6.6 | 6.2 | 6.4 | 5.8 | 6.4 | 6.2 | 6.4 |
| 13 | 6.0 | 6.2 | 6.4 | 7.5 | 6.2 | 6.6 | 6.2 | 6.6 | 6.2 | 6.6 | 6.6 | 6.8 |
| 14 | 6.2 | 6.2 | 6.8 | 6.6 | 5.8 | 6.4 | 6.2 | 7.1 | 5.8 | 6.2 | 6.6 | 7.1 |
| 15 | 6.1 | 5.3 | 7.1 | 6.6 | 6.4 | 6.6 | 6.4 | 6.8 | 6.2 | 6.2 | 6.2 | 6.8 |
| 16 | 6.0 | 5.8 | 8.0 | 6.6 | 6.2 | 6.4 | 6.2 | 6.2 | 5.8 | 6.4 | 6.6 | 6.8 |
| 17 | 5.8 | 6.0 | 6.8 | 5.8 | 6.2 | 6.6 | 6.0 | 6.8 | 6.2 | 6.2 | 7.1 | 7.5 |
| 18 | 4.7 | 6.2 | 6.8 | 6.4 | 6.6 | 6.4 | 5.6 | 7.1 | 6.4 | 6.0 | 6.6 | 7.1 |
| 19 | 6.2 | 6.0 | 7.1 | 6.4 | 6.4 | 6.6 | 6.2 | 7.1 | 6.6 | 6.2 | 6.6 | 6.0 |
| 20 | 5.8 | 6.2 | 6.2 | 6.2 | 6.2 | 6.6 | 6.2 | 7.1 | 5.8 | 6.8 | 6.6 | 7.1 |
| 21 | 6.2 | 6.0 | 6.8 | 6.4 | 6.0 | 6.2 | 5.8 | 7.1 | 6.4 | 6.6 | 7.3 | 7.5 |
| 22 | 5.3 | 5.8 | 7.1 | 6.0 | 6.4 | 6.2 | 6.6 | 6.8 | 6.4 | 6.2 | 6.2 | 8.0 |
| 23 | 5.6 | 6.4 | 6.8 | 6.0 | 6.2 | 6.0 | 6.4 | 6.2 | 6.2 | 6.6 | 6.6 | 8.0 |
| 24 | 6.2 | 6.4 | 6.8 | 5.8 | 6.2 | 6.6 | 6.6 | 6.6 | 6.8 | 6.4 | 7.5 | 8.4 |
| 25 | 5.3 | 6.2 | 6.8 | 6.8 | 6.2 | 6.2 | 5.3 | 6.4 | 6.0 | 5.8 | 7.1 | 8.0 |
| 26 | 5.6 | 6.0 | 6.8 | 6.6 | 6.2 | 6.4 | 6.2 | 6.6 | 6.2 | 6.4 | 7.5 | 6.2 |
| 27 | 5.6 | 6.2 | 6.2 | 6.4 | 6.2 | 6.2 | 6.4 | 6.2 | 5.8 | 6.8 | 6.6 | 7.1 |
| 28 | 6.2 | 6.4 | 7.3 | 6.2 | 5.8 | 5.8 | 6.6 | 6.6 | 6.4 | 7.5 | 6.2 | 7.8 |
| 29 | 6.0 | 6.0 | 6.6 | 6.6 | ------- | 6.2 | 6.6 | 6.4 | 6.0 | 6.6 | 6.2 | 6.8 |
| 30 | 6.2 | 6.2 | 7.3 | 6.8 | ------- | 6.8 | 6.6 | 6.2 | 6.2 | 7.1 | 6.6 | 8.0 |
| 31 | 6.2 | ------- | 6.8 | 5.8 | ------- | 6.2 | ------- | 6.0 | ------- | 6.6 | 7.1 | ------- |

*Monthly discharge of Wallowa Falls power plant tailrace near Joseph, Oreg., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 6.6 | 4.7 | 5.87 | 361 |
| November | 6.6 | 4.9 | 6.05 | 360 |
| December | 7.8 | 6.0 | 6.99 | 430 |
| January | 7.8 | 5.8 | 6.59 | 405 |
| February | 6.6 | 5.8 | 6.25 | 347 |
| March | 6.8 | 5.8 | 6.35 | 390 |
| April | 6.6 | 4.9 | 6.18 | 368 |
| May | 7.1 | 5.8 | 6.59 | 405 |
| June | 6.8 | 4.9 | 6.02 | 358 |
| July | 7.5 | 5.8 | 6.45 | 397 |
| August | 7.5 | 5.8 | 6.56 | 403 |
| September | 8.9 | 6.0 | 7.46 | 444 |
| The year | 8.9 | 4.7 | 6.45 | 4,670 |

### HURRICANE CREEK NEAR JOSEPH, OREG.

LOCATION.—In NE. ¼ sec. 3, T. 3 S., R. 44 E., 175 feet above intake of Moonshine ditch, 3½ miles southwest of Joseph, Wallowa County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 27 to September 3, 1915; April 23, 1924, to September 30, 1926; incomplete.

GAGE.—Stevens 8-day water-stage recorder on left bank; inspected by L. A. Stanley.

DISCHARGE MEASUREMENTS.—Made from footbridge 100 feet below gage.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders; subject to shifts. Current swift and turbulent at high stages. Banks steep; one channel at all stages.

EXTREMES OF DISCHARGE.—1924: Maximum stage from water-stage recorder, 2.38 feet at 7 p. m. May 13 (discharge, 525 second-feet); minimum stage, 0.75 foot September 30 (discharge, 30 second-feet).

1925: Maximum stage, from water-stage recorder, 2.33 feet at 6 p. m. June 21 (discharge, 570 second-feet); minimum stage, 0.42 foot at 10 a. m. September 28 (discharge, 29 second-feet).

1926: Maximum stage, from water-stage recorder, 1.47 feet at 8 p. m. June 6 (discharge, 228 second-feet); minimum stage, 0.34 foot, 11 a. m. to 1 p. m. September 24 (discharge, 23 second-feet).

1915, 1924–1926: Maximum discharge recorded, that of June 21, 1925; minimum discharge, that of September 24, 1926.

ICE.—No record obtained during winter.

DIVERSIONS.—None above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed June 21, 1925. Rating curves used before and after change are fairly well defined below 500 second-feet. Operation of water-stage recorder satisfactory except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph. Records good except those for estimated periods, which are fair.

COOPERATION.—Records furnished by State engineer of Oregon.

*Discharge measurements of Hurricane Creek near Joseph, Oreg., during the years ending September 30, 1923–1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| 1923 | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| (?) | 2.52 | 504 | Aug. 15 | 0.86 | 35 | Oct. 29 | 0.42 | 31 |
| June 9 | 1.81 | 273 | | | | | | |
| Sept. 18 | .72 | 30 | 1925 | | | 1926 | | |
| | | | Apr. 21 | 1.23 | 95 | Mar. 28 | .39 | 25 |
| 1924 | | | May 2 | 1.33 | 118 | May 22 | 1.24 | 165 |
| May 10 | 1.63 | 202 | May 20 | 2.16 | 416 | Aug. 10 | .46 | 28 |
| July 1 | 1.37 | 108 | Sept. 12 | .47 | 38 | | | |

*Daily discharge, in second-feet, of Hurricane Creek near Joseph, Oreg., for the years ending September 30, 1924–1926*

| Day | Oct. | Nov. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|
| 1924 | | | | | | | | | |
| 1 | | | | | | 220 | 130 | | 33 |
| 2 | | | | | | 249 | 136 | | 33 |
| 3 | | | | | | 249 | 130 | | 33 |
| 4 | | | | | | 230 | 122 | | 33 |
| 5 | | | | | 200 | 202 | 122 | | 33 |
| 6 | | | | | | 182 | 108 | | 32 |
| 7 | | | | | | 152 | 103 | | 32 |
| 8 | | | | | | 149 | 96 | 50 | 33 |
| 9 | | | | | | 149 | 92 | | 32 |
| 10 | | | | | 268 | 149 | 89 | | 32 |
| 11 | | | | | 369 | 146 | 85 | | 32 |
| 12 | | | | | 412 | 149 | 80 | | 31 |
| 13 | | | | | 435 | 162 | 80 | | |
| 14 | | | | | 412 | 175 | 80 | | |
| 15 | | | | | 390 | 178 | 80 | 36 | |
| 16 | | | | | 390 | 182 | | | |
| 17 | | | | | 369 | 169 | | | |
| 18 | | | | | 348 | 149 | | | |
| 19 | | | | | 348 | 143 | | | |
| 20 | | | | | 348 | 143 | | | |
| | | | | | | | | 36 | 30 |
| 21 | | | | | 328 | 152 | | | |
| 22 | | | | | 328 | 152 | | | |
| 23 | | | | 36 | 308 | 149 | | | |
| 24 | | | | | 348 | 146 | 65 | | |
| 25 | | | | | 328 | 140 | | 35 | |
| 26 | | | | | 249 | 133 | | 34 | |
| 27 | | | | 100 | 202 | 127 | | 35 | |
| 28 | | | | | 178 | 122 | | 34 | |
| 29 | | | | | 178 | 125 | | 34 | |
| 30 | | | | | 178 | 127 | | 34 | 30 |
| 31 | | | | | 178 | | | 33 | |
| 1924–25 | | | | | | | | | |
| 1 | 30 | | | | 98 | 198 | | 87 | 40 |
| 2 | 30 | | | | 116 | 169 | | 84 | 39 |
| 3 | 30 | | | | 122 | 156 | 322 | 96 | 38 |
| 4 | 30 | | | | 140 | 156 | | 82 | 39 |
| 5 | 30 | | | | 169 | 146 | | 72 | 41 |
| 6 | 30 | | | | 209 | 136 | 245 | 69 | 42 |
| 7 | 30 | | | | 220 | 133 | 238 | 68 | 39 |
| 8 | | | | | 169 | 136 | 232 | 63 | 38 |
| 9 | | | | | 149 | 162 | 228 | 62 | 37 |
| 10 | | | | | 152 | 162 | 232 | 58 | 36 |
| 11 | | | | | 156 | 156 | 232 | 57 | 35 |
| 12 | | 30 | | 103 | 159 | 156 | 235 | 56 | 34 |
| 13 | | | | 103 | 178 | 159 | 228 | 64 | 35 |
| 14 | | | | 98 | 212 | 149 | 222 | 72 | 35 |
| 15 | | | | 113 | 268 | 156 | 216 | 58 | 36 |
| 16 | | | | 133 | 369 | 178 | 222 | 56 | 38 |
| 17 | | | | 136 | 390 | 202 | 222 | 54 | 37 |
| 18 | | | | 116 | 412 | 308 | 200 | 50 | 34 |
| 19 | | | | 108 | 390 | 412 | 177 | 48 | 37 |
| 20 | | | | 98 | 435 | 435 | 132 | 49 | 63 |

*Daily discharge, in second-feet, of Hurricane Creek near Joseph, Oreg., for the years ending September 30, 1924–1926*—Continued

| Day | Oct. | Nov. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|
| 1924–25 | | | | | | | | | |
| 21 | | | | 87 | 412 | 528 | 123 | 49 | 35 |
| 22 | | | | 85 | 308 | 485 | 130 | 48 | 34 |
| 23 | | | | 85 | 308 | 420 | 121 | 51 | 33 |
| 24 | | | | 76 | 308 | 400 | 130 | 48 | 32 |
| 25 | | | | 73 | 308 | 400 | 119 | 46 | 31 |
| 26 | | | | 71 | 308 | 420 | 111 | 46 | 31 |
| 27 | | | | 71 | 328 | 420 | 105 | 45 | 32 |
| 28 | | | | 71 | 390 | 442 | 105 | 45 | 32 |
| 29 | | | | 73 | 390 | 420 | 100 | 45 | 32 |
| 30 | | | | 82 | 328 | 400 | 91 | 42 | 32 |
| 31 | | | | | 253 | | 87 | 39 | |
| 1925–26 | | | | | | | | | |
| 1 | | 27 | | 25 | 183 | 150 | 138 | | 40 |
| 2 | | 27 | | 25 | 169 | 153 | 100 | | 38 |
| 3 | | 26 | | 25 | 172 | 164 | 86 | | 36 |
| 4 | | 26 | | 25 | 180 | 180 | 80 | | 35 |
| 5 | | | | | 161 | 189 | 81 | 36 | 33 |
| 6 | | | | | 135 | 197 | 94 | | 32 |
| 7 | | | | | 115 | 197 | 89 | | 33 |
| 8 | 30 | | | | 105 | 177 | 81 | | 33 |
| 9 | | | | | 96 | 155 | | | 31 |
| 10 | | | | | 86 | 138 | | 33 | 30 |
| 11 | | | | | 89 | 128 | | 32 | 30 |
| 12 | | | | 75 | 111 | 117 | 66 | 31 | 29 |
| 13 | | | | | 128 | 107 | | 31 | 29 |
| 14 | | | | | 135 | 105 | | 31 | 29 |
| 15 | | | | | 130 | 92 | | 31 | 29 |
| 16 | 29 | | | | 135 | 81 | | 31 | 29 |
| 17 | 29 | | | | 140 | 82 | 50 | 31 | 28 |
| 18 | 29 | | | | 155 | 89 | 49 | 38 | 27 |
| 19 | 28 | | | | 180 | 91 | 49 | 38 | 27 |
| 20 | 28 | | | 125 | 203 | 87 | 48 | 34 | 27 |
| 21 | 28 | | | 113 | 180 | 82 | | 33 | 27 |
| 22 | 28 | | | 100 | 177 | 89 | | 30 | 27 |
| 23 | 28 | | | 86 | 172 | 109 | | 29 | 27 |
| 24 | 29 | | | 86 | 150 | 119 | | 28 | 26 |
| 25 | 29 | | | 101 | 132 | 125 | | 27 | 26 |
| 26 | 29 | | | 125 | 125 | 130 | 44 | 28 | 26 |
| 27 | 29 | | | 142 | 138 | 128 | | 28 | 26 |
| 28 | 29 | | 26 | 166 | 145 | 117 | | 27 | 26 |
| 29 | 29 | | 26 | 186 | 150 | 113 | | 26 | 26 |
| 30 | 27 | | 25 | 200 | 150 | 107 | | 41 | 27 |
| 31 | 27 | | 26 | | 140 | | | 45 | |

NOTE.—Because of unsatisfactory operation of water-stage recorder, mean discharge for periods included by braces and daily discharge May 29–30, 1924, Apr. 20, 1925, May 9–10, Aug. 16, Sept. 8–11, 20–21, Sept. 14–15, 1926, and Sept. 27–28, interpolated or estimated by comparison with records for other near-by streams.

*Monthly discharge of Hurricane Creek near Joseph, Oreg., during the years ending September 30, 1924–1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| 1924 | | | | |
| April 23–30 | | | 92.0 | 1,460 |
| May | 435 | 178 | 280 | 17,200 |
| June | 249 | 122 | 163 | 9,700 |
| July | 136 | | 83.0 | 5,100 |
| August | | 33 | 41.9 | 2,580 |
| September | 33 | 30 | 31.0 | 1,840 |
| The period | | | | 37,900 |

*Monthly discharge of Hurricane Creek near Joseph, Oreg., during the years ending September 30, 1924–1926*—Continued

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| 1925 | | | | |
| April 12–30 | 136 | 71 | 93.8 | 3,530 |
| May | 435 | 98 | 263 | 16,200 |
| June | 528 | 133 | 273 | 16,200 |
| July | | 87 | 197 | 12,100 |
| August | 87 | 39 | 58.4 | 3,590 |
| September | 42 | 31 | 35.7 | 2,120 |
| The period | | | | 53,700 |
| 1925–26 | | | | |
| October | | 27 | 29.2 | 1,800 |
| April | 200 | 25 | 88.5 | 5,270 |
| May | 203 | 86 | 144 | 8,850 |
| June | 197 | 81 | 127 | 7,560 |
| July | 138 | | 63.1 | 3,880 |
| August | 45 | 26 | 33.1 | 2,040 |
| September | 40 | 26 | 29.6 | 1,760 |

### LOSTINE RIVER NEAR LOSTINE, OREG.

LOCATION.—In NW. ¼ sec. 34, T. 1 S., R. 43 E., 10 miles above mouth of stream and 3½ miles south of Lostine, Wallowa County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—August 24, 1912, to March 31, 1914; April 23 to September 25, 1915; July 21, 1925, to September 30, 1926; incomplete.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by L. A. Stanley.

DISCHARGE MEASUREMENTS.—Made from wagon bridge 100 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of sand, gravel, and boulders; may shift slightly. Left bank high; right bank likely to be overflowed.

EXTREMES OF DISCHARGE.—Maximum stage during 1925 and 1926, from water-stage recorder, 3.63 feet at 7 p. m. May 20, 1926 (discharge, 665 second-feet); minimum stage, 0.17 foot at 10 p. m. August 29, 1926 (discharge, 18 second-feet).

1912–1914, 1915, 1925–1926: Maximum stage recorded, 6.60 feet May 27, 1913 (discharge, 2,540 second-feet); minimum discharge, that of August 29, 1926.

ICE.—Record discontinued during winter.

DIVERSIONS.—No large diversions above or below station.

REGULATION.—Minam Lake Reservoir, 18 miles above station, regulates flow to a small extent.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined between 30 and 500 second-feet and extended above and below these limits. Operation of water-stage recorder satisfactory except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph. Records good.

COOPERATION.—Records furnished by State engineer of Oregon.

*Discharge measurements of Lostine River near Lostine, Oreg., during the years ending September 30, 1925 and 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| 1925 | *Feet* | *Sec.-ft.* | 1926 | *Feet* | *Sec.-ft.* |
| July 21 | 1.49 | 205 | Apr. 16 | 2.21 | 365 |
| Sept. 17 | .67 | 63 | May 19 | 2.94 | 502 |
| | | | Aug. 11 | .51 | 42.6 |

*Daily discharge, in second-feet, of Lostine River near Lostine, Oreg., for the years ending September 30, 1925 and 1926*

| Day | Oct. | Nov. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|
| 1925 | | | | | | | | |
| 1 | | | | | | | 136 | 40 |
| 2 | | | | | | | 129 | 39 |
| 3 | | | | | | | 149 | 38 |
| 4 | | | | | | | 126 | 38 |
| 5 | | | | | | | 111 | 43 |
| 6 | | | | | | | 101 | 54 |
| 7 | | | | | | | 84 | |
| 8 | | | | | | | 74 | |
| 9 | | | | | | | 70 | |
| 10 | | | | | | | | |
| 11 | | | | | | | 75 | 56 |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | 79 | |
| 15 | | | | | | | 79 | |
| 16 | | | | | | | 79 | |
| 17 | | | | | | | 73 | 59 |
| 18 | | | | | | | 66 | 40 |
| 19 | | | | | | | 59 | 41 |
| 20 | | | | | | | 54 | 48 |
| 21 | | | | | | 221 | 52 | 41 |
| 22 | | | | | | 229 | 48 | 38 |
| 23 | | | | | | 213 | 59 | 36 |
| 24 | | | | | | 217 | 76 | 52 |
| 25 | | | | | | 209 | 53 | 51 |
| 26 | | | | | | 183 | 49 | 41 |
| 27 | | | | | | 176 | 46 | 39 |
| 28 | | | | | | 170 | 46 | 39 |
| 29 | | | | | | 164 | 46 | 42 |
| 30 | | | | | | 149 | 43 | 38 |
| 31 | | | | | | 140 | 39 | |
| 1925–26 | | | | | | | | |
| 1 | 35 | 32 | | 573 | 438 | 278 | | |
| 2 | 34 | 32 | | 527 | 449 | 258 | | |
| 3 | 34 | 30 | | 527 | 460 | 217 | | |
| 4 | 31 | 28 | | 527 | 493 | 191 | | 70 |
| 5 | 26 | 25 | | 405 | 516 | 178 | 41 | |
| 6 | 31 | 25 | | 405 | 550 | 174 | | |
| 7 | 36 | | | 352 | 538 | 187 | | |
| 8 | 35 | | | 300 | 504 | 162 | | 53 |
| 9 | 33 | | | 268 | 427 | | | 47 |
| 10 | 32 | | | 251 | 373 | | | 41 |
| 11 | 40 | | 128 | 247 | 342 | 126 | 42 | 39 |
| 12 | 38 | | 158 | 289 | 310 | | 37 | 37 |
| 13 | 35 | | 195 | 342 | 289 | | 36 | 37 |
| 14 | 34 | | 227 | | 278 | | 34 | 35 |
| 15 | 33 | | 300 | | 258 | 90 | 35 | 34 |
| 16 | 32 | | 373 | 452 | 237 | 82 | 32 | 38 |
| 17 | 30 | | 427 | | 213 | 73 | 31 | 37 |
| 18 | 26 | | 460 | | 229 | 67 | 43 | 36 |
| 19 | 24 | | 460 | 562 | 235 | 63 | 56 | 35 |
| 20 | 24 | | 460 | 642 | 227 | 59 | 36 | 32 |
| 21 | 23 | | 405 | 573 | 227 | 53 | 31 | 32 |
| 22 | 23 | | 352 | 562 | 217 | 52 | 28 | 36 |
| 23 | | | 300 | 550 | 251 | 49 | 25 | 37 |
| 24 | | | 300 | 471 | 278 | 47 | 24 | 32 |
| 25 | | | 373 | 416 | 289 | 45 | 24 | 34 |
| 26 | 30 | | 373 | 394 | 300 | 42 | 24 | 36 |
| 27 | | | 438 | 427 | 289 | 41 | 24 | 34 |
| 28 | | | 504 | 438 | 268 | 39 | 23 | 33 |
| 29 | | | 573 | 449 | 249 | 40 | 21 | 33 |
| 30 | 36 | | 619 | 449 | 237 | 40 | 43 | 39 |
| 31 | 36 | | | 427 | | 40 | 88 | |

NOTE.—Because of unsatisfactory operation of water-stage recorder mean discharge for periods included in brackets and daily discharge Apr. 24–25, 1926, May 4–5, and July 29–31, estimated or interpolated.

*Monthly discharge of Lostine River near Lostine, Oreg., for the years ending September 30, 1925 and 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| 1925 | | | | |
| July 21–31 | 229 | 140 | 188 | 4,100 |
| August | 149 | 39 | 75.0 | 4,610 |
| September | 59 | 36 | 47.2 | 2,810 |
| The period | | | | 11,500 |
| 1925–26 | | | | |
| October | 40 | 26 | 31.3 | 1,930 |
| November 1–6 | 32 | 25 | 28.7 | 342 |
| April 11–30 | 619 | 128 | 371 | 14,700 |
| May | 642 | 247 | 440 | 27,100 |
| June | 550 | 213 | 332 | 19,800 |
| July | 278 | 39 | 107 | 6,580 |
| August | 88 | 21 | 37.0 | 2,280 |
| September | 70 | 32 | 44.6 | 2,650 |

### BEAR CREEK NEAR WALLOWA, OREG.

LOCATION.—In NW. ¼ sec. 3, T. 1 S., R. 42 E., just above bridge 5½ miles southwest of Wallowa, Wallowa County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 22, 1924, to September 30, 1926; incomplete. April 13 to September 16, 1915, comparable record at site half a mile downstream.

DISCHARGE MEASUREMENTS.—Made from cable 8 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders; practically permanent. One channel at all stages.

EXTREMES OF DISCHARGE.—1924: Maximum stage from water-stage recorder, 3.91 feet at 8 p. m. May 13 (discharge, 1,000 second-feet); minimum stage, 0.76 foot, indicated by recording pencil during period clock was not running September 10–30 (discharge, 6 second-feet).

1925: Maximum stage, from water-stage recorder, 3.80 feet at 10 p. m. May 19 (discharge, 930 second-feet); minimum stage, 0.88 foot at 10 a. m. September 26 (discharge, 10 second-feet).

1926: Maximum stage, 3.09 feet at 8 a. m. April 29 (discharge, 528 second-feet); minimum stage, 0.77 foot at 2 p. m. August 14 (discharge, 6 second-feet).

1915, 1924–1926: Maximum discharge, that of May 13, 1924; minimum discharge, that of September 30, 1924, and August 14, 1926.

ICE.—No record obtained during winter.

DIVERSIONS.—None above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined below 1,000 second-feet. Operation of water-stage recorder satisfactory except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph. Records good except those for estimated periods, for which they are fair.

COOPERATION.—Records furnished by State engineer of Oregon.

*Discharge measurements of Bear Creek near Wallowa, Oreg., during the years ending September 30, 1925 and 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| 1924 | *Feet* | *Sec.-ft.* | 1926 | *Feet* | *Sec.-ft.* |
| Oct. 21 | 0.87 | 10.5 | Mar. 15 | 1.88 | 116 |
| | | | Apr. 16 | 2.56 | 294 |
| 1925 | | | Aug. 11 | .80 | 6.8 |
| Apr. 24 | 2.17 | 171 | Sept. 9 | 1.05 | 19.8 |
| May 2 | 2.62 | 325 | | | |
| May 23 | 3.01 | 490 | | | |
| Sept. 14 | .90 | 10.9 | | | |

*Daily discharge, in second-feet, of Bear Creek near Wallowa, Oreg., for the years ending September 30, 1924–1926*

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1924 | | | | | | | 1924 | | | | | | |
| 1 | | 414 | 268 | 65 | | 7 | 16 | | 730 | 182 | 23 | | |
| 2 | | 487 | 290 | 60 | | 7 | 17 | | 670 | 168 | 22 | | |
| 3 | | 524 | 290 | 55 | | 7 | 18 | | 620 | 150 | 22 | | |
| 4 | | 459 | 272 | 50 | | 7 | 19 | | 590 | 132 | 25 | | |
| 5 | | 336 | 225 | 49 | | 7 | 20 | | 566 | 115 | 31 | | |
| 6 | | 275 | 198 | 45 | | 6 | 21 | | 515 | 115 | 26 | 12 | |
| 7 | | 265 | 172 | 40 | | 6 | 22 | 138 | 496 | 113 | 23 | | |
| 8 | | 305 | 158 | 36 | 12 | 7 | 23 | 160 | 478 | 107 | 21 | | 8 |
| 9 | | 414 | 168 | 32 | | 8 | 24 | 172 | 437 | 99 | | | |
| 10 | | 533 | 172 | | | | 25 | 168 | 455 | 91 | | | |
| 11 | | 620 | 187 | | | | 26 | 185 | 348 | 86 | | 7 | |
| 12 | | 680 | 182 | 28 | | 8 | 27 | 231 | 279 | 87 | 19 | 7 | |
| 13 | | 765 | 185 | | | | 28 | 268 | 231 | 81 | | 7 | |
| 14 | | 770 | 204 | | | | 29 | 293 | 198 | 75 | | 7 | |
| 15 | | 740 | 193 | | | | 30 | 352 | 193 | 70 | | 7 | |
| | | | | | | | 31 | | 219 | | | 7 | |

| Day | Oct. | Nov. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|
| 1924–25 | | | | | | | | | |
| 1 | | | | 93 | 282 | 324 | 225 | 24 | 12 |
| 2 | | | | 90 | 356 | 312 | 215 | 28 | 12 |
| 3 | | | | 96 | 378 | 275 | 187 | 41 | 12 |
| 4 | | | | 126 | 414 | 241 | 170 | 30 | 12 |
| 5 | | | | 158 | 505 | 228 | 154 | 26 | 13 |
| 6 | | | | 182 | 600 | 215 | 142 | 23 | 15 |
| 7 | | | | 209 | 515 | 219 | 126 | 23 | 13 |
| 8 | | | | 258 | 478 | 235 | 112 | 21 | 15 |
| 9 | | | | 328 | 361 | 301 | 105 | 20 | 13 |
| 10 | | | | 432 | 348 | 320 | 102 | 19 | 12 |
| 11 | | | | 542 | 396 | 268 | 99 | 18 | 12 |
| 12 | | | | 590 | 396 | 261 | 90 | 17 | 12 |
| 13 | | | | 496 | 441 | 261 | 70 | 20 | 11 |
| 14 | | | | 141 | 510 | 241 | 68 | 34 | 11 |
| 15 | | | | 450 | 605 | 268 | 65 | 27 | 14 |
| 16 | | | | 501 | 680 | 316 | 60 | 24 | 15 |
| 17 | | | | 487 | 780 | 340 | 57 | 23 | 13 |
| 18 | | | | 396 | 780 | 423 | 55 | 21 | 13 |
| 19 | | | | 324 | 805 | 510 | 48 | 20 | 13 |
| 20 | | | | 268 | 805 | 533 | 46 | 18 | 14 |
| 21 | | | | 238 | 755 | 519 | 41 | 18 | 13 |
| 22 | | | | 231 | 590 | 501 | 44 | 18 | 12 |
| 23 | | | | 201 | 538 | 441 | 44 | 20 | 11 |
| 24 | | | | 180 | 542 | 383 | 42 | 20 | 11 |
| 25 | | | | 163 | 542 | 361 | 39 | 17 | 11 |
| 26 | | | 105 | 154 | 510 | 361 | 34 | 16 | 11 |
| 27 | | | 107 | 156 | 533 | 352 | 30 | 17 | 11 |
| 28 | | | 112 | 168 | 590 | 320 | 28 | 15 | 13 |
| 29 | | | 108 | 193 | 580 | 286 | 26 | 15 | 15 |
| 30 | | | 104 | 241 | 496 | 248 | 26 | 15 | 13 |
| 31 | | | 96 | | 383 | | 25 | 13 | |

*Daily discharge, in second-feet, of Bear Creek near Wallowa, Oreg., for the years ending September 30, 1924–26*—Continued

| Day | Oct. | Nov. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|
| 1925–26 | | | | | | | | | |
| 1 | 12 | 20 | | 68 | 418 | 187 | 59 | 8 | 20 |
| 2 | 11 | 20 | | 60 | 374 | 182 | 50 | | 23 |
| 3 | 11 | | | 64 | 361 | 190 | 46 | | 20 |
| 4 | 11 | | | | 396 | 190 | 39 | | 19 |
| 5 | 10 | | | | 312 | 185 | 36 | | 18 |
| 6 | 10 | | | 96 | 255 | 196 | 33 | 8 | 18 |
| 7 | 11 | | | | 209 | | 34 | | 22 |
| 8 | 11 | | | | 177 | | 31 | | 23 |
| 9 | 11 | | | | 158 | | 30 | | 20 |
| 10 | 11 | | | | 146 | 138 | 27 | | 20 |
| 11 | 16 | | | 128 | 148 | | 25 | 7 | 18 |
| 12 | 15 | | | 152 | 170 | | 23 | 7 | 17 |
| 13 | 13 | | | 182 | 209 | | 21 | 7 | 17 |
| 14 | 12 | | | 212 | 235 | 80 | 20 | 6 | 16 |
| 15 | 12 | | 118 | 275 | 225 | 86 | 18 | 6 | 16 |
| 16 | 12 | | 128 | 344 | 231 | 83 | 18 | 7 | 20 |
| 17 | 12 | | 118 | 387 | 275 | 70 | 16 | 8 | 18 |
| 18 | 12 | | 108 | 387 | 324 | 76 | 15 | 16 | 17 |
| 19 | 12 | | 100 | 428 | 374 | 81 | 13 | 13 | 17 |
| 20 | 13 | | 98 | 383 | 441 | 90 | 13 | 9 | 17 |
| 21 | 13 | | 90 | 320 | 374 | 88 | 12 | 9 | 17 |
| 22 | 14 | | 88 | 265 | 352 | 80 | 11 | 9 | 20 |
| 23 | 13 | | 98 | 258 | 312 | 79 | 10 | 8 | 19 |
| 24 | 13 | | 102 | 212 | 268 | 77 | 10 | 7 | 17 |
| 25 | 13 | | 98 | 238 | 225 | 73 | 9 | 7 | 18 |
| 26 | 13 | | 93 | 282 | 204 | 68 | 9 | 7 | 19 |
| 27 | 13 | | 87 | 316 | 209 | 61 | 9 | 8 | 20 |
| 28 | 20 | | 80 | 383 | 215 | 58 | 9 | 7 | 20 |
| 29 | 25 | | 74 | 441 | 204 | 53 | 9 | 7 | 20 |
| 30 | 22 | | 70 | 487 | 187 | 48 | 8 | 20 | 22 |
| 31 | 22 | | 72 | | 182 | | 8 | 24 | |

NOTE.—Because of unsatisfactory operation of water-stage recorder mean discharge for periods included in braces and daily discharge June 28 to July 1, 1924, estimated or interpolated.

*Monthly discharge of Bear Creek near Wallowa, Oreg., for the years ending September 30, 1924–1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| 1924 | | | | |
| April 22–30 | 352 | 138 | 219 | 3,910 |
| May | 770 | 193 | 471 | 29,000 |
| June | 290 | 70 | 161 | 9,580 |
| July | 65 | | 30.5 | 1,880 |
| August | | 7 | 11.0 | 676 |
| September | | 6 | 7.7 | 458 |
| The period | | | | 45,500 |
| 1925 | | | | |
| March 26–31 | 112 | 96 | 105 | 1,250 |
| April | 590 | 90 | 280 | 16,700 |
| May | 805 | 282 | 532 | 32,700 |
| June | 533 | 215 | 329 | 19,600 |
| July | 225 | 25 | 83.1 | 5,110 |
| August | 41 | 13 | 21.3 | 1,310 |
| September | 15 | 11 | 12.6 | 750 |
| The period | | | | 77,400 |
| 1925–26 | | | | |
| October | 25 | 10 | 13.5 | 830 |
| March 15–31 | 128 | 70 | 95.4 | 3,220 |
| April | 487 | 60 | 231 | 13,700 |
| May | 441 | 146 | 264 | 16,200 |
| June | 196 | 48 | 112 | 6,660 |
| July | 59 | 8 | 21.6 | 1,330 |
| August | 24 | 6 | 9.0 | 553 |
| September | 23 | 16 | 18.9 | 1,120 |

### CLEARWATER RIVER AT KAMIAH, IDAHO

LOCATION.—In sec. 1, T. 33 N., R. 3 E., at former toll bridge in town of Kamiah, Lewis County, 6 miles below mouth of South Fork of Clearwater River.

DRAINAGE AREA.—4,850 square miles (measured on General Land Office map).

RECORDS AVAILABLE.—August 20, 1910, to September 30, 1926.

GAGE.—Chain gage attached to downstream handrail of bridge; installed May 30, 1911; read by Mrs. Lillian Nickel.

DISCHARGE MEASUREMENTS.—Made from bridge.

CHANNEL AND CONTROL.—Bed and control consists of heavy boulders and gravel; control practically permanent. One channel at low water, two channels between gage heights about 5 and 8 feet, and one channel above gage height 8 feet.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 11.1 feet on April 19 and May 1 (discharge, 35,900 second-feet); minimum stage recorded, 2.1 feet August 15 and 16 (discharge 1,040 second-feet).

1910–1926: Maximum stage recorded, 16.1 feet May 26, 1913 (discharge, 76,600 second-feet); minimum stage occurred in December, 1919, when stage-discharge relation was affected by ice (discharge probably less than 500 second-feet).

ICE.—Stage-discharge relation affected by ice except during mild winters.

DIVERSIONS.—Several small ditches divert water for irrigation above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined below 50,000 second-feet. Gage read to tenths once daily. Daily discharge ascertained by applying daily gage height to rating table. Records good.

COOPERATION.—Gage-height record furnished by United States Weather Bureau.

*Discharge measurements of Clearwater River at Kamiah, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 20 | 5.39 | 6,910 | Aug. 10 | 2.26 | 1,180 |
| May 12 | 7.40 | 14,100 | Sept. 6 | 2.65 | 1,610 |
| July 6 | 3.68 | 3,120 | | | |

*Daily discharge, in second-feet, of Clearwater River at Kamiah, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,050 | 2,920 | 2,330 | 2,470 | 2,050 | 3,910 | 5,710 | 35,900 | 12,300 | 3,730 | 1,320 | 3,240 |
| 2 | 2,050 | 2,620 | 2,620 | 2,330 | 2,050 | 4,100 | 4,960 | 31,000 | 11,500 | 3,910 | 1,320 | 2,920 |
| 3 | 1,910 | 2,330 | 3,080 | 1,910 | 2,050 | 4,300 | 4,730 | 27,600 | 11,900 | 3,400 | 1,320 | 2,620 |
| 4 | 2,050 | 2,330 | 2,770 | 2,330 | 2,330 | 4,510 | 5,710 | 27,000 | 11,100 | 3,240 | 1,130 | 2,330 |
| 5 | 1,780 | 2,050 | 2,770 | 2,770 | 3,560 | 4,730 | 5,450 | 25,000 | 10,300 | 3,080 | 1,130 | 2,050 |
| 6 | 1,780 | 1,910 | 2,330 | 3,400 | 3,730 | 4,510 | 5,710 | 23,200 | 9,910 | 2,920 | 1,130 | 1,540 |
| 7 | 2,190 | 1,910 | 3,240 | 3,400 | 7,160 | 4,510 | 5,980 | 20,000 | 9,540 | 2,920 | 1,130 | 2,190 |
| 8 | 2,190 | 1,780 | 2,920 | 2,920 | 6,260 | 4,100 | 5,980 | 18,100 | 9,540 | 3,400 | 1,130 | 2,050 |
| 9 | 1,910 | 1,910 | 2,770 | 2,470 | 4,960 | 4,100 | 6,550 | 17,100 | 8,830 | 3,400 | 1,220 | 2,330 |
| 10 | 1,910 | 2,190 | 2,770 | 2,330 | 5,200 | 4,100 | 7,160 | 15,300 | 8,140 | 3,080 | 1,320 | 2,190 |
| 11 | 1,910 | 2,190 | 2,920 | 2,190 | 5,450 | 4,100 | 8,480 | 14,800 | 6,550 | 2,920 | 1,320 | 1,910 |
| 12 | 1,780 | 2,330 | 3,730 | 1,910 | 4,960 | 4,300 | 10,700 | 14,400 | 6,550 | 2,770 | 1,320 | 1,780 |
| 13 | 1,780 | 2,190 | 3,560 | 1,780 | 4,510 | 4,730 | 14,000 | 15,300 | 6,550 | 2,620 | 1,220 | 1,660 |
| 14 | 1,780 | 2,190 | 3,240 | 1,910 | 4,100 | 6,850 | 15,300 | 16,200 | 6,550 | 2,330 | 1,130 | 1,540 |
| 15 | 1,660 | 2,050 | 2,920 | 2,190 | 3,910 | 7,160 | 18,500 | 15,700 | 5,980 | 2,190 | 1,040 | 1,540 |

*Daily discharge, in second-feet, of Clearwater River at Kamiah, Idaho, for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 1,660 | 1,910 | 2,770 | 2,470 | 3,730 | 7,810 | 23,200 | 15,700 | 5,710 | 2,050 | 1,040 | 1,660 |
| 17 | 1,660 | 2,190 | 2,920 | 2,470 | 3,730 | 8,480 | 29,600 | 16,200 | 5,450 | 1,910 | 1,320 | 1,780 |
| 18 | 1,540 | 2,330 | 3,080 | 2,620 | 3,560 | 7,810 | 33,800 | 18,500 | 5,450 | 1,910 | 2,050 | 1,910 |
| 19 | 1,660 | 2,330 | 2,770 | 2,620 | 3,400 | 7,160 | 35,900 | 14,400 | 5,200 | 1,910 | 2,470 | 2,190 |
| 20 | 1,660 | 2,190 | 2,770 | 2,330 | 3,400 | 6,850 | 33,100 | 27,000 | 5,980 | 1,910 | 2,190 | 2,050 |
| 21 | 1,660 | 2,050 | 2,620 | 2,190 | 3,240 | 6,550 | 29,600 | 32,400 | 6,550 | 1,910 | 2,190 | 1,910 |
| 22 | 1,660 | 2,050 | 2,620 | 2,330 | 3,400 | 6,550 | 27,000 | 25,600 | 5,710 | 2,190 | 1,780 | 1,780 |
| 23 | 1,540 | 1,910 | 3,560 | 2,050 | 3,240 | 7,810 | 23,200 | 22,200 | 4,960 | 1,910 | 1,540 | 1,910 |
| 24 | 1,660 | 1,430 | 3,910 | 2,050 | 3,080 | 9,180 | 20,600 | 20,600 | 4,510 | 1,780 | 1,320 | 2,050 |
| 25 | 1,660 | 1,430 | 6,260 | 1,910 | 3,400 | 8,480 | 20,000 | 20,000 | 4,300 | 1,540 | 1,320 | 1,910 |
| 26 | 2,190 | 1,780 | 5,450 | 1,910 | 3,240 | 7,480 | 21,100 | 16,600 | 4,100 | 1,430 | 1,220 | 1,780 |
| 27 | 2,190 | 2,050 | 4,730 | 1,660 | 3,240 | 7,160 | 25,000 | 14,800 | 3,910 | 1,430 | 1,220 | 1,910 |
| 28 | 3,910 | 2,050 | 4,730 | 1,430 | 3,240 | 6,550 | 27,600 | 14,800 | 3,730 | 1,320 | 1,130 | 1,910 |
| 29 | 5,200 | 2,050 | 3,400 | 1,910 | ------- | 6,260 | 32,400 | 14,800 | 3,730 | 1,320 | 1,220 | 2,050 |
| 30 | 3,730 | 2,190 | 2,920 | 2,470 | ------- | 5,710 | 35,200 | 14,400 | 3,560 | 1,430 | 1,320 | 2,050 |
| 31 | 3,240 | ------- | 2,770 | 2,330 | ------- | 5,710 | -------- | 14,000 | -------- | 1,320 | 1,780 | ------ |

*Monthly discharge of Clearwater River at Kamiah, Idaho, for the year ending September 30, 1926*

[Drainage area, 4,850 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 5,200 | 1,540 | 2,110 | 0.435 | 0.50 | 130,000 |
| November | 2,920 | 1,430 | 2,090 | .431 | .48 | 124,000 |
| December | 6,260 | 2,330 | 3,230 | .666 | .77 | 199,000 |
| January | 3,400 | 1,430 | 2,290 | .472 | .54 | 141,000 |
| February | 7,160 | 2,050 | 3,790 | .781 | .81 | 210,000 |
| March | 9,180 | 3,910 | 5,990 | 1.24 | 1.43 | 368,000 |
| April | 35,900 | 4,730 | 18,100 | 3.73 | 4.16 | 1,080,000 |
| May | 35,900 | 14,000 | 20,000 | 4.12 | 4.75 | 1,230,000 |
| June | 12,300 | 3,560 | 6,940 | 1.43 | 1.60 | 413,000 |
| July | 3,910 | 1,320 | 2,360 | .487 | .56 | 145,000 |
| August | 2,470 | 1,040 | 1,400 | .289 | .33 | 86,100 |
| September | 3,240 | 1,540 | 2,020 | .416 | .46 | 120,000 |
| The year | 35,900 | 1,040 | 5,860 | 1.21 | 16.39 | 4,250,000 |

### CLEARWATER RIVER AT SPALDING, IDAHO

LOCATION.—In NE. ¼ sec. 22, T. 36 N., R. 4 W., at highway bridge just above Lapwai Creek, a quarter of a mile northeast of Spalding post office at Joseph Junction, Nez Perce County, and 12 miles above mouth of river.

RECORDS AVAILABLE.—March 16 to September 30, 1926.

DRAINAGE AREA.—9,570 square miles.

GAGE.—Vertical staff attached to concrete pier and abutment on right bank of highway bridge; installed September 1, 1926; read by Charles Sower and F. E. Copenspire. Prior to September 1, 1926, gage readings made from temporary staff at present site and from reference point on bridge; corrected to present datum.

DISCHARGE MEASUREMENTS.—Made from highway bridges at Spalding and Lewiston, and from cable six-tenths of a mile below gage. Measurements include flow of Lapwai Creek which enters between gage and control.

CHANNEL AND CONTROL.—Bed composed of boulders and gravel; permanent. One channel at all stages. Control formed by well-defined riffle 1 mile below gage.

EXTREMES OF DISCHARGE.—Maximum stage and discharge during period of record occurred on April 19 when gage was not read; minimum stage, 0.4 foot at 5 p. m. August 16 and 9 a. m. August 17 (discharge, 2,020 second-feet).

ICE.—Stage-discharge relation affected by ice during severe winters.

DIVERSIONS.—None.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined between 2,000 and 110,000 second-feet as defined by 1927 discharge measurements. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

*Discharge measurements of Clearwater River at Spalding, Idaho, during the years ending September 30, 1924 and 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| 1924 | *Feet* | *Sec.-ft.* | 1926 | *Feet* | *Sec.-ft.* | 1926 | *Feet* | *Sec.-ft.* |
| Aug. 19 | [a] 0.96 | 2,830 | Mar. 16 | 6.21 | 18,200 | May 14 | 7.34 | 23,700 |
| Aug. 21 | [a] 1.58 | 4,040 | Mar. 21 | 5.31 | 14,600 | July 7 | 2.08 | 5,510 |
| Sept. 13 | [a] .51 | 2,180 | May 11 | 7.09 | 23,900 | Sept. 5 | 1.37 | 3,610 |

[a] Determined from curve of gage-height relation between Spalding gage and 18th Street highway bridge at Lewiston to which these measurements were referred when made.

*Daily discharge, in second-feet, of Clearwater River at Spalding, Idaho, for the year ending September 30, 1926*

| Day | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|
| 1 | | | | | 5,910 | 2,450 | 6,950 |
| 2 | | | | | 6,420 | 2,450 | 5,660 |
| 3 | | | | | 6,160 | 2,450 | 4,950 |
| 4 | | | | | 5,420 | 2,450 | 4,070 |
| 5 | | | | | 5,340 | 2,300 | 3,480 |
| 6 | | 13,400 | | | 5,260 | 2,300 | 3,290 |
| 7 | | 13,000 | | | 5,180 | 2,300 | 3,110 |
| 8 | | 13,000 | | | 4,950 | 2,300 | 3,480 |
| 9 | | 13,800 | | | 5,180 | 2,160 | 3,870 |
| 10 | | 15,000 | | | 5,420 | 2,300 | 3,670 |
| 11 | | | 24,100 | | 4,950 | 2,300 | 3,290 |
| 12 | | | | | 4,500 | 2,160 | 3,290 |
| 13 | | | | | 4,280 | 2,160 | 3,290 |
| 14 | | | 25,200 | | 4,070 | 2,160 | 2,940 |
| 15 | | | | | 4,070 | 2,160 | 2,940 |
| 16 | 19,400 | | | | 3,870 | 2,160 | 2,770 |
| 17 | 19,900 | | | | 3,670 | 2,020 | 3,110 |
| 18 | | | | | 3,480 | 2,160 | 3,870 |
| 19 | | | | | 3,290 | 2,940 | 3,870 |
| 20 | | | | | 3,290 | 4,500 | 3,670 |
| 21 | 15,400 | | | | 3,110 | 4,070 | 3,290 |
| 22 | | | | | 3,110 | 3,290 | 3,290 |
| 23 | | | | | 3,110 | 2,940 | 5,180 |
| 24 | | | | | 3,110 | 2,610 | 4,950 |
| 25 | | | | 7,780 | 3,110 | 2,450 | 4,070 |
| 26 | | | | 7,220 | 2,940 | 2,300 | 3,670 |
| 27 | | | | 6,160 | 2,770 | 2,300 | 3,670 |
| 28 | | | | 6,680 | 2,610 | 2,450 | 3,670 |
| 29 | | | | 6,160 | 2,610 | 2,450 | 3,670 |
| 30 | | | | 6,160 | 2,610 | 2,300 | 3,670 |
| 31 | | | | | 2,610 | 3,110 | |

NOTE.—Discharge interpolated July 5 and 6.

*Monthly discharge of Clearwater River at Spalding, Idaho, for the year ending September 30, 1926*

[Drainage area, 9,570 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| April 6–10 | 15,000 | 13,000 | 13,600 | 1.42 | 0.26 | 135,000 |
| June 25–30 | 7,780 | 6,160 | 6,690 | .699 | .16 | 79,600 |
| July | 6,420 | 2,610 | 4,080 | .426 | .49 | 251,000 |
| August | 4,500 | 2,020 | 2,530 | .264 | .30 | 156,000 |
| September | 6,950 | 2,770 | 3,820 | .399 | .45 | 227,000 |

### CLEARWATER RIVER NEAR LEWISTON, IDAHO

LOCATION.—In NE. ¼ sec. 28, T. 36 N., R. 5 W., three-eighths mile below concrete diversion dam under construction by Inland Power & Light Co., 3 miles east of the Eighteenth Street highway bridge at Lewiston, Nez Perce County, and 4 miles above mouth of river.

RECORDS AVAILABLE.—August 23, 1910, to October 31, 1913; October 2, 1924, to September 30, 1926.

DRAINAGE AREA.—9,640 square miles.

GAGE.—Stevens continuous water-stage recorder on right bank at former Central Ferry site; reinstalled October 2, 1924; inspected by employees of Inland Power & Light Co. Zero of present gage at elevation 733.33 feet above mean sea level, United States Geological Survey datum from bench marks at Lewiston described in Bulletin 567.

DISCHARGE MEASUREMENTS.—Made from highway bridge at Lewiston and Spalding, and from cable, 8 miles upstream at Spalding.

CHANNEL AND CONTROL.—Bed composed of boulders and gravel. Two channels at extremely high stages. Control formed by well-defined gravel and boulder riffle; practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, from water-stage recorder, 13.36 feet from 3 to 4 p. m. April 19 (discharge, 62,400 second-feet); minimum stage recorded, 2.4 feet August 14 and 16 (discharge, 2,030 second-feet).

1910–1913, 1924–1926: Maximum stage recorded, 16.0 feet (17.3 feet present datum) May 28, 1913 (discharge, 98,800 second-feet); minimum stage recorded, that of August 14 and 16, 1926. Actual maximum stage and discharge on May 28, 1913, was probably somewhat higher than was recorded as indicated by comparison with gage heights obtained at city of Lewiston pumping plant.

Crest elevation during flood of June, 1894, was 20.8 feet, present gage datum (discharge, about 136,000 second-feet) as determined by J. C. Stevens, who referred the high-water mark to the Central Ferry gage during investigations made in 1924.

ICE.—Stage-discharge relation affected by ice only for short periods during severe winters.

DIVERSIONS.—Practically none.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined between 2,000 and 50,000 second-feet, above which it is extended. Operation of water-stage recorder satisfactory except for short periods. Daily discharge ascertained by applying to rating table mean daily gage height determined by inspection of recorder graph except as indicated in footnote to table of daily discharge. Records good except those for estimated periods, which are fair.

COOPERATION.—Gage-height record furnished by Inland Power & Light Co.

*Discharge measurements of Clearwater River near Lewiston, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 16 | 7.56 | 18,200 | May 11 | 8.44 | 23,900 | July 7 | 3.92 | 5,510 |
| Mar. 21 | 6.82 | 14,600 | May 14 | 8.64 | 23,700 | Sept. 5 | 3.26 | 3,610 |

*Daily discharge, in second-feet, of Clearwater River near Lewiston, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3,100 | 4,920 | 4,140 | 5,060 | 4,650 | 10,000 | 11,700 | 53,500 | | 5,910 | 2,580 | 6,920 |
| 2 | | 4,390 | 5,470 | 4,390 | 4,520 | 10,400 | 11,000 | 48,300 | | 6,410 | 2,580 | 5,670 |
| 3 | 3,040 | 4,020 | 7,350 | 3,670 | 4,650 | 10,700 | 10,700 | 44,000 | 17,000 | 6,160 | 2,500 | 4,960 |
| 4 | 2,940 | 3,900 | 6,320 | 4,260 | 5,060 | 11,400 | 11,700 | 42,400 | | 5,430 | 2,500 | 4,020 |
| 5 | 2,850 | 3,670 | 5,610 | 5,470 | 8,110 | 11,700 | 12,400 | 46,600 | | 5,350 | 2,420 | 3,560 |
| 6 | 2,760 | 3,340 | 5,750 | 6,180 | 17,200 | 11,400 | 13,100 | 40,700 | | 5,270 | 2,260 | 3,140 |
| 7 | 2,850 | 3,140 | 6,320 | 6,320 | | 10,400 | 13,100 | 35,200 | | 5,060 | 2,260 | 3,040 |
| 8 | 3,240 | 2,850 | 5,890 | 6,030 | 18,000 | 10,000 | 13,100 | 29,900 | 14,000 | 4,920 | 2,260 | 3,240 |
| 9 | 3,140 | 2,850 | 5,470 | 5,060 | | 10,000 | 13,700 | 27,100 | | 5,330 | 2,100 | 3,900 |
| 10 | 3,040 | 3,140 | 4,920 | 4,260 | | 9,690 | 14,600 | 24,500 | | 5,610 | 2,260 | 3,670 |
| 11 | 2,850 | 3,670 | 4,780 | 4,390 | 15,000 | 9,690 | 17,200 | 23,300 | | 4,920 | 2,260 | 3,240 |
| 12 | 2,850 | 4,140 | 7,050 | 4,260 | | 10,000 | 21,500 | 22,700 | | 4,520 | 2,180 | 3,240 |
| 13 | 2,760 | 4,390 | 8,260 | 3,780 | 12,400 | 12,400 | 27,100 | 23,300 | 10,500 | 4,260 | 2,100 | 3,240 |
| 14 | 2,670 | 4,140 | 7,350 | 3,340 | 11,000 | 15,900 | 29,200 | 24,500 | | 4,020 | 2,030 | 2,940 |
| 15 | 2,580 | 3,900 | 6,460 | 3,560 | 9,690 | 17,200 | 32,900 | 25,200 | | 3,780 | 2,100 | 2,760 |
| 16 | 2,580 | 3,670 | 5,890 | 4,650 | 9,370 | 18,200 | 39,900 | 25,200 | | 3,670 | 2,030 | 2,760 |
| 17 | 2,500 | 3,670 | 5,610 | 4,780 | 9,370 | 18,200 | 50,000 | 25,200 | 9,500 | 3,560 | 2,180 | 2,940 |
| 18 | 2,500 | 4,020 | 5,330 | 4,920 | 9,050 | 17,700 | 56,100 | 29,200 | | 3,340 | 2,340 | 3,780 |
| 19 | 2,420 | 4,260 | 5,470 | 4,650 | 8,730 | 16,800 | 59,700 | 31,400 | | 3,140 | 3,240 | 3,780 |
| 20 | 2,420 | 4,020 | 5,190 | 4,390 | 8,730 | 15,400 | 57,900 | 39,100 | | 3,040 | 4,390 | 3,560 |
| 21 | 2,420 | 3,670 | 4,920 | 4,140 | 9,050 | 14,600 | 51,700 | 46,600 | 12,000 | 2,940 | 4,140 | 3,240 |
| 22 | 2,420 | 3,340 | 5,060 | 4,020 | 9,050 | 14,200 | 47,400 | 37,500 | | 2,850 | 3,340 | 3,140 |
| 23 | 2,420 | 3,240 | 6,610 | 3,900 | 9,050 | 15,400 | 44,000 | 31,400 | | 2,940 | 2,940 | 5,190 |
| 24 | 2,420 | 2,850 | 14,600 | 3,780 | 8,730 | 18,200 | 38,400 | 29,900 | 8,500 | 3,040 | 2,760 | 4,960 |
| 25 | 2,420 | 2,500 | 13,900 | 3,780 | 9,690 | 17,700 | 32,900 | 29,200 | 7,710 | 3,040 | 2,500 | 4,080 |
| 26 | 3,040 | 3,140 | 11,400 | 3,670 | 9,050 | 15,900 | 35,200 | 24,500 | 7,180 | 2,940 | 2,420 | 3,670 |
| 27 | 3,670 | 3,780 | 9,690 | 3,450 | 9,050 | 15,000 | 39,100 | 23,300 | 6,160 | 2,850 | 2,340 | 3,670 |
| 28 | 6,900 | 3,240 | 8,260 | 3,340 | 9,690 | 13,900 | 44,000 | 21,500 | 6,660 | 2,670 | 2,420 | 3,670 |
| 29 | 7,650 | 3,040 | 7,200 | 3,450 | ------- | 12,800 | 48,300 | 20,900 | 6,160 | 2,670 | 2,420 | 3,670 |
| 30 | 7,050 | 3,780 | 6,180 | 4,390 | ------- | 12,000 | 51,700 | 20,400 | 6,160 | 2,670 | 2,420 | 3,670 |
| 31 | 5,470 | ------- | 5,330 | 5,060 | ------- | 11,700 | ------- | 20,000 | ------- | 2,670 | 3,140 | ------- |

NOTE.—Because of missing gage heights discharge estimated by comparison with flow at Kamiah Oct. 1, 2, Feb. 7-12, Apr. 24, May 31, June. 1-24; used daily flow as determined at Spalding station, which is practically the same as at Lewiston, June 25-30, July 1-6, Aug. 7, 8, Sept. 1-3, and 23-30. Braced figures show mean discharge for periods indicated.

*Monthly discharge of Clearwater River near Lewiston, Idaho, for the year ending September 30, 1926*

[Drainage area, 9,640 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 7,650 | 2,420 | 3,290 | 0.341 | 0.39 | 202,000 |
| November | 4,920 | 2,500 | 3,620 | .376 | .42 | 215,000 |
| December | 14,600 | 4,140 | 6,830 | .709 | .82 | 420,000 |
| January | 6,320 | 3,340 | 4,400 | .456 | .53 | 271,000 |
| February | | 4,520 | 10,500 | 1.09 | 1.14 | 583,000 |
| March | 18,200 | 9,690 | 13,500 | 1.40 | 1.61 | 830,000 |
| April | 59,700 | 10,700 | 31,600 | 3.28 | 3.66 | 1,880,000 |
| May | 53,500 | 20,000 | 31,200 | 3.24 | 3.74 | 1,920,000 |
| June | | 6,160 | 11,300 | 1.17 | 1.30 | 672,000 |
| July | 6,410 | 2,670 | 4,030 | .418 | .48 | 248,000 |
| August | 4,390 | 2,030 | 2,560 | .266 | .31 | 157,000 |
| September | 6,920 | 2,760 | 3,780 | .392 | .44 | 225,000 |
| The year | 59,700 | 2,030 | 10,500 | 1.09 | 14.84 | 7,620,000 |

### SOUTH FORK OF CLEARWATER RIVER NEAR GRANGEVILLE, IDAHO

LOCATION.—In SE. ¼ NW. ¼ sec. 30, T. 30 N., R. 4 E. Boise meridian, below power house of Inland Power & Light Co.,[2] 3 miles east of Mount Idaho, 6 miles southeast of Grangeville, Idaho County, and 19 miles above mouth.

DRAINAGE AREA.—865 square miles (revised; measured on Forest Service map).

RECORDS AVAILABLE.—November 14, 1910, to July 31, 1911; October 9 to November 18, 1911; January 4, 1912, to September 30, 1916; and April 1, 1923, to September 30, 1926.

GAGE.—Vertical and inclined staff on right bank about 150 feet below power house; installed January 8, 1924; read by power-plant operators.

DISCHARGE MEASUREMENTS.—Made from cable one-fourth mile below gage or by wading.

CHANNEL AND CONTROL.—Bed of large boulders; shifts at high stages. Gradient steep. Channel curved at gage. Left bank subject to overflow during extremely high water.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.55 feet at 5 p. m. April 19 (discharge, 4,440 second-feet); minimum stage recorded, 2.64 feet at 5 p. m. August 16 (discharge, 66 second-feet).

1910–1916, 1923–1926: Maximum stage recorded, 9.7 feet May 30, 1912 (discharge, 9,830 second-feet); minimum discharge, 40 second-feet, September 24, 1924.

ICE.—Stage-discharge relation affected by ice during severe winters.

DIVERSIONS.—Low-water flow diverted through power plant. All water diverted for power purposes returned to river above gage.

REGULATION.—Operation of power plant causes regulation.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined above 130 second-feet. Gage read to hundredths twice daily. Two readings daily may not be sufficient from which to determine daily mean stage during periods of considerable diurnal fluctuation. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

COOPERATION.—Gage-height record furnished by Inland Power & Light Co.

[2] Formerly Grangeville Electric Light & Power Co.

*Discharge measurements of South Fork of Clearwater River near Grangeville, Idaho, during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Mar. 18 | 5.08 | 1,420 | July 5 | 3.69 | 505 |
| May 13 | 5.28 | 1,530 | Aug. 10 | 2.87 | 170 |

*Daily discharge, in second-feet, of South Fork of Clearwater River near Grangeville, Idaho, for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 255 | 302 | 186 | 164 | 200 | 395 | 935 | 3,000 | 1,480 | 715 | 151 | 352 |
| 2 | 200 | 298 | 264 | 154 | 186 | 420 | 838 | 2,620 | 1,480 | 630 | 171 | 356 |
| 3 | 227 | 284 | 239 | 212 | 178 | 470 | 805 | 2,500 | 1,310 | 520 | 120 | 320 |
| 4 | 204 | 280 | 235 | 227 | 200 | 548 | 870 | 2,500 | 1,310 | 470 | 134 | 264 |
| 5 | 193 | 212 | 264 | 251 | 220 | 575 | 935 | 2,620 | 1,310 | 470 | 134 | 223 |
| 6 | 204 | 178 | 420 | 316 | 243 | 520 | 1,150 | 2,270 | 1,230 | 445 | 141 | 200 |
| 7 | 276 | 148 | 361 | 289 | 495 | 495 | 1,310 | 2,050 | 1,150 | 420 | 117 | 251 |
| 8 | 294 | 164 | 302 | 235 | 602 | 520 | 1,310 | 1,950 | 1,080 | 445 | 114 | 338 |
| 9 | 235 | 247 | 200 | 200 | 575 | 575 | 1,400 | 1,850 | 1,000 | 445 | 161 | 243 |
| 10 | 189 | 231 | 189 | 186 | 548 | 575 | 1,570 | 1,750 | 902 | 395 | 157 | 208 |
| 11 | 186 | 231 | 325 | 220 | 575 | 575 | 1,850 | 1,660 | 870 | 330 | 138 | 239 |
| 12 | 186 | 216 | 268 | 268 | 520 | 658 | 2,380 | 1,660 | 805 | 348 | 114 | 200 |
| 13 | 178 | 220 | 325 | 164 | 470 | 1,000 | 2,620 | 1,570 | 745 | 334 | 138 | 189 |
| 14 | 161 | 227 | 294 | 178 | 370 | 1,400 | 2,740 | 1,570 | 805 | 307 | 144 | 175 |
| 15 | 154 | 204 | 264 | 231 | 420 | 1,480 | 3,000 | 1,480 | 1,000 | 316 | 93 | 171 |
| 16 | 151 | 212 | 276 | 216 | 420 | 1,660 | 3,550 | 1,570 | 870 | 280 | 98 | 171 |
| 17 | 154 | 212 | 264 | 220 | 370 | 1,660 | 3,990 | 1,850 | 745 | 272 | 117 | 255 |
| 18 | 148 | 220 | 316 | 231 | 370 | 1,400 | 4,140 | 1,850 | 745 | 255 | 171 | 302 |
| 19 | 157 | 212 | 294 | 204 | 366 | 1,310 | 3,990 | 1,750 | 838 | 231 | 330 | 264 |
| 20 | 134 | 186 | 284 | 193 | 370 | 1,310 | 3,990 | 3,130 | 1,310 | 223 | 289 | 223 |
| 21 | 144 | 171 | 276 | 168 | 370 | 1,150 | 3,690 | 3,000 | 1,000 | 235 | 208 | 216 |
| 22 | 144 | 131 | 343 | 216 | 370 | 1,310 | 3,550 | 2,500 | 805 | 227 | 157 | 196 |
| 23 | 144 | 103 | 602 | 180 | 343 | 1,480 | 3,000 | 2,380 | 745 | 231 | 171 | 264 |
| 24 | 128 | 131 | 805 | 186 | 348 | 1,480 | 2,740 | 2,500 | 658 | 212 | 157 | 255 |
| 25 | 154 | 200 | 630 | 164 | 334 | 1,310 | 2,620 | 2,270 | 630 | 204 | 131 | 264 |
| 26 | 204 | 212 | 520 | 144 | 334 | 1,230 | 2,740 | 2,050 | 602 | 193 | 131 | 264 |
| 27 | 223 | 182 | 352 | 141 | 348 | 1,150 | 2,740 | 1,850 | 495 | 178 | 111 | 284 |
| 28 | 715 | 182 | 280 | 175 | 370 | 1,080 | 2,740 | 1,850 | 520 | 178 | 138 | 280 |
| 29 | 1,000 | 196 | 272 | 216 | ------ | 935 | 3,000 | 1,750 | 470 | 178 | 109 | 284 |
| 30 | 548 | 175 | 247 | 196 | ------ | 935 | 3,000 | 1,660 | 495 | 168 | 148 | 294 |
| 31 | 420 | ------ | 227 | 189 | ------ | 1,000 | ------ | 1,480 | ------ | 168 | 330 | ------ |

*Monthly discharge of South Fork of Clearwater River near Grangeville, Idaho, for the year ending September 30, 1926*

[Drainage area, 865 square miles]

| Month | Discharge in second-feet | | | | Run-off | |
|---|---|---|---|---|---|---|
| | Maximum | Minimum | Mean | Per square mile | Inches | Acre-feet |
| October | 1,000 | 128 | 249 | 0.288 | 0.33 | 15,300 |
| November | 302 | 103 | 206 | .238 | .27 | 12,300 |
| December | 805 | 186 | 327 | .378 | .44 | 20,100 |
| January | 316 | 141 | 205 | .237 | .27 | 12,600 |
| February | 602 | 178 | 376 | .435 | .45 | 20,900 |
| March | 1,660 | 395 | 987 | 1.14 | 1.31 | 60,700 |
| April | 4,140 | 805 | 2,440 | 2.82 | 3.15 | 145,000 |
| May | 3,130 | 1,480 | 2,080 | 2.40 | 2.77 | 128,000 |
| June | 1,480 | 470 | 914 | 1.06 | 1.18 | 54,400 |
| July | 715 | 168 | 323 | .373 | .43 | 19,900 |
| August | 330 | 93 | 156 | .180 | .21 | 9,590 |
| September | 356 | 171 | 252 | .291 | .32 | 15,000 |
| The year | 4,140 | 93 | 709 | .820 | 11.13 | 514,000 |

### TUCANNON RIVER NEAR POMEROY, WASH.

LOCATION.—In sec. 13, T. 11 N., R. 40 E., at highway bridge at abandoned post office of Marengo, 9 miles southwest of Pomeroy, Columbia County, 14 miles above Petaha Creek, and 17½ miles north of Dayton.

DRAINAGE AREA.—109 square miles (measured on Umatilla National Forest map).

RECORDS AVAILABLE.—August 31, 1913, to June 30, 1915; March 1, 1924, to September 30, 1926.

GAGE.—Vertical staff in two sections on downstream corner of left abutment; read by I. O. Hovrud.

DISCHARGE MEASUREMENTS.—Made by wading near gage.

CHANNEL AND CONTROL.—Bed composed of gravel. Banks not subject to overflow. Control formed by riffle 75 feet below gage; shifting at high water. Stage of zero flow determined September 8, 1924, gage height 2.97 feet, ±0.1 foot.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.95 feet on February 8 (discharge, 305 second-feet); minimum stage, 4.03 feet July 31 and August 3–7 (discharge, 42 second-feet).

1913–1915, 1924–1926: Maximum stage recorded 5.35 feet at 8.30 a. m. February 5, 1925 (discharge, 642 second-feet); minimum stage, 1.20 feet at 7.30 a. m. December 24, 1914 (discharge, 25 second-feet).

ICE.—Stage-discharge relation seriously affected by ice during severe winters.

DIVERSION.—Several small diversions for irrigation above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed gradually October 1 to February 2; not affected by ice. Rating curve fairly well defined. Gage read once daily to hundredths. Daily discharge ascertained by applying daily gage height to rating table, except shifting-control method used October 1 to February 2. Records good.

*Discharge measurements of Tucannon River near Pomeroy, Wash., during the year ending September 30, 1926*

| Date | Gage height | Discharge | Date | Gage height | Discharge |
|---|---|---|---|---|---|
| | *Feet* | *Sec.-ft.* | | *Feet* | *Sec.-ft.* |
| Feb. 3 | 4.27 | 81 | July 15 | 4.06 | 45.7 |
| Apr. 5 | 4.42 | 118 | Sept. 20 | 4.13 | 55 |
| May 26 | 4.35 | 96 | | | |

*Daily discharge, in second-feet, of Tucannon River near Pomeroy, Wash., for the year ending September 30, 1926*

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 66 | 71 | 81 | 79 | 79 | 129 | 115 | 193 | 83 | 54 | 43 | 56 |
| 2 | 66 | 71 | 91 | 76 | 81 | 129 | 110 | 167 | 81 | 54 | 43 | 54 |
| 3 | 66 | 71 | 80 | 79 | 83 | 129 | 110 | 167 | 77 | 54 | 42 | 51 |
| 4 | 64 | 71 | 76 | 72 | 87 | 129 | 115 | 167 | 71 | 53 | 42 | 51 |
| 5 | 64 | 69 | 78 | 100 | 110 | 129 | 115 | 155 | 67 | 51 | 42 | 51 |
| 6 | 64 | 69 | 78 | 89 | 184 | 126 | 121 | 152 | 67 | 48 | 42 | 54 |
| 7 | 66 | 68 | 76 | 80 | 218 | 121 | 121 | 152 | 67 | 48 | 42 | 62 |
| 8 | 66 | 68 | 76 | 80 | 305 | 115 | 124 | 143 | 62 | 48 | 43 | 62 |
| 9 | 66 | 70 | 76 | 78 | 236 | 115 | 132 | 137 | 62 | 48 | 43 | 59 |
| 10 | 64 | 70 | 76 | 78 | 258 | 110 | 132 | 126 | 62 | 50 | 44 | 56 |
| 11 | 64 | 70 | 76 | 78 | 245 | 105 | 161 | 121 | 62 | 50 | 44 | 56 |
| 12 | 66 | 79 | 73 | 78 | 218 | 103 | 158 | 110 | 62 | 48 | 44 | 54 |
| 13 | 68 | 75 | 73 | 76 | 200 | 115 | 161 | 110 | 61 | 48 | 44 | 54 |
| 14 | 68 | 70 | 73 | 74 | 177 | 129 | 164 | 110 | 73 | 48 | 44 | 54 |
| 15 | 68 | 70 | 73 | 80 | 164 | 137 | 180 | 105 | 81 | 46 | 46 | 56 |

*Daily discharge, in second-feet, of Tucannon River near Pomeroy, Wash., for the year ending September 30, 1926*—Continued

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 65 | 70 | 73 | 78 | 152 | 152 | 207 | 103 | 77 | 47 | 46 | 57 |
| 17 | 65 | 70 | 73 | 116 | 137 | 149 | 222 | 110 | 77 | 44 | 48 | 57 |
| 18 | 65 | 70 | 73 | 84 | 132 | 143 | 229 | 105 | 71 | 44 | 54 | 59 |
| 19 | 64 | 70 | 71 | 78 | 124 | 137 | 222 | 105 | 81 | 46 | 51 | 57 |
| 20 | 64 | 68 | 71 | 82 | 124 | 129 | 225 | 108 | 98 | 46 | 51 | 57 |
| 21 | 63 | 68 | 81 | 78 | 126 | 124 | 200 | 110 | 83 | 47 | 51 | 56 |
| 22 | 63 | 68 | 99 | 78 | 132 | 121 | 184 | 108 | 73 | 47 | 48 | 61 |
| 23 | 63 | 68 | 113 | 78 | 124 | 121 | 177 | 108 | 67 | 47 | 48 | 87 |
| 24 | 63 | 68 | 121 | 78 | 124 | 124 | 167 | 105 | 67 | 47 | 47 | 71 |
| 25 | 63 | 68 | 124 | 77 | 124 | 121 | 161 | 98 | 64 | 47 | 47 | 67 |
| 26 | 65 | 68 | 127 | 75 | 124 | 118 | 161 | 98 | 54 | 46 | 46 | 64 |
| 27 | 67 | 68 | 121 | 73 | 126 | 110 | 167 | 96 | 54 | 46 | 48 | 62 |
| 28 | 80 | 70 | 101 | 75 | 126 | 105 | 177 | 92 | 54 | 46 | 47 | 59 |
| 29 | 80 | 70 | 96 | 77 | ------- | 110 | 184 | 89 | 54 | 44 | 47 | 61 |
| 30 | 73 | 76 | 87 | 79 | ------- | 110 | 200 | 87 | 51 | 43 | 48 | 61 |
| 31 | 73 | ------- | 81 | 77 | ------- | 115 | ------- | 85 | ------- | 42 | 51 | ------- |

*Monthly discharge of Tucannon River near Pomeroy, Wash., for the year ending September 30, 1926*

| Month | Discharge in second-feet | | | Run-off in acre-feet |
|---|---|---|---|---|
| | Maximum | Minimum | Mean | |
| October | 80 | 63 | 66.5 | 4,090 |
| November | 79 | 68 | 70.1 | 4,170 |
| December | 127 | 71 | 86.1 | 5,290 |
| January | 116 | 72 | 80.0 | 4,920 |
| February | 305 | 79 | 154 | 8,550 |
| March | 152 | 103 | 123 | 7,560 |
| April | 229 | 110 | 163 | 9,700 |
| May | 193 | 85 | 120 | 7,380 |
| June | 98 | 51 | 68.8 | 4,090 |
| July | 54 | 42 | 47.6 | 2,930 |
| August | 54 | 42 | 46.0 | 2,830 |
| September | 87 | 51 | 58.9 | 3,500 |
| The year | 305 | 42 | 89.9 | 65,000 |

## MISCELLANEOUS DISCHARGE MEASUREMENTS

Discharge measurements of streams in the Snake River Basin at points other than regular gaging station, made during the year ending September 30, 1926, are listed in the following table:

*Miscellaneous discharge measurements in Snake River Basin during the year ending September 30, 1926*

| Date | Stream | Tributary to or diverting from— | Locality | Gage height | Discharge |
|---|---|---|---|---|---|
| | | | | *Feet* | *Sec.-ft.* |
| July 28 | Conant Creek Canal | Fall River | Diverts from Conant Creek in T. 8 N., R. 44 E. | ------- | 20.9 |
| Aug. 30 | do | do | do | ------- | 19.4 |
| July 28 | Squirrel Creek Canal | do | Diverts from Squirrel Creek in T. 8 N., R. 44 E. | ------- | 3.44 |
| Aug. 30 | do | do | do | ------- | 5.42 |
| Nov. 4 | Teton River | Snake River | In T. 7 N., R. 43 E., at proposed site of Samuels Dam. | ------- | 249 |
| Aug. 30, 31. | Aggregate surface inflow. | do | Between Shelley and Blackfoot Bridge gaging stations. | ------- | 7.45 |
| 30, 31 | do | do | Between Blackfoot Bridge and Clough gaging stations. | ------- | 14.2 |
| May 26 | Bannock Jim Slough | do | At head, in NE. ¼ sec. 2, T. 4 N., R. 39 E. | 2.85 | 136 |
| June 9 | do | do | do | 2.62 | 90.8 |
| 18 | do | do | do | 2.37 | 49.5 |
| July 12 | do | do | do | 2.22 | 27.5 |
| 24 | do | do | do | 2.01 | 9.22 |
| Sept. 3 | do | do | do | 1.80 | 1.50 |

*Miscellaneous discharge measurements in Snake River Basin during the year ending September 30, 1926*—Continued

| Date | Stream | Tributary to or diverting from— | Locality | Gage height | Discharge |
|---|---|---|---|---|---|
| | | | | *Feet* | *Sec.-ft.* |
| Apr. 24 | Lowder Slough | Snake River | At head, in NE. ¼ sec. 20, T. 4 N., R. 40 E. | 1.87 | 54.1 |
| May 25 | do | do | do | 2.84 | 235 |
| June 10 | do | do | do | 2.47 | 151 |
| 21 | do | do | do | 1.80 | 45.4 |
| 25 | do | do | do | 2.28 | 127 |
| July 10 | do | do | do | 2.00 | 74.4 |
| 20 | do | do | do | 1.85 | 54.0 |
| Aug. 2 | do | do | do | 1.74 | 39.7 |
| 10 | do | do | do | 1.54 | 18.1 |
| 23 | do | do | do | (a) | .10 |
| Sept. 2 | do | do | At head, in NE. ¼ sec. 20, T. 4 N, R. 40 E. Idaho. | 1.42 | 11.5 |
| June 4 | Market Lake Springs | do | In T. 5 N., R. 37 E., near Roberts, Idaho. | ---- | 3.65 |
| 7 | do | do | do | .83 | 4.03 |
| 16 | do | do | do | .82 | 3.87 |
| July 1 | do | do | do | .88 | 3.20 |
| 13 | do | do | do | 1.07 | 5.44 |
| 23 | do | do | do | 1.02 | 3.09 |
| 31 | do | do | do | .96 | 2.52 |
| Aug. 12 | do | do | do | 1.02 | 3.19 |
| 23 | do | do | do | 1.00 | 2.85 |
| Sept. 4 | do | do | do | 1.03 | 2.86 |
| 16 | do | do | do | 1.02 | 2.4 |
| 17 | Blackfoot River | do | About sec. 9, T. 7 S., R. 42 E., at Swanson ranch, 1½ miles above flow line of Blackfoot-Marsh Reservoir and 7 miles south of Henry, Idaho. | 1.33 | 61.2 |
| Oct. 13 | do | do | In sec. 7, T. 2 S., R. 38 E., Bingham County. (See "Blackfoot River near Shelley, Idaho.") | 3.28 | 67.8 |
| June 17 | Little Blackfoot River. | Blackfoot River | Sec. 10, T. 6 S. R. 42 E., at bridge on Kirk ranch at Henry, Idaho. | 1.07 | 10.4 |
| 17 | Meadow Creek | do | Sec. 3, T. 6 S., R. 42 E., 1½ miles northeast of Henry, Idaho. | 1.67 | 14.2 |
| Oct. 1 | Camas Creek | Mud Lake | Sec. 19, T. 10 N., R. 38 E., at Jacoby ranch, 11 miles east of Dubois, Idaho. | ---- | 42.9 |
| 1 | do | do | NW. ¼ sec. 36, T. 7 N., R. 35 E., at highway bridge 5 miles southwest of Hamer, Idaho. | ---- | 96.4 |
| Mar. 20 | do | do | do | ---- | 201 |
| Apr. 4 | do | do | do | ---- | 60.6 |
| 23 | do | do | do | ---- | 154 |
| May 19 | do | do | do | ---- | 10.9 |
| 21 | do | do | do | ---- | 75.8 |
| June 19 | do | do | do | ---- | 31.4 |
| July 1 | do | do | do | ---- | 46.9 |
| 28 | do | do | do | ---- | 32.7 |
| Sept. 15 | do | do | do | ---- | 36.1 |
| Oct. 1 | Woods Woodie ditch | Diverts from Camas Creek. | 1 mile below head in sec. 26, T. 11 N., R. 38 E., 10 miles south of Kilgore, Idaho. | ---- | 2.9 |
| 1 | Jacoby ditch | do | One-fourth mile below head, in sec. 17, T. 10 N., R. 38 E., 11 miles east of Dubois, Idaho. | ---- | .5 |
| 2 | Hoffman ditch | do | Sec. 34, T. 9 N., R. 36 E., 4 miles north of Camas, Idaho. | ---- | 7.7 |
| 2 | Stoneburner ditch | do | About sec. 3, T. 8 N., R. 36 E., 3 miles north of Camas, Idaho. | ---- | e.8 |
| Mar. 17 | Spring Creek | Mud Lake | Jacketts ranch, sec. 28, T. 7 N., R. 35 E., 8 miles west of Hamer, Idaho. | ---- | 24.7 |
| Apr. 2 | do | do | do | ---- | 18.8 |
| 26 | do | do | do | ---- | 16.2 |
| May 19 | do | do | do | ---- | 14.0 |
| June 19 | do | do | do | ---- | 11.5 |

e Estimated.

*Miscellaneous discharge measurements in Snake River Basin during the year ending September 30, 1926*—Continued

| Date | Stream | Tributary to or diverting from— | Locality | Gage height | Discharge |
|---|---|---|---|---|---|
| | | | | *Feet* | *Sec.-ft.* |
| July 28 | Spring Creek | Mud Lake | Jacketts ranch, sec. 28, T. 7 N., R. 35 E., 8 miles west of Hamer, Idaho. | | 8.6 |
| Sept. 15 | do | do | do | | 12.2 |
| Oct. 3 | Lidy Hot Springs | | Sec. 2, T. 9 N., R. 33 E., 15 miles southwest of Dubois, Idaho. | | .7 |
| May 4 | Little Lost River | Snake River | Sec. 29, T. 10 N., R. 27 E., 32 miles northwest of Howe, Idaho. | 1.47 | 70.8 |
| 4 | do | do | Sec. 33, T. 9 N., R. 27 E., at Wagon Bridge 27 miles northwest of Howe, Idaho. | | 80.3 |
| 4 | Diversion canal | Diverts from Dry Creek. | Sec. 15, T. 10 N., R. 25 E., one-eighth mile below lower end of pipe line, 1 mile below Dry Creek Dam, 36 miles northwest of Howe, Idaho. | | 17.8 |
| 4 | Wet Creek | Little Lost River | Sec. 8, T. 9 N., R. 26 E., half a mile above Corral Creek, 30 miles northwest of Howe, Idaho. | | 15.0 |
| 4 | do | do | About sec. 4, T. 9 N., R. 27 E., half a mile above mouth and 27 miles northwest of Howe, Idaho. | | 16.3 |
| 4 | Squaw Creek | Wet Creek | Mouth in sec. 8, T. 9 N., R. 26 E., 30 miles northwest of Howe, Idaho. | | 2.8 |
| 4 | Williams Creek | Little Lost River | About sec. 9, T. 9 N., R. 27 E., 25 miles northwest of Howe, Idaho. | | *.7 |
| 5 | Badger Creek | do | Mouth, sec. 34, T. 9 N., R. 27 E., 24 miles northwest of Howe, Idaho. | | *1.6 |
| 5 | Spring Creek | do | Mouth, in about sec. 20, T. 7 N., R. 28 E., 16 miles northwest of Howe, Idaho. | | 28.5 |
| 5 | Teeny Creek | do | Mouth, about sec. 20, T. 7 N., R. 28 E., 15 miles northwest of Howe, Idaho. | | *4.0 |
| Oct. 24 | Blue Lakes outlet | Snake River | SW. ¼ SW. ¼ sec. 28, T. 9 S., R. 17 E., 200 feet below highway bridge, Blue Lakes ranch, 4 miles north of Twin Falls, Idaho. | 1.01 | 202 |
| Mar. 25 | do | do | do | .88 | 198 |
| May 3 | do | do | do | .86 | 195 |
| June 13 | Clear Lakes outlet | do | Sec. 1, T. 9 S., R. 14 E., 5 miles north of Buhl, Idaho. | 1.34 | 504 |
| 11 | Richfield Canal | Diverts from Big Wood River. | Sec. 29, T. 2 S., R. 18 E., 2 miles below Magic Dam, 16 miles northwest of Richfield, Idaho. | 3.62 | 599 |
| 11 | North Gooding Canal | do | At head, SW. ¼ sec. 15, T. 45 S., R. 18 E., 14 miles by road northeast of Shoshone, Idaho. | 2.90 | 245 |
| 10 | West Canal | Diverts from Little Wood River. | About sec. 31, T. 1 N., R. 21 E., 6 miles north of Carey, Idaho. | .62 | 51.3 |
| 10 | East Canal | do | About sec. 5, T. 1 S., R. 21 E., 5 miles north of Carey, Idaho. | 1.30 | 34.7 |
| Apr. 30 | Long Tom Creek | Canyon Creek | Sec. 30, T. 1 S., R. 8 E., at Road Ford half a mile above backwater of Long Tom Reservoir, 6 miles southwest of Bennett, Idaho. | | 2.7 |
| 30 | Willowdale Creek | Long Tom Creek | Sec. 35, T. 1 S., R. 7 E., 8 miles southwest of Bennett, Idaho. | | 1.3 |
| May 24 | Syrup Creek | Canyon Creek | Sec. 31, T. 1 S., R. 7 E., one-fourth mile above mouth, 12 miles southwest of Bennett, Idaho. | .30 | 2.2 |

* Estimated.

*Miscellaneous discharge measurements in Snake River Basin during the year ending September 30, 1926*—Continued

| Date | Stream | Tributary to or diverting from— | Locality | Gage height | Discharge |
|---|---|---|---|---|---|
| | | | | *Feet* | *Sec.-ft.* |
| Oct. 15 | Owyhee River | Snake River | In W. ½ sec. 24, T. 44 N., R. 54 E. at former gaging station one-eighth mile below Wild Horse dam site, 9 miles west of Gold Creek, Nev. | [b] 2.40 | 6.3 |
| May 26 | Ake No. 2 lateral | Mountain Home feeder canal. | Sec. 36, T. 2 S., R. 6 E., 5 miles north of Mountain Home, Idaho. | 1.49 | 5.4 |
| June 4 | Ake No. 1 lateral | do | do | | Dry. |
| July 2 | do | do | do | | [a] .05 |
| June 4 | Ake No. 2 lateral | do | do | | 4.1 |
| July 2 | do | do | do | | 4.1 |
| Oct. 16 | Jack Creek | South Fork of Owyhee River. | In sec. 35, T. 42 N., R. 52 E., at former gaging station, at R. M. Woodward ranch, 8 miles above confluence with South Fork of Owyhee River, and 12 miles northeast of Tuscarora, Nev. | .40 | 3.60 |
| May 10 | Lake Fork of Payette River. | North Fork of Payette River. | NW. ¼ NW. ¼ sec. 13, T. 18 N., R. 3 E. 600 feet below reservoir, 3 miles east of McCall, Idaho. | 1.41 | 174 |
| 27 | do | do | do | 1.46 | 180 |
| 28 | do | do | do | .20 | 24.1 |
| 28 | do | do | do | .74 | 87 |
| 28 | do | do | do | 1.12 | 152 |
| June 20 | do | do | do | .50 | 55 |
| July 26 | do | do | do | .84 | 103 |
| Sept. 9 | do | do | do | .30 | 35.6 |
| Apr. 28 | North Side Canal of Emmett Irrigation District. | Diverts from Payette River. | Black Canyon Dam, sec. 22, T. 7 N., R. 1 W., 5½ miles northeast of Emmett, Idaho. | 1.30 | 290 |
| 28 | South Side Canal of Emmett Irrigation District. | do | do | 8.89 | 95.9 |
| July 1 | do | do | do | 8.98 | 89.0 |
| 14 | do | do | do | 9.04 | 92.5 |
| Sept. 14 | do | do | do | 8.32 | 60.8 |
| May 7 | Mesa Orchards Canal | Diverts from Middle Fork of Weiser River. | Sec. 14, T. 15 N., R. 1 W., 900 feet above end of flume, 1¼ miles northeast of Mesa, Idaho. | .13 | 1.8 |
| 22 | do | do | do | .55 | 9.7 |
| June 18 | do | do | do | 1.10 | 23.1 |
| July 23 | do | do | do | .89 | 18.0 |
| 10 | Fir Creek | Bear Valley Creek | Mouth, about sec. 31, T. 13 N., R. 10 E. 6 miles northwest of Cape Horn, Idaho. | | 9.4 |

[a] Estimated.

[b] Beaver dam on control.

# INDEX

○