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SURFACE WATER SUPPLY *of the* UNITED STATES 1942

PART 10
THE GREAT BASIN

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In cooperation with the States of
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 ILLUSTRATION

Plate 1. Gaging-station structures: *A*, Donner und Blitzen River near Frenchglen, Oreg.; *B*, Sevier River near Juab, Utah; *C*, Beaver River near Beaver, Utah.....

SURFACE WATER SUPPLY OF THE GREAT BASIN, 1942

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes, and reservoirs in the United States during the water year ending September 30, 1942. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 9,400 gaging stations in the United States and also at many gaging stations in Alaska and Hawaii. In July 1942, 4,970 gaging stations were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made at many other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Cooperation of the first kind is acknowledged in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 11.

DEFINITION OF TERMS

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

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

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

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

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

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

"Stage-discharge relation" is an abbreviation for the term "relation between gage height and discharge."

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

EXPLANATION OF DATA

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

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

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to these rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the "shifting-control method," in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. At times the stage-discharge relation for a station may be temporarily changed by the presence of aquatic growth or debris on the control. For such times the daily mean discharge is computed by what is essentially the "shifting-control" method, described above.

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

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

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

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more



A. DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OREG.



B. SEVIER RIVER NEAR JUAB, UTAH.



C. BEAVER RIVER NEAR BEAVER, UTAH.

GAGING-STATION STRUCTURES.

complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum discharge represents the lowest stage, unless otherwise qualified. Selected peak discharges with the times of their occurrence are given below the table of monthly discharge for some stations. This supplementary information is generally omitted for stations having drainage areas of less than 10 square miles or more than 10,000 square miles or if the peak discharges usually exceed the corresponding mean discharges for the day by less than 10 percent.

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

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

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents is given. A skeleton table of capacity at given stages is usually given in the first report in which data for a station are published but is omitted from succeeding reports.

TIME BASIS

At 2 a.m. on February 9, 1942, as an emergency measure, the Nation shifted from standard time to "war time," and clock time in the several zones of the country was moved ahead 1 hour, or to 3 a.m. This made February 9 a 23-hour day. Time prior to 2 a.m. February 9 as given herein refers to standard time; time after 2 a.m. February 9 refers to war time. To convert war time to standard time, subtract 1 hour.

Records of daily discharge prior to February 9, 1942, published herein have been computed on the basis of standard time. Records subsequent to that date have been computed on the

basis of war time. The discharge given for February 9 is the mean for 23 hours. The mean discharge and runoff for the month of February have been computed from the total second-foot-days for the month without adjustment for the fact that February 9 was a 23-hour day. The small error resulting from this procedure has been disregarded.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

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

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

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

The table of monthly discharge presents in summary the distribution of the flow past the station. The table of daily discharge affords opportunity for more detailed studies of the variation in flow. As further observations in each succeeding year may be expected to throw new light on data previously published, it should be borne in mind that such data are subject to revision in succeeding water-supply papers.

PUBLICATIONS

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

- Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).
3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.

9. Colorado River Basin
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

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

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.
2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.
3. Sets are available for consultation in the local offices of the water-resources branch of the Geological Survey as follows:

East of the Mississippi River:

Albany, N. Y., 526 Federal Building.
 Asheville, N. C., 220 Post Office Building.
 Atlanta, Ga., 5 North Rhodes Center.
 Augusta, Maine, Statehouse.
 Baton Rouge, La., 124 Geology Building, Louisiana State University.
 Boston, Mass., 945 Post Office Building.
 Charleston, W. Va., 408 Union Building.
 Charlottesville, Va., House G, Dawson Row, University of Virginia.
 Chattanooga, Tenn., 442 Post Office Building.
 College Park, Md., Engineering Building, University of Maryland.
 Columbia, S. C., 119 United States Courthouse.
 Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
 Harrisburg, Pa., 490 Education Building.
 Hartford, Conn., 203 Federal Building.
 Indianapolis, Ind., 300 Reserve Loan Life Insurance Building.
 Jackson, Miss., 208 Millsaps Building.
 Knoxville, Tenn., 337 Post Office Building.
 Louisville, Ky., 531 Federal Building.
 Madison, Wis., 666 State Office Building.
 Montgomery, Ala., 507 Post Office Building.
 New Philadelphia, Ohio, Miami Conservancy District Building.
 Ocala, Fla., 302 Post Office Building.
 Pittsburgh, Pa., 515 Plaza Building.
 St. Paul, Minn., 1427 New Post Office Building.
 Trenton, N. J., 228 Federal Building.
 Urbana, Ill., 14 Post Office Annex, Elm Street.
 Williamsburg, Ky., Second and Sycamore Streets.

West of the Mississippi River:

Austin, Tex., 302 West 15th Street.
 Boise, Idaho, 429 Federal Building.
 Denver, Colo., 230 Customhouse.
 Fort Smith, Ark., 6 Post Office Building.
 Helena, Mont., 406 Federal Building.
 Honolulu, Hawaii, 225 Federal Building.
 Idaho Falls, Idaho, 204 Federal Building.
 Iowa City, Iowa, 506 Hydraulic Laboratory, University of Iowa.
 Lincoln, Nebr., 1404 Statehouse.
 Los Angeles, Calif., 529-H United States Post Office and Courthouse.
 Oklahoma City, Okla., 303 Capital Office Building.
 Portland, Oreg., 606 Post Office Building.
 Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
 St. Louis, Mo., 1002 New Federal Building.
 Salt Lake City, Utah, 303 Federal Building.
 San Francisco, Calif., 625 Market Street Building.
 Santa Fe, N. Mex., 204 United States Courthouse.
 Tacoma, Wash., 1100 Washington Building.
 Topeka, Kans., 305 Federal Building.
 Tucson, Ariz., 210 Post Office Building.

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

Early records of the flow of streams in the United States were published in the reports listed below:

Stream-flow data for the years 1884-1901, in reports of the Geological Survey

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

| Report | Character of data | Year |
|---------------|---|------------------------|
| 10th A, pt. 2 | Descriptive information only. | |
| 11th A, pt. 2 | Monthly discharge and descriptive information..... | 1884 to Sept. 1890. |
| 12th A, pt. 2 |do..... | 1884 to June 30, 1891. |
| 13th A, pt. 3 |do..... | 1884 to Dec. 31, 1892. |
| 14th A, pt. 2 | Monthly discharge (long-time records, 1871-93)..... | 1888 to Dec. 31, 1893. |
| B 151..... | Descriptions, measurements, gage heights, and ratings..... | 1893-94. |
| 16th A, pt. 2 | Descriptive information only. | |
| B 140..... | Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years). | 1895. |
| W 11..... | Gage heights (also gage heights for earlier years)..... | 1896. |
| 18th A, pt. 4 | Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years). | 1895-96. |
| W 15..... | Descriptions, measurements, and gage heights of streams east of the Mississippi River and Missouri River and tributaries above Kansas River. | 1897. |
| W 16..... | Descriptions, measurements, and gage heights of streams west of the Mississippi River except Missouri River and tributaries above Kansas River. | 1897. |
| 19th A, pt. 4 | Descriptions, measurements, ratings, and monthly discharge (also some long-time records). | 1897. |
| W 27..... | Measurements, ratings, and gage heights of streams east of the Mississippi River and Missouri River and tributaries. | 1898. |
| W 28..... | Measurements, ratings, and gage heights of streams west of the Mississippi River except Missouri River and tributaries. | 1898. |
| 20th A, pt. 4 | Monthly discharge (also for many earlier years)..... | 1898. |
| W 35 to 39... | Descriptions, measurements, gage heights, and ratings..... | 1899. |
| 21st A, pt. 4 | Monthly discharge..... | 1899. |
| W 47 to 52... | Descriptions, measurements, gage heights, and ratings..... | 1900. |
| 22d A, pt. 4 | Monthly discharge..... | 1900. |
| W 65, 66..... | Descriptions, measurements, gage heights, and ratings..... | 1901. |
| W 75..... | Monthly discharge..... | 1901. |

Papers on surface water supply containing records from 1899 to date, grouped by years and drainage basins, are listed by number on page 7. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, 503, which contain records for the Ohio River Basin for those years.

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

Each of the reports on surface water supply for the year 1939, issued as Water-Supply Papers 871 to 884 (see table on p. 7), contains a summary of yearly discharge at gaging stations in the area covered by that report. Gaging stations at which 10 or more complete years of record have been collected are represented. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1942

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|------------|------------------|-----------|----------|----------|----------|----------|----------|---------------|----------|----------|----------|----------|----------|----------|
| 1899 a... | 55 | 65 | 36 | 36 | 36 | 37 | 37 | 37 | 437, 38 | 38, 839 | 38, 739 | 38 | 38 | 38 |
| 1900 g... | 47, 148 | 48 | 48 | 49 | 49 | 49, 750 | 50 | 50 | 50 | 50 | 51 | 51 | 51 | 51 |
| 1901 g... | 65, 75 | 65 | 65 | 65 | 65 | 66, 75 | 66, 75 | 66, 75 | 66, 75 | 66, 75 | 66, 75 | 66, 75 | 66, 75 | 66, 75 |
| 1902 g... | 87 | 87 | 87 | 87 | 87 | 88, 89 | 88, 89 | 88, 89 | 88, 89 | 88, 89 | 88, 89 | 88, 89 | 88, 89 | 88, 89 |
| 1903 g... | 97 | 97 | 97 | 97 | 97 | 98, 99 | 98, 99 | 98, 99 | 98, 99 | 98, 99 | 98, 99 | 98, 99 | 98, 99 | 98, 99 |
| 1904 g... | 124, 125 | 124, 125 | 124, 125 | 124, 125 | 124, 125 | 130, 131 | 128, 129 | 128, 129 | 133, 134 | 133, 134 | 133, 134 | 133, 134 | 133, 134 | 133, 134 |
| 1905 g... | 0165, 0166, 0167 | 0167, 168 | 169 | 170 | 171 | 172 | 174 | 175, 177, 178 | 176, 177 | 177 | 178 | 178 | 178 | 177, 178 |
| 1906 g... | 0201, 0202, 241 | 0203, 204 | 205 | 206 | 207 | 208 | 209 | 211, 213 | 212, 213 | 213 | 214 | 214 | 214 | 214 |
| 1907-8... | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270, 271 | 271 | 272 | 272 | 272 |
| 1909 g... | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 292 | 292 |
| 1910 g... | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 312 | 312 |
| 1911 g... | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 332 | 332 |
| 1912 g... | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 342 | 342 |
| 1913 g... | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 352 | 352 |
| 1914 g... | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 362 | 362 |
| 1915 g... | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 364 | 364 |
| 1916 g... | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 412 | 412 |
| 1917 g... | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 442 | 442 |
| 1918 g... | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 462 | 462 |
| 1919-20... | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 482 | 482 |
| 1921 g... | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 512 | 512 |
| 1922 g... | 521 | 522 | 523 | 524 | 525 | 526 | 527 | 528 | 529 | 530 | 531 | 532 | 532 | 532 |
| 1923 g... | 541 | 542 | 543 | 544 | 545 | 546 | 547 | 548 | 549 | 550 | 551 | 552 | 552 | 552 |
| 1924 g... | 561 | 562 | 563 | 564 | 565 | 566 | 567 | 568 | 569 | 570 | 571 | 572 | 572 | 572 |
| 1925 g... | 581 | 582 | 583 | 584 | 585 | 586 | 587 | 588 | 589 | 590 | 591 | 592 | 592 | 592 |
| 1926 g... | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 | 611 | 612 | 612 | 612 |
| 1927 g... | 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 | 631 | 632 | 632 | 632 |
| 1928 g... | 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 650 | 651 | 652 | 652 | 652 |
| 1929 g... | 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 670 | 671 | 672 | 672 | 672 |
| 1930 g... | 681 | 682 | 683 | 684 | 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 692 | 692 |
| 1931 g... | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 707 | 707 |
| 1932 g... | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 722 | 722 |
| 1933 g... | 726 | 727 | 728 | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 737 | 737 |
| 1934 g... | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 750 | 751 | 752 | 752 | 752 |
| 1935 g... | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 767 | 767 |
| 1936 g... | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 774 | 774 |
| 1937 g... | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811 | 812 | 812 | 812 |
| 1938 g... | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 830 | 831 | 832 | 832 | 832 |
| 1939 g... | 851 | 852 | 853 | 854 | 855 | 856 | 857 | 858 | 859 | 860 | 861 | 862 | 862 | 862 |
| 1940 g... | 871 | 872 | 873 | 874 | 875 | 876 | 877 | 878 | 879 | 880 | 881 | 882 | 882 | 882 |
| 1941 g... | 891 | 892 | 893 | 894 | 895 | 896 | 897 | 898 | 899 | 900 | 901 | 902 | 902 | 902 |
| 1942 g... | 921 | 922 | 923 | 924 | 925 | 926 | 927 | 928 | 929 | 930 | 931 | 932 | 932 | 932 |
| 1943 g... | 951 | 952 | 953 | 954 | 955 | 956 | 957 | 958 | 959 | 960 | 961 | 962 | 962 | 962 |

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

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

Reports containing compilation of discharge by States and drainage basins

| Water-supply Paper | Period | State or drainage basin and title |
|--------------------|-----------|--|
| STATE | | |
| 107 | 1895-1903 | Alabama, Water powers of, with an appendix on stream measurements in Mississippi. |
| 298 | 1887-1912 | California, Water resources of, part 1, Stream measurements in Sacramento River Basin. |
| 299 | 1878-1912 | California, Water resources of, part 2, Stream measurements in San Joaquin River Basin. |
| 300 | 1891-1912 | California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific Coast river basins. |
| 477 | 1890-1918 | California, southern, Surface water supply of Pacific slope of. |
| 597-E | 1895-1927 | California, Surface water supply of Sacramento River Basin. |
| 635-D | 1895-1927 | California, Surface water supply of San Joaquin River Basin. |
| 636-E | 1894-1927 | California, southern, Surface water supply of Pacific slope basins in. |
| 637-A | 1895-1927 | California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in. |
| 74 | 1884-1900 | Colorado, Water resources of. |
| 197 | 1895-1905 | Georgia, Water resources of. |
| 415 | 1845-1915 | Massachusetts, Surface waters of. |
| 230 | 1894-1906 | Nebraska, Surface water supply of. |
| 370 | 1876-1910 | Oregon, Surface water supply of. |
| 850 | 1898-1937 | Texas, Summary of records of surface waters of. |
| 424 | 1875-1916 | Vermont, Surface waters of. |
| 492 | 1878-1919 | Washington, Summary of hydrometric data in. |
| 870 | 1919-35 | Washington, Summary of records of surface waters of. |
| 156 | 1895-1905 | Wisconsin, northern, Water powers of. |
| 469 | 1894-1921 | Wyoming, Surface waters of, and their utilization. |
| DRAINAGE BASIN | | |
| 395 | 1888-1914 | Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization. |
| 187 | 1897-1927 | Colorado River, upper (Colo., Utah), and its utilization. |
| 517 | 1889-1920 | Great Salt Lake Basin, Water powers of. |
| 618 | 1894-1926 | Green River (Utah, Wyo.) and its utilization. |
| 198 | 1890-1906 | Kennebec River Basin (Maine), Water resources of. |
| 491 | 1898-1917 | Milk River. See St. Mary and Milk Rivers. |
| 556 | 1895-1920 | New Kanawha River Basin (W. C., Va., W. Va.), Surface water supply of. |
| 279 | 1904-9 | Penobscot River Basin (Maine), Water resources of. |
| 192 | 1895-1906 | Potomac River Basin (D. C., Md., W. Va.) |
| 358 | 1898-1913 | Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of, 1888-1913. |
| 491 | 1898-1917 | St. Mary and Milk Rivers (Mont., Canada), Water supply of. |
| 109 | 1890-1904 | Susquehanna River Basin (Pa., Md.), Hydrography of. |

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

State reports containing compilation of records of discharge

| State | Period | Report | Issued by |
|------------------|-----------|---|--|
| Alabama..... | 1895-1915 | Bull. 17, Water powers of Alabama..... | Geological Survey of Alabama. |
| Arkansas..... | 1887-1928 | Stream-gaging Rept. 1..... | Arkansas Geological Survey. |
| Colorado..... | 1881-1935 | Water resources of Colorado, Appendix 2, Data on stream-gaging stations of Colorado. ¹ | State Planning Commission, Water Conservation Board, State engineer. |
| Do..... | 1881-1938 | Water resources of Colorado, Appendix 3, vols. 1 and 2, Stream-flow data of Colorado. | Do. |
| Connecticut..... | 1900-1927 | Bull. 44, Water resources of Connecticut. | State Geological and Natural History Survey. |
| Do..... | 1912-33 | 5th biennial report ² | Connecticut State Water Commission. |
| Georgia..... | 1895-1906 | Bull. 16, Water powers of Georgia..... | Geological Survey of Georgia. |
| Do..... | 1907-19 | Bull. 38, Water powers of Georgia..... | Do. |
| Illinois..... | 1908-11 | Water resources of Illinois..... | Rivers and Lakes Commission. |
| Do..... | 1900-1934 | Stream-flow data of Illinois..... | Division of Waterways. |

¹ Contains records of yearly discharge only.

² Contains records of monthly discharge in second-feet per square mile.

State reports containing compilation of records of discharge--Continued

| State | Period | Report | Issued by |
|-----------------|-----------|--|--|
| Indiana..... | 1923-27 | Pub. 72, Surface water supply of Indiana. | Department of Conservation. |
| Do..... | 1927-30 | Pub. 112, Surface water supply of Indiana. | Do. |
| Iowa..... | 1873-1932 | Stream-flow records of Iowa..... | Iowa State Planning Board. |
| Do..... | 1873-1940 | Summaries of flow relating to Iowa streams. | Iowa Geological Survey. |
| Kansas..... | 1895-1919 | Surface waters of Kansas..... | Kansas Water Commission. |
| Do..... | 1919-24 |do..... | Do. |
| Do..... | 1924-28 |do..... | Kansas State Board of Agriculture. |
| Do..... | 1928-35 | Stream-flow data of Kansas..... | Do. |
| Do..... | 1935-39 |do..... | Do. |
| Kentucky..... | 1910-20 | Surface waters of Kentucky..... | Kentucky Geological Survey. |
| Louisiana... | 1903-38 | Geol. Bull. 16, Surface water supply of Louisiana. | Department of Conservation. |
| Maine..... | 1887-1920 | 1st annual report ² | Maine Water Power Commission. |
| Maryland..... | 1929-37 | Flow data and draft storage curves for major streams in Maryland. | State Planning Commission and Water Resources Commission. |
| Minnesota... | 1909-12 | Water-resources investigation of Minnesota. | State Drainage Commission. |
| Missouri.... | 1857-1926 | Vol. 20, 2d series, Water resources of Missouri. | Missouri Geological Survey and Water Resources. |
| Do..... | 1927-39 | Vol. 26, 2d series, Surface waters of Missouri. | Do. |
| Montana..... | 1889-1911 | 5th biennial report..... | Office of the State engineer. |
| Do..... | 1881-1938 | Special Rept. 10, vols. 1-4, Water resources of Montana. | Montana Agricultural Experiment Station. |
| Nebraska... | 1894-1914 | 1st hydrographic report..... | Bureau of Water Power, Irrigation, and Drainage. |
| Do..... | 1914-28 | 2d hydrographic report..... | Do. |
| New Jersey.. | 1891-1928 | Bull. 33, Surface water supply of New Jersey. | Department of Conservation and Development. |
| Do..... | 1928-34 | Special Rept. 5, Surface water supply of New Jersey. | State Water Policy Commission. |
| New Mexico.. | 1888-1925 | Surface water supply of New Mexico..... | Office of the State Engineer. |
| North Carolina. | 1889-1923 | Bull. 34, Discharge records of North Carolina streams. ³ | Department of Conservation and Development. |
| Do..... | 1889-1936 | Bull. 39, Discharge records of North Carolina streams. ⁴ | Do. |
| North Dakota | 1919-21 | Report to Governor of North Dakota on flood control. | State chief engineer. |
| Do..... | 1882-1938 | Surface water in North Dakota..... | State Planning Board. |
| Ohio..... | 1898-1921 | Bull. 73, Ohio stream flow..... | Engineering Experiment Station, Ohio State University. |
| Do..... | 1902-39 | Bull. 200, Compilation of stream-flow records of Ohio. | Department of Agriculture, Division of Conservation and Natural Resources. |
| Do..... | 1898-1939 | Bull. 3, Ohio stream-drainage areas and flow-duration tables. | Engineering Experiment Station, Ohio State University. |
| Oregon..... | 1878-1914 | Bull. 4, Water resources of the State of Oregon. | Office of the State Engineer. |
| Do..... | 1914-24 | Bull. 7, Water resources of the State of Oregon. | Do. |
| Do..... | 1924-30 | Bull. 8, Water resources of the State of Oregon. | Do. |
| Do..... | 1930-36 | Bull. 9, Water resources of the State of Oregon. | Do. |
| Pennsylvania | 1890-1911 | Report of the Water Supply Commission of Pennsylvania. | Water Supply Commission of Pennsylvania. |
| Do..... | 1928-32 | Stream-flow records of Pennsylvania.... | Department of Forests and Waters. |
| Rhode Island | 1929-41 | 7th annual report..... | Department of Public Works. |
| Tennessee... | 1874-1924 | Bull. 34, Water resources of Tennessee. | Department of Education. |
| Do..... | 1920-30 | Bull. 40, Surface Waters of Tennessee. ³ | Do. |
| Utah..... | 1889-1905 | 5th biennial report, State engineer.... | Office of the State Engineer. |
| Do..... | 1906-10 | 7th biennial report, State engineer.... | Do. |
| Do..... | 1911-1916 | 10th biennial report, State engineer.... | Do. |
| Virginia.... | 1895-1927 | Bull. 31, Water resources of Virginia.. | Conservation Commission. |
| Washington.. | 1878-1933 | Bull. 8, Monthly and yearly summaries of hydrographic data. | Department of Conservation and Development. |
| Wisconsin... | 1888-1914 | 1st report of Railroad Commission of Wisconsin to Legislature on water powers. | Railroad Commission of Wisconsin. |
| Do..... | 1914-23 | 2d report of Railroad Commission of Wisconsin to Legislature on water powers. | Do. |

² Contains records of monthly discharge in second-feet per square mile.

³ Contains records of weekly discharge.

⁴ Contains records of maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.

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

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

| Water-Supply Paper | Title |
|--------------------|---|
| 88 | The Passaic flood of 1902. |
| 92 | The Passaic flood of 1903. |
| 96 | Destructive floods in the United States in 1903. |
| 147 | Destructive floods in the United States in 1904. |
| 162 | Destructive floods in the United States in 1905. |
| 334 | The Ohio Valley flood of March-April 1913. |
| 426 | Southern California floods of January 1916. |
| 487 | The Arkansas River flood of June 3-5, 1921. |
| 488 | The floods in central Texas in September 1921. |
| 630-G | Some floods in the Rocky Mountain region. |
| 638-C | The New England flood of November 1927. |
| 771 | Floods in the United States, magnitude and frequency. |
| 773-E | The New York State flood of July 1935. |
| 798-B | Flood on Republican and Kansas Rivers, May and June 1935. |
| 798-C | Flood in La Canada Valley, Calif., January 1, 1934. |
| 798-G | Major Texas floods of 1935. |
| 798 | The floods of March 1936, part 1, New England Rivers. |
| 799 | The floods of March 1936, part 2, Hudson River to Susquehanna River region. |
| 800 | The floods of March 1936, part 3, Potomac, James, and upper Ohio Rivers. |
| 816 | Major Texas floods of 1936. |
| 836-A | Stages and flood discharges of the Connecticut River at Hartford, Conn. |
| 838 | Floods of Ohio and Mississippi Rivers, January-February 1937. |
| 842 | Floods in Canadian and Pecos River Basins of New Mexico, May and June 1937. |
| 843 | Floods of December 1937 in northern California. |
| 844 | Floods of March 1938 in southern California. |
| 847 | Maximum discharges at stream-measurement stations through September 1938. |
| 867 | Hurricane floods of September 1938. |
| 869 | Flood of August 1935 in Muskingum River Basin, Ohio. |
| 914 | Texas floods of 1938 and 1939. |

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of daily discharge were collected during the water year October 1941 to September 1942 by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey except as noted in footnotes to the table. Records on many canals and ditches and occasional records on several natural streams, none of which are here listed, have also been collected, and some of them have been published in the reports of irrigation projects or of the water commissioner of the drainage basin in which the streams are situated.

Records of discharge collected by agencies other than the Geological Survey

| Stream | Location | Period | Collected by |
|--------------------------------|--|------------|--|
| Big Creek..... | Smiths Ranch near Randolph, Utah... | 1939-42 | Bureau of Reclamation. |
| Center Creek..... | Near Heber, Utah..... | 1940-42 | Do. |
| Centerville Creek. | Centerville, Utah, near mouth of canyon. | 1937-42 | Intermountain Forest & Range experiment station. |
| Centerville Creek tributaries. | Near Centerville, Utah (at several gaging stations). | 1937-42 | Do. |
| City Creek..... | Salt Lake City, Utah, near mouth of canyon. | 1898-1942a | Salt Lake City. |
| Clarkston Creek... | Near Clarkston, Utah, below Newton Reservoir. | 1939-42 | Bureau of Reclamation. |
| Cottonwood Creek.. | Salt Lake City, Utah, near mouth of canyon | 1898-1942a | Salt Lake City. |

a Records prior to 1913 are contained in water-supply papers published by the Geological Survey; those for 1913-30, in reports published by Salt Lake City.

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

| Stream | Location | Period | Collected by |
|---|---|----------------------------|--|
| Ottomwood Creek..... | Sec. 16, T. 12 S., R. 39 E., near Swanlake, Idaho. | 1939-42 | Bureau of Reclamation. |
| Do..... | Near Cleveland, Idaho..... | 1939-42 | Do. |
| Cub River..... | Near Preston, Idaho, above diversions. | 1940-42 | Do. |
| Do..... | Near Franklin, Idaho, below diversions. | 1940-42 | Do. |
| Daniels Creek..... | Near Heber, Utah..... | 1940-42 | Do. |
| Deer Creek..... | Near Provo, Utah, in Provo Canyon. | 1938-42 | Do. |
| Emigration Creek..... | Salt Lake City, Utah, near mouth of canyon. | 1898-1942a | Salt Lake City. |
| Ephraim Creek tributaries. | Near Ephraim, Utah (at two gaging stations). | 1914-42 | Intermountain Forest & Range experiment station. |
| Farmington Creek tributaries | Near Farmington, Utah (at several gaging stations). | 1937-42 | Do. |
| Honey Creek..... | Near Flush, Oreg..... | 1909-15, 1921-22, 1930-42b | Oregon State engineer. |
| Lake Creek..... | Near Heber, Utah..... | 1940-42 | Bureau of Reclamation. |
| Little Bear River, East Fork of. | Near Avon, Utah, at dam site.... | 1939-42 | Do. |
| Little Ottomwood Creek. | Salt Lake City, Utah, near mouth of canyon. | 1898-1942b | Salt Lake City. |
| Logan River..... | Twin Creek near Logan, Utah.... | 1942 | Bureau of Reclamation. |
| Mill Creek..... | Salt Lake City, Utah, near mouth of canyon. | 1898-1942b | Salt Lake City. |
| Otter Creek..... | Red Ranch, near Randolph, Utah.. | 1939-42 | Bureau of Reclamation. |
| Otter Creek outlet... | Antimony, Utah, at former Geological Survey gaging station near Coyoto. | 1920-42c | Sevier River water commissioner. |
| Pariah Creek..... | Centerville, Utah, near mouth of canyon. | 1937-42 | Intermountain Forest & Range experiment station. |
| Pariah Creek tributaries. | Near Centerville, Utah (at several gaging stations). | 1937-42 | Do. |
| Parleys Creek..... | Salt Lake City, Utah, near mouth of canyon. | 1898-1942b | Salt Lake City. |
| Provo River..... | Below Charleston, Utah, at middle of Deer Creek Reservoir area | 1938-42 | Bureau of Reclamation. |
| Do..... | Below Deer Creek Dam, in Provo Canyon, Utah. | 1938-42 | Do. |
| Do..... | Near Hailstone, Utah..... | 1940-42 | Do. |
| Do..... | Near Olmsted, Utah, in Provo Canyon, above irrigation diversions. | 1938-42 | Do. |
| Provo River and streams tributary to Deer Creek Reservoir area. | Near Charleston, Utah, above backwater of reservoir. | 1938-42 | Do. |
| Provo River, North Fork of. | Wildwood, Utah, in Provo Canyon. | 1938-42 | Do. |
| Ross Creek..... | Near Hailstone, Utah..... | 1940-42 | Do. |
| Sevier River..... | Delta, Utah, at former Geological Survey gaging station. | 1920-42c | Sevier River water commissioner. |
| Strawberry tunnel outlet. | At West Portal, Utah..... | 1913-42d | Spanish Fork Water Users' Association. |
| Treasureton Canal.... | Sec. 8, T. 12 S., R. 39 E., near Swanlake, Idaho | 1939-42 | Bureau of Reclamation. |
| Woodruff Creek, South Fork of. | Near Woodruff, Utah, at dam site | 1939-42 | Do. |

a Records prior to 1913 are contained in water-supply papers published by the Geological Survey; those for 1913-30, in reports published by Salt Lake City.

b Records are published in bulletins of the Oregon State engineer (see page 8, "State reports containing compilation of records of discharge") except those subsequent to 1936, which have not been published.

c Published in the annual reports of Sevier River water commissioner.

d Published in reports of the Strawberry Valley project and of the Spanish Fork water Commissioner.

Notes.- Records here listed other than those cited in above notes have not been published. The Soil Conservation Service began in 1938 to make studies of runoff from four areas of less than 800 acres each in the vicinity of Safford, Ariz. Records of these studies are in the files of that organization.

COOPERATION

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

California: State Department of Public Works, F. W. Clark, Director, and Edward Hyatt, State engineer; San Bernardino and Los Angeles Counties.

Idaho: State Department of Reclamation, E. V. Berg, commissioner.

Nevada: Office of State engineer, A. M. Smith.

Oregon: Office of State engineer, C. E. Stricklin.

Utah: Office of State engineer, Ed. H. Watson.

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

Assistance in collection records was rendered also by the following organizations and corporations:

California: Walker River Irrigation District.

Idaho: Bureau of Reclamation.

Oregon: Fish and Wildlife Service, Harney and Lake Counties.

Utah: Bureau of Reclamation, Utah Power & Light Co.

DIVISION OF WORK

The stream-gaging work was conducted by the water resources branch of the Geological Survey, Glenn L. Parker, chief hydraulic engineer, Carl G. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface waters. The data for the stations in the several States were collected and prepared for publication under supervision of district engineers as follows: in California (except for stations in Walker Lake and Carson River Basins), H. D. McGlashan; in Idaho (except for stations on Bear River), T. R. Newell; in Oregon, G. H. Canfield, the work being done in collaboration with C. E. Stricklin, State engineer; in Utah and Nevada and for stations in Walker Lake and Carson River Basins in California and on Bear River in Idaho, A. B. Purton prior to November 30, 1942, and M. T. Wilson, acting, after that date; in Wyoming, Robert Follansbee.

The records were reviewed and the manuscript prepared for publication under the direction of B. J. Peterson, engineer in charge, and J. W. Gambrell, assistant engineer, section of reports.

GREAT SALT LAKE BASIN

Gages on Great Salt Lake, Utah

Location.- Water-stage recorder, lat. 40°44'15", long. 112°12'30", in NW¼ sec. 17, T. 1 S., R. 3 W., at Salt Lake County Boat Harbor, on southeast shore of lake, 17 miles west of Salt Lake City; and staff gage, lat. 41°13', long. 112°36', at Midlake, on Lucin cut-off of Southern Pacific Railroad, 30 miles west of Ogden. Datum of Boat Harbor gage is 4,186.85 feet above mean sea level, that of Midlake gage, 4,198.0 feet above mean sea level, adjustment of 1912. To reduce elevations to datum of 1929, add 0.05 foot.

Records available.- September 1875 to December 1899, March to July 1904 and October 1912 to September 1942 in reports of Geological Survey. July 1903 to December 1934 in reports of U. S. Weather Bureau. Diagram showing fluctuations of lake from 1851-1940 is published in Water-Supply Paper 880.

Extremes.- Maximum elevation during year, 4,196.6 feet June 1 at Midlake gage; minimum, 4,194.0 feet Oct. 1 at both gages.

1851-1942: Maximum elevation, 4,211.6 feet in 1873, computed from traditional data by E. C. La Rue (see Water-Supply Paper 880, p. 125); minimum, 4,193.65 feet Oct. 15 and Nov. 1, 1940, at Boat Harbor gage and Oct. 15, 1940, at Midlake gage.

Remarks.- Apparent inconsistencies in readings are probably due largely to the effect of wind, as the two gages are about 40 miles apart. To compensate for wind effect, elevations given for the Boat Harbor gage are taken from a mean slope line defined by several days' gage-height graph preceding and following 12:01 a.m. for the first and fifteenth of each month.

Cooperation.- Records for Midlake gage furnished by Southern Pacific Railroad.

Gage height, in feet, of Great Salt Lake, Utah,
water year 1941-42

| Day | Boat Harbor | Midlake |
|---------|-------------|---------|
| Oct. 1 | 7.15 | -4.0 |
| 15 | 7.2 | -3.9 |
| Nov. 1 | 7.35 | -3.85 |
| 15 | 7.45 | -3.75 |
| Dec. 1 | 7.5 | -3.65 |
| 15 | 7.65 | -3.5 |
| Jan. 1 | 7.8 | -3.35 |
| 15 | 7.95 | -3.25 |
| Feb. 1 | 8.15 | -3.1 |
| 15 | 8.4 | -2.65 |
| Mar. 1 | 8.6 | -2.5 |
| 15 | 8.85 | -2.4 |
| Apr. 1 | 9.1 | -2.1 |
| 15 | 9.25 | -1.75 |
| May 1 | 9.4 | -1.75 |
| 15 | 9.55 | -1.65 |
| June 1 | 9.65 | -1.4 |
| 15 | 9.6 | -1.5 |
| July 1 | 9.4 | -1.65 |
| 15 | 9.15 | -1.9 |
| Aug. 1 | 8.9 | -2.15 |
| 15 | 8.7 | -2.4 |
| Sept. 1 | 8.35 | -2.75 |
| 15 | 8.15 | -3.0 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Bear River near Utah-Wyoming State line

Location.- Water-stage recorder, lat. 40°58', long. 110°51', in sec. 30, T. 3 N., R. 10 E., just downstream from West Fork, 2.8 miles upstream from Utah-Wyoming State line.

Drainage area.- 176 square miles.

Records available.- July to September 1942.

Extremes.- Maximum discharge during period, 252 second-feet July 16 (gage height, 2.15 feet); minimum daily, 34 second-feet Sept. 9.

Remarks.- Records good. A few small diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | | | | | | | | | | - | 80 | 42 |
| 2 | | | | | | | | | | - | 82 | 40 |
| 3 | | | | | | | | | | - | 84 | 37 |
| 4 | | | | | | | | | | - | 76 | 39 |
| 5 | | | | | | | | | | - | 74 | 38 |
| 6 | | | | | | | | | | - | 72 | 39 |
| 7 | | | | | | | | | | - | 68 | 37 |
| 8 | | | | | | | | | | - | 65 | 36 |
| 9 | | | | | | | | | | - | 63 | 34 |
| 10 | | | | | | | | | | - | 62 | 35 |
| 11 | | | | | | | | | | - | 62 | 52 |
| 12 | | | | | | | | | | - | 99 | 63 |
| 13 | | | | | | | | | | - | 65 | 57 |
| 14 | | | | | | | | | | - | 57 | 46 |
| 15 | | | | | | | | | | 212 | 52 | 42 |
| 16 | | | | | | | | | | 228 | 50 | 39 |
| 17 | | | | | | | | | | 198 | 47 | 38 |
| 18 | | | | | | | | | | 198 | 46 | 38 |
| 19 | | | | | | | | | | 176 | 48 | 40 |
| 20 | | | | | | | | | | 158 | 47 | 40 |
| 21 | | | | | | | | | | 145 | 45 | 39 |
| 22 | | | | | | | | | | 136 | 42 | 39 |
| 23 | | | | | | | | | | 130 | 44 | 38 |
| 24 | | | | | | | | | | 123 | 48 | 38 |
| 25 | | | | | | | | | | 119 | 68 | 37 |
| 26 | | | | | | | | | | 114 | 60 | 37 |
| 27 | | | | | | | | | | 108 | 48 | 39 |
| 28 | | | | | | | | | | 103 | 42 | 41 |
| 29 | | | | | | | | | | 103 | 45 | 40 |
| 30 | | | | | | | | | | 97 | 47 | 40 |
| 31 | | | | | | | | | | 88 | 45 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October..... | | | | | |
| November..... | | | | | |
| December..... | | | | | |
| Calendar year..... | | | | | |
| January..... | - | - | - | - | - |
| February..... | - | - | - | - | - |
| March..... | - | - | - | - | - |
| April..... | - | - | - | - | - |
| May..... | - | - | - | - | - |
| June..... | - | - | - | - | - |
| July 15-31..... | 2,436 | 228 | 88 | 143 | 4,830 |
| August..... | 1,833 | 99 | 42 | 59.1 | 3,640 |
| September..... | 1,220 | 63 | 34 | 40.7 | 2,420 |
| The period..... | - | - | - | - | 10,890 |

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Bear River near Evanston, Wyo.

Location.- Water-stage recorder, lat. 41°19', long. 111°01', in sec. 1, T. 15 N., R. 121 W., 300 feet upstream from highway bridge and 3 1/4 miles northwest of Evanston.

Drainage area.- 645 square miles.

Records available.- October 1913 to September 1942.

Average discharge.- 29 years, 232 second-feet.

Extremes.- Maximum discharge during year, 2,170 second-feet May 27 (gage height, 5.69 - feet); no flow Aug. 18 to Sept. 20.

1913-42: Maximum discharge, 3,690 second-feet June 14, 1921 (gage height, 6.35 feet), from rating curve extended above 2,700 second-feet; no flow during some periods in 1924, 1931, 1933, 1934, 1939, 1940, 1942.

Remarks.- Records excellent except those below 20 second-feet and those for period of ice effect, which are fair. Some diversions above station for irrigation.

Rating table, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|-----|-----|-----|-----|-------|
| 0.4 | 0 | 1.1 | 25 | 3.4 | 650 |
| .5 | .2 | 1.2 | 35 | 4.4 | 1,065 |
| .6 | 1.0 | 1.4 | 62 | 5.0 | 1,410 |
| .7 | 2.5 | 1.6 | 96 | 5.3 | 1,650 |
| .8 | 5.0 | 1.8 | 136 | 5.7 | 2,190 |
| .9 | 10 | 2.1 | 210 | | |
| 1.0 | 17 | 2.4 | 300 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|-------|-------|-------|------|------|-------|
| 1 | 22 | 83 | *80 | 58 | 60 | 78 | 276 | 356 | 980 | 146 | 4.5 | 0 |
| 2 | 27 | 102 | 72 | 56 | 62 | 75 | 403 | 370 | 1,030 | 128 | 3.8 | 0 |
| 3 | 31 | 124 | 76 | 52 | 64 | 78 | 496 | 328 | 1,120 | 108 | 3.5 | 0 |
| 4 | 56 | 110 | 75 | 47 | 66 | 76 | 686 | 348 | 1,180 | 94 | 3.2 | 0 |
| 5 | 52 | 122 | 76 | 45 | 68 | 78 | 930 | 294 | 1,090 | 85 | 2.8 | 0 |
| 6 | 68 | *104 | 72 | 46 | 74 | 80 | 1,130 | 282 | 1,080 | 75 | 2.2 | 0 |
| 7 | 68 | 98 | 74 | 49 | 76 | 82 | 1,070 | 314 | 1,210 | 64 | 1.8 | 0 |
| 8 | 72 | 82 | 72 | 54 | 74 | 86 | 1,030 | 398 | 1,400 | 64 | 1.4 | 0 |
| 9 | 75 | 82 | 72 | 56 | 74 | 94 | 1,020 | 496 | 1,330 | 56 | 1.0 | 0 |
| 10 | 67 | 86 | 72 | 58 | 72 | 96 | 1,010 | 570 | 1,210 | 46 | .8 | 0 |
| 11 | 68 | 73 | 76 | 62 | *71 | 105 | *842 | 590 | 1,240 | 39 | .8 | 0 |
| 12 | 70 | 73 | 74 | 62 | 66 | *116 | 698 | 698 | 1,130 | 32 | 1.2 | 0 |
| 13 | 73 | 80 | 78 | 58 | 62 | 120 | 604 | 588 | 878 | 25 | .8 | 0 |
| 14 | 92 | 80 | 72 | 54 | 60 | 120 | 556 | 486 | 778 | 18 | .4 | 0 |
| 15 | 92 | 80 | 74 | *52 | 58 | 120 | 559 | 472 | 734 | 16 | .2 | 0 |
| 16 | 83 | 78 | 74 | 52 | 56 | 120 | 492 | 517 | 722 | 16 | .2 | 0 |
| 17 | 75 | 72 | 56 | 52 | 52 | 115 | 489 | 538 | 710 | 19 | .1 | 0 |
| 18 | 68 | 83 | 70 | 58 | 52 | 115 | 472 | 440 | 710 | 25 | 0 | 0 |
| 19 | 68 | 62 | 74 | 56 | 52 | 115 | 398 | 412 | 718 | 25 | 0 | 0 |
| 20 | 72 | 58 | 76 | 52 | 56 | 115 | 356 | 433 | 650 | 26 | 0 | 0 |
| 21 | 91 | 56 | 76 | 52 | 60 | 120 | 366 | 576 | 556 | 23 | 0 | .2 |
| 22 | 106 | 54 | 72 | 56 | 68 | 140 | 489 | 794 | 475 | 20 | 0 | 2.5 |
| 23 | 96 | 60 | 64 | 58 | 72 | 170 | 608 | 968 | 408 | 19 | 0 | 2.4 |
| 24 | 91 | 60 | 60 | 60 | 70 | 190 | 573 | 1,250 | 356 | 16 | 0 | 2.4 |
| 25 | 100 | 64 | 58 | 60 | 64 | 170 | 486 | 1,360 | 314 | 14 | 0 | 2.2 |
| 26 | 120 | 70 | 58 | 62 | 66 | 140 | 402 | 1,500 | 304 | 11 | 0 | 1.4 |
| 27 | 106 | 68 | 58 | 62 | 70 | 125 | 335 | 1,980 | 307 | 9.5 | 0 | 1.2 |
| 28 | 104 | 70 | 60 | 64 | 74 | 128 | 349 | 1,690 | 270 | 8.0 | 0 | 1.3 |
| 29 | 118 | 72 | 62 | 64 | - | 136 | 363 | 1,380 | 231 | 7.0 | 0 | 1.2 |
| 30 | 116 | 74 | 62 | 64 | - | 184 | 352 | 1,180 | 182 | 5.0 | 0 | .9 |
| 31 | 100 | - | 62 | 62 | - | 197 | - | 1,010 | - | 6.0 | 0 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October | 2,426 | 120 | 22 | 78.3 | 4,810 |
| November | 2,350 | 124 | 54 | 79.7 | 4,740 |
| December | 2,176 | 80 | 58 | 70.2 | 4,320 |
| Calendar year 1941 | 69,686.2 | 1,630 | 7.0 | 191 | 158,200 |
| January | 1,747 | 64 | 45 | 56.4 | 3,470 |
| February | 1,819 | 76 | 52 | 65.0 | 3,610 |
| March | 3,697 | 127 | 75 | 119.7 | 7,310 |
| April | 17,845 | 1,130 | 276 | 595 | 35,400 |
| May | 22,486 | 1,980 | 282 | 725 | 44,600 |
| June | 23,303 | 1,400 | 182 | 777 | 46,220 |
| July | 1,244.5 | 146 | 5.0 | 40.1 | 2,470 |
| August | 28.7 | 4.5 | 0 | .93 | 57 |
| September | 15.7 | 2.5 | 0 | .52 | 31 |
| Water year 1941-42 | 79,167.9 | 1,980 | 0 | 217 | 187,000 |

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 20 to Mar. 27.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Bear River at Border, Wyo.

Location.- Water-stage recorder, lat. 42°11', long. 111°03', in sec. 15, T. 14 S., R. 46 E., in Idaho, a quarter of a mile west of Wyoming State line and half a mile west of Border. Datum of gage is 6,051.63 feet above mean sea level, unadjusted.

Drainage area.- 2,490 square miles.

Records available.- October 1937 to September 1942.

Extremes.- Maximum discharge during year, 2,040 second-feet Apr. 8 (gage height, 6.89 feet); minimum daily, 57 second-feet Sept. 4, 5.
1937-42: Maximum discharge, that of Apr. 8, 1942; minimum daily, 30 second-feet Aug. 18-22, 1940.

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

Rating table, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|-----|-----|-----|-----|-------|
| 0.9 | 56 | 2.0 | 238 | 4.0 | 820 |
| 1.1 | 80 | 2.5 | 350 | 5.6 | 1,480 |
| 1.5 | 142 | 3.0 | 480 | 6.9 | 2,045 |
| 1.7 | 176 | 3.5 | 635 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|-------|-----|------|------|------|-------|
| 1 | 147 | 214 | 220 | 165 | 145 | 150 | 740 | 744 | 900 | 273 | 139 | 60 |
| 2 | 143 | 258 | *228 | 130 | 150 | 150 | 964 | 744 | 968 | 258 | 151 | 60 |
| 3 | 150 | 267 | 220 | 160 | 155 | 145 | 1,210 | 722 | 896 | 229 | 129 | 60 |
| 4 | 148 | 269 | 210 | 150 | 170 | 145 | 1,320 | 674 | 844 | 220 | 132 | 57 |
| 5 | 158 | 269 | 205 | 145 | 175 | 150 | 1,480 | 607 | 812 | 216 | 126 | 57 |
| 6 | 162 | *262 | 195 | 150 | 180 | 150 | 1,680 | 552 | 784 | 209 | 112 | 58 |
| 7 | 165 | 262 | 200 | 156 | 180 | 150 | 1,600 | 549 | 780 | 196 | 96 | 58 |
| 8 | 150 | 258 | 200 | 160 | 175 | 155 | 2,010 | 540 | 792 | 192 | 84 | 61 |
| 9 | 169 | 266 | 200 | 165 | 185 | 160 | 1,890 | 534 | 768 | 202 | 93 | 61 |
| 10 | 174 | 249 | 210 | 160 | 160 | 170 | 1,680 | 531 | 792 | 171 | 91 | 61 |
| 11 | 172 | 234 | 215 | 155 | 165 | 180 | 1,790 | 534 | 792 | 188 | 90 | 64 |
| 12 | 172 | 234 | 220 | 150 | *166 | 195 | 1,710 | 567 | 812 | 160 | 137 | 69 |
| 13 | 174 | 239 | 220 | 145 | 160 | *205 | 1,630 | 576 | 808 | 145 | 113 | 68 |
| 14 | 176 | 240 | 220 | 145 | 160 | *249 | 1,560 | 614 | 792 | 140 | 106 | 69 |
| 15 | 174 | 242 | 210 | 145 | 155 | 265 | 1,430 | 642 | 768 | 139 | 100 | 75 |
| 16 | 172 | 234 | 215 | *143 | 150 | 300 | 1,300 | 674 | 796 | 142 | 100 | 75 |
| 17 | 171 | 238 | 205 | 145 | 145 | 315 | 1,190 | 677 | 726 | 147 | 97 | 79 |
| 18 | 139 | 247 | 200 | 150 | 140 | 330 | 1,130 | 660 | 660 | 165 | 93 | 81 |
| 19 | 137 | 240 | 205 | 145 | 145 | 340 | 1,060 | 652 | 621 | 158 | 91 | 79 |
| 20 | 139 | 223 | 210 | 140 | 160 | 290 | 984 | 660 | 525 | 153 | 90 | 79 |
| 21 | 140 | 220 | 200 | 135 | 150 | 275 | 956 | 624 | 463 | 144 | 87 | 79 |
| 22 | 146 | 175 | 195 | 135 | 150 | 280 | 928 | 540 | 439 | 139 | 89 | 81 |
| 23 | 148 | 160 | 195 | 145 | 145 | 295 | 892 | 543 | 434 | 136 | 69 | 87 |
| 24 | 144 | 215 | 185 | 150 | *142 | 310 | 832 | 519 | 392 | 132 | 67 | 86 |
| 25 | 158 | 220 | 185 | 155 | *143 | 330 | 808 | 522 | 367 | 129 | 67 | 86 |
| 26 | 162 | 225 | 190 | 150 | 145 | 350 | 836 | 543 | 336 | 128 | 67 | 87 |
| 27 | 172 | 220 | 175 | 150 | 150 | 390 | 852 | 648 | 324 | 124 | 66 | 88 |
| 28 | 184 | 220 | 180 | 145 | 150 | 400 | 848 | 719 | 313 | 121 | 63 | 88 |
| 29 | 188 | 215 | 185 | 135 | - | 420 | 824 | 730 | 293 | 121 | 63 | 90 |
| 30 | 196 | 220 | 180 | 135 | - | 480 | 780 | 764 | 273 | 131 | 61 | 90 |
| 31 | 206 | - | 170 | 140 | - | 570 | - | 888 | - | 152 | 60 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October..... | 5,070 | 206 | 137 | 164 | 10,060 |
| November..... | 7,024 | 269 | 160 | 234 | 13,930 |
| December..... | 6,248 | 228 | 170 | 202 | 12,390 |
| Calendar year 1941 | 95,088 | 1,450 | 85 | 261 | 186,600 |
| January..... | 4,608 | 165 | 135 | 149 | 9,140 |
| February..... | 4,366 | 180 | 140 | 156 | 8,660 |
| March..... | 8,299 | 570 | 145 | 268 | 16,460 |
| April..... | 37,374 | 2,010 | 740 | 1,246 | 74,130 |
| May..... | 19,514 | 888 | 519 | 629 | 38,710 |
| June..... | 19,230 | 900 | 273 | 641 | 38,140 |
| July..... | 8,159 | 273 | 121 | 166 | 10,230 |
| August..... | 2,698 | 139 | 60 | 35.5 | 5,750 |
| September..... | 2,193 | 90 | 57 | 73.1 | 4,350 |
| Water year 1941-42 | 121,963 | 2,010 | 57 | 334 | 242,000 |

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 22 to Apr. 1.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.

To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Bear River at Harer, Idaho

Location.- Water-stage recorder, lat. 42°11'50", long. 111°10'05", in NW¼ sec. 23, T. 14 S., R. 45 E., 400 feet downstream from Sheep Creek, three-quarters of a mile north of Harer siding on Oregon Short Line Railroad, and 5 miles east of Dingle.

Drainage area.- 2,760 square miles.

Records available.- June 1913 to September 1916, January 1919 to September 1942.

Average discharge.- 26 years, 501 second-feet.

Extremes.- Maximum daily discharge during year, 2,280 second-feet Apr. 9; minimum daily, 76 second-feet Sept. 10.
1913-16, 1919-42: Maximum discharge, 3,860 second-feet June 2, 1920 (gage height, 10.51 feet); minimum daily, 26 second-feet Aug. 21-27, 1934.

Remarks.- Records good except those for period of no gage-height record, which are fair. Many diversions above station for irrigation.

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

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|-------|-----|------|------|------|-------|
| 1 | 186 | 246 | 240 | 190 | 185 | 165 | 700 | 824 | 902 | 322 | 174 | 79 |
| 2 | 189 | 278 | *241 | 190 | 185 | 165 | 880 | 809 | 898 | 332 | 167 | 77 |
| 3 | 191 | 300 | 240 | 190 | 190 | 165 | 1,150 | 797 | 902 | 303 | 163 | 77 |
| 4 | 191 | 306 | 245 | 185 | 190 | 170 | 1,510 | 766 | 894 | 281 | 168 | 77 |
| 5 | 201 | 309 | 240 | 185 | 195 | 175 | 1,660 | 721 | 848 | 269 | 160 | 77 |
| 6 | 208 | 313 | 240 | 185 | 195 | 175 | 1,730 | 647 | 824 | 272 | 156 | 77 |
| 7 | 211 | 306 | 240 | 185 | 195 | 170 | 1,850 | 632 | 801 | 275 | 145 | 77 |
| 8 | 214 | 306 | 235 | 185 | 195 | 170 | 2,110 | 621 | 801 | 283 | 133 | 77 |
| 9 | 221 | 303 | 230 | 180 | 195 | 170 | 2,280 | 607 | 805 | 258 | 129 | 77 |
| 10 | 216 | 303 | 215 | 180 | 195 | 180 | 2,220 | 607 | 809 | 243 | 125 | 76 |
| 11 | 221 | 288 | 240 | 180 | 195 | 190 | 2,100 | 603 | 809 | 224 | 125 | 77 |
| 12 | 221 | 278 | 240 | 180 | 195 | 195 | 2,000 | 625 | 812 | 227 | 135 | 100 |
| 13 | 227 | 181 | 240 | 180 | 190 | 220 | 1,880 | 639 | 820 | 206 | 160 | 120 |
| 14 | 224 | 284 | 240 | 175 | 190 | 240 | 1,780 | 643 | 828 | 191 | 137 | 107 |
| 15 | 221 | 284 | 240 | 175 | 185 | 265 | 1,660 | 680 | 816 | 189 | 131 | 98 |
| 16 | 221 | 284 | 245 | 175 | 180 | 290 | 1,510 | 725 | 832 | 186 | 125 | 100 |
| 17 | 219 | 281 | 245 | 174 | 180 | 305 | 1,360 | 740 | 816 | 191 | 123 | 104 |
| 18 | 211 | 288 | 240 | *173 | 175 | 315 | 1,260 | 732 | 740 | 201 | 121 | 111 |
| 19 | 189 | 288 | 230 | 175 | 175 | 330 | 1,170 | 721 | 695 | 206 | 118 | 111 |
| 20 | 186 | 280 | 225 | 170 | 175 | 335 | 1,080 | 725 | 636 | 199 | 116 | 107 |
| 21 | 186 | 290 | 225 | 170 | 170 | *277 | 1,030 | 725 | 564 | 201 | 114 | 107 |
| 22 | 189 | 210 | 220 | 170 | 165 | 285 | 1,000 | 658 | 515 | 196 | 109 | 107 |
| 23 | 189 | 200 | 220 | 170 | 160 | 290 | 970 | 621 | 501 | 191 | 90 | 109 |
| 24 | 191 | 270 | 220 | 170 | 160 | 305 | 918 | 614 | 481 | 184 | 87 | 112 |
| 25 | 194 | 270 | 215 | 165 | 165 | 325 | 883 | 593 | 450 | 179 | 87 | 114 |
| 26 | 201 | 270 | 215 | 165 | 165 | 340 | 879 | 611 | 423 | 172 | 85 | 112 |
| 27 | 206 | 260 | 210 | 165 | 165 | 380 | 894 | 654 | 397 | 165 | 85 | 112 |
| 28 | 219 | 250 | 205 | 160 | 165 | 400 | 910 | 747 | 377 | 160 | 82 | 112 |
| 29 | 230 | 250 | 200 | 160 | - | 410 | 898 | 747 | 361 | 156 | 80 | 111 |
| 30 | 232 | 250 | 200 | 160 | - | 470 | 863 | 763 | 345 | 152 | 80 | 112 |
| 31 | 240 | - | 195 | 180 | - | 550 | - | 852 | - | 158 | 79 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|-------|---------------------|
| October..... | 6,445 | 240 | 186 | 208 | 12,780 |
| November..... | 8,326 | 313 | 200 | 278 | 16,510 |
| December..... | 7,076 | 245 | 195 | 228 | 14,040 |
| Calendar year 1941..... | 111,342 | 1,680 | 125 | 305 | 220,800 |
| January..... | 5,448 | 190 | 160 | 176 | 10,810 |
| February..... | 5,075 | 195 | 160 | 181 | 10,070 |
| March..... | 8,422 | 550 | 165 | 272 | 16,700 |
| April..... | 41,125 | 2,280 | 700 | 1,371 | 81,570 |
| May..... | 21,449 | 852 | 593 | 692 | 42,540 |
| June..... | 20,702 | 902 | 345 | 690 | 41,060 |
| July..... | 6,751 | 332 | 152 | 216 | 13,300 |
| August..... | 5,779 | 174 | 79 | 122 | 7,500 |
| September..... | 2,914 | 114 | 76 | 97.1 | 5,780 |
| Water year 1941-42..... | 137,512 | 2,280 | 76 | 377 | 272,800 |

* Winter discharge measurement made on this day.

Note.- No gage-height record Nov. 20 to Apr. 3; discharge computed on basis of records at Stewart Dam and two winter measurements.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Bear River at Alexander, Idaho

Location.- Water-stage recorder, lat. 42°39', long. 111°42', in NW¼ sec. 17, T. 9 S., R. 41 E., 600 feet downstream from Soda hydroelectric plant of Utah Power & Light Co., half a mile southeast of Alexander, and 5 miles downstream from Soda Creek.

Drainage area.- 3,840 square miles.

Records available.- March 1911 to September 1916, April 1919 to September 1942.

Average discharge.- 27 years (1911-16, 1919-20, 1921-42), 758 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 1,220 second-feet July 23; minimum daily, 53 second-feet Nov. 30, Feb. 8.
1911-16, 1919-42: Maximum discharge, 4,590 second-feet May 9, 1922; maximum gage height, 15.95 feet Dec. 11, 1919; minimum discharge, 28 second-feet at times when reservoir gates are closed.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Many diversions above station for irrigation. Storage in Bear Lake Reservoir and regulation by Soda hydroelectric plant.

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

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|-------|-------|-------|-------|
| 1 | 189 | 346 | 256 | 176 | 139 | 165 | 214 | 688 | 599 | 516 | 910 | 910 |
| 2 | 236 | 214 | 295 | 430 | 419 | 428 | 285 | 610 | 661 | 764 | 920 | 825 |
| 3 | 190 | 390 | 320 | 452 | 394 | 275 | 430 | 268 | 531 | 517 | 1,030 | 905 |
| 4 | 279 | 434 | 345 | 327 | 312 | 294 | 400 | 712 | 654 | 393 | 1,060 | 815 |
| 5 | 137 | 369 | 190 | 458 | 155 | 277 | 350 | 676 | 669 | 471 | 910 | 770 |
| 6 | 187 | 376 | 190 | 460 | 130 | 199 | 645 | 875 | 539 | 783 | 800 | 373 |
| 7 | 312 | 540 | 105 | 450 | 147 | 194 | 762 | 695 | 506 | 808 | 890 | 678 |
| 8 | 254 | 448 | 235 | 380 | 58 | 74 | 754 | 493 | 956 | 954 | 815 | 871 |
| 9 | 293 | 267 | 315 | 405 | 435 | 232 | 781 | 426 | 955 | 1,050 | 680 | 890 |
| 10 | 116 | 371 | 260 | 400 | 245 | 231 | 652 | 387 | 733 | 1,120 | 990 | 831 |
| 11 | 225 | 390 | 235 | 290 | 208 | 299 | 544 | 808 | 869 | 1,000 | 1,000 | 795 |
| 12 | 205 | 397 | 235 | 315 | 96 | 396 | 327 | 860 | 1,010 | 1,080 | 945 | 558 |
| 13 | 408 | 510 | 165 | 400 | 140 | 257 | 633 | 300 | 682 | 1,020 | 1,000 | 230 |
| 14 | 448 | 438 | 190 | 335 | 140 | 205 | 751 | 127 | 611 | 1,060 | 1,000 | 629 |
| 15 | 388 | 421 | 235 | 329 | 148 | 163 | 749 | 283 | 871 | 1,060 | 857 | 651 |
| 16 | 267 | 114 | 295 | 350 | 249 | 276 | 536 | 145 | 823 | 1,130 | 514 | 720 |
| 17 | 263 | 174 | 194 | 268 | 468 | 232 | 472 | 146 | 760 | 1,080 | 889 | 787 |
| 18 | 261 | 316 | 260 | 211 | 540 | 718 | 255 | 197 | 670 | 875 | 1,010 | 704 |
| 19 | 199 | 279 | 300 | 369 | 469 | 307 | 293 | 309 | 640 | 546 | 880 | 566 |
| 20 | 333 | 99 | 215 | 409 | 448 | 285 | 485 | 299 | 585 | 1,010 | 1,010 | 237 |
| 21 | 369 | 245 | 235 | 420 | 167 | 238 | 538 | 406 | 521 | 1,060 | 993 | 654 |
| 22 | 364 | 30 | 230 | 363 | 195 | 604 | 387 | 755 | 1,120 | 879 | 363 | |
| 23 | 322 | 80 | 235 | 331 | 303 | 234 | 511 | 331 | 813 | 1,220 | 669 | 320 |
| 24 | 369 | 244 | 229 | 285 | 385 | 419 | 531 | 212 | 746 | 1,100 | 860 | 284 |
| 25 | 244 | 213 | 150 | 311 | 326 | 341 | 370 | 370 | 800 | 1,070 | 870 | 266 |
| 26 | 94 | 183 | 239 | 439 | 340 | 383 | 374 | 494 | 825 | 580 | 790 | 136 |
| 27 | 381 | 205 | 446 | 448 | 320 | 267 | 762 | 288 | 479 | 960 | 930 | 220 |
| 28 | 343 | 207 | 365 | 476 | 205 | 146 | 956 | 361 | 433 | 970 | 835 | 431 |
| 29 | 356 | 165 | 323 | 284 | - | 199 | 748 | 517 | 545 | 850 | 830 | 316 |
| 30 | 402 | 58 | 283 | 372 | - | 288 | 752 | 172 | 593 | 980 | 535 | 386 |
| 31 | 407 | - | 216 | 367 | - | 300 | - | 221 | - | 925 | 825 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 8,901 | 448 | 94 | 287 | 17,650 |
| November | 8,593 | 540 | 58 | 286 | 17,040 |
| December | 7,861 | 446 | 105 | 254 | 15,590 |
| Calendar year 1941 | 154,533 | 1,400 | 44 | 425 | 306,500 |
| January | 11,340 | 476 | 176 | 368 | 22,490 |
| February | 7,581 | 640 | 58 | 271 | 15,040 |
| March | 8,531 | 718 | 74 | 275 | 16,920 |
| April | 16,472 | 966 | 214 | 549 | 32,670 |
| May | 13,102 | 880 | 127 | 423 | 25,990 |
| June | 20,834 | 1,010 | 433 | 694 | 41,320 |
| July | 28,071 | 1,220 | 393 | 906 | 55,830 |
| August | 27,206 | 1,060 | 514 | 878 | 53,950 |
| September | 17,146 | 910 | 136 | 572 | 34,010 |
| Water year 1941-42 | 175,638 | 1,220 | 58 | 481 | 348,360 |

Note.- No gage-height record Nov. 21-23, Dec. 3-15, 16-23, Jan. 6-14, Apr. 2-6, July 18-22, July 26 to Aug. 14, Aug. 25 to Sept. 5; discharge computed on basis of output of hydroelectric plant 600 feet above station.

Time basis. Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Bear River near Weston, Idaho

Location.- Water-stage recorder, lat. 42°01'50", long. 111°55'15", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 16 S., R. 39 E., at Weston-Fairview highway bridge, 3 miles east of Weston.

Records available.- October 1919 to December 1932, February 1934 to September 1942. October 1889 to January 1917 at site near Preston, 12 miles upstream, published as Bear River near Preston, Idaho.

Average discharge.- 21 years (1919-32, 1934-42), 893 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 1,720 second-feet Apr. 28; minimum daily, 108 second-feet July 4. 1919-32, 1934-42: Maximum discharge, 6,100 second-feet May 8 or 9, 1922 (gage height, 12.1 feet, from floodmarks), from rating curve extended above 4,000 second-feet; minimum daily, 30 second-feet Apr. 29, 1934 and June 27, 1937.

Remarks.- Records poor. West Cache Canal and many irrigation ditches divert water above station. Storage in Bear Lake Reservoir and regulation by power plants above gage.

Cooperation.- Records furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|-------|-------|------|------|-------|-------|
| 1 | 311 | | 436 | | 514 | | 392 | 840 | 296 | 140 | 441 | 463 |
| 2 | 421 | | 371 | | 231 | | 469 | 830 | 750 | 244 | 914 | 864 |
| 3 | 268 | | 764 | | 584 | | 512 | 490 | 715 | 271 | 627 | 921 |
| 4 | 291 | | 606 | | 613 | | 984 | 730 | 719 | 106 | 784 | 661 |
| 5 | 386 | | 464 | | 365 | | 795 | 1,000 | 675 | 148 | 544 | 753 |
| 6 | 208 | | b595 | | 498 | | 760 | 1,290 | 501 | 203 | 715 | 501 |
| 7 | 246 | | b375 | | 365 | | 1,030 | 795 | 223 | 277 | 709 | 476 |
| 8 | 411 | | b395 | | 534 | | 1,080 | 1,140 | 469 | 310 | 531 | 404 |
| 9 | 445 | | b570 | | 826 | | 1,050 | 1,010 | 577 | 371 | 416 | 746 |
| 10 | 439 | | b550 | | 404 | | 1,210 | 770 | 473 | 702 | 344 | 719 |
| 11 | 421 | | b425 | | 271 | | 1,250 | 524 | 395 | 678 | 767 | 641 |
| 12 | 194 | 520 | b370 | b590 | 395 | | 1,210 | 952 | 401 | 544 | 590 | 812 |
| 13 | 332 | | b375 | | b522 | | 914 | 1,110 | 435 | 392 | 802 | 511 |
| 14 | 489 | | b430 | | | | 1,100 | 1,060 | 157 | 722 | 473 | 534 |
| 15 | 411 | | b520 | | | b554 | 1,290 | 864 | 114 | 826 | 661 | 739 |
| 16 | 374 | | b470 | | | | 1,000 | 678 | 263 | 610 | 688 | 719 |
| 17 | 450 | | 414 | | | | 753 | 528 | 289 | 607 | 457 | 764 |
| 18 | 335 | | 566 | | | | 1,180 | 603 | 330 | 466 | 698 | 722 |
| 19 | 435 | | 430 | | | | 924 | 732 | 557 | 675 | 802 | 441 |
| 20 | 405 | | 553 | | | | 770 | 1,000 | 310 | 719 | 956 | 271 |
| 21 | 530 | | 521 | | b525 | | 886 | 784 | 327 | 610 | 935 | 457 |
| 22 | 785 | | 563 | | | | 952 | 570 | 189 | 837 | 834 | 385 |
| 23 | 710 | 510 | 556 | | | | 1,070 | 664 | 321 | 872 | 435 | 511 |
| 24 | 645 | 500 | b408 | | | | 974 | 613 | 392 | 886 | 416 | 327 |
| 25 | 505 | 483 | b300 | b597 | | | 750 | 590 | 463 | 627 | 750 | 363 |
| 26 | 225 | 476 | b495 | b600 | | | 798 | 956 | 834 | 960 | 541 | 395 |
| 27 | 230 | 464 | b875 | b600 | | | 988 | 1,100 | 514 | 392 | 868 | 383 |
| 28 | 495 | 341 | b855 | b600 | | | 1,720 | 826 | 425 | 296 | 991 | 333 |
| 29 | 755 | 430 | b615 | 587 | - | | 1,250 | 574 | 249 | 386 | 1,010 | 365 |
| 30 | 620 | 356 | b505 | 441 | - | | 840 | 444 | 184 | 705 | 627 | 307 |
| 31 | 425 | - | b485 | 705 | - | 740 | - | 184 | - | 702 | 350 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 13,197 | 785 | 194 | 486 | 26,180 |
| November | 15,000 | - | - | 500 | 29,750 |
| December | 16,864 | 875 | 300 | 512 | 31,470 |
| Calendar year 1941 | 188,296 | 1,160 | 41 | 516 | 373,500 |
| January | 18,290 | - | - | 590 | 36,280 |
| February | 14,000 | - | - | 500 | 27,770 |
| March | 17,360 | - | - | 560 | 34,430 |
| April | 29,201 | 1,720 | 392 | 973 | 57,920 |
| May | 24,241 | 1,290 | 184 | 782 | 48,080 |
| June | 12,515 | 834 | 114 | 417 | 24,820 |
| July | 16,284 | 960 | 106 | 525 | 32,300 |
| August | 20,656 | 1,010 | 344 | 666 | 40,970 |
| September | 16,276 | 921 | 271 | 543 | 32,280 |
| Water year 1941-42 | 212,884 | 1,720 | 106 | 583 | 422,200 |

b Stage-discharge relation affected by ice.
 Note.- No gage-height record Oct. 17 to Mar. 25, Apr. 28 to May 6; discharge computed on basis of unpublished records for station at Oneida.
 Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.
 To convert war time to standard time, subtract 1 hour.

Bear River near Collinston, Utah

Location.- Water-stage recorder, lat. 41°50', long. 112°03', in NW¼ sec. 27, T. 13 N., R. 2 W., 800 feet downstream from Cutler plant of Utah Power & Light Co., 2,000 feet downstream from Cutler Dam, and 5½ miles north of Collinston.

Drainage area.- 6,000 square miles.

Records available.- July 1889 to September 1942.

Extremes.- Maximum discharge during year, 3,800 second-feet (regulated) May 25 (gage height, 4.93 feet); minimum daily discharge, 17 second-feet (regulated) Mar. 8.

1889-1942: Maximum discharge observed, 11,600 second-feet June 7-10, 1909 (gage height, 7.70 feet, site and datum then in use); practically no flow (result of regulation) at midnight Aug. 5, 1920.

Remarks.- Records good. Many canals divert above station. Flow regulated by reservoirs and power plants above station.

Cooperation.- Five discharge measurements furnished by Utah Power & Light Co.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|-----|-----|-------|-----|-------|
| 0.2 | 7 | 1.5 | 297 | 3.5 | 2,030 |
| .4 | 16 | 1.8 | 460 | 4.0 | 2,640 |
| .6 | 37 | 2.0 | 591 | 4.5 | 3,290 |
| .8 | 70 | 2.3 | 819 | 5.0 | 3,990 |
| 1.0 | 115 | 2.6 | 1,080 | 5.5 | 4,720 |
| 1.3 | 211 | 3.0 | 1,470 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|
| 1 | 672 | 662 | 723 | 576 | 1,340 | 304 | 2,870 | 2,810 | 1,630 | 20 | 22 | 32 |
| 2 | 401 | 454 | 774 | 1,070 | 1,300 | 1,530 | 2,610 | 1,840 | 1,670 | 32 | 22 | 33 |
| 3 | 283 | 946 | 1,000 | 983 | 1,290 | 1,070 | 2,800 | 1,700 | 1,280 | 23 | 22 | 31 |
| 4 | 475 | 1,160 | 1,260 | 872 | 929 | 1,220 | 2,720 | 1,660 | 1,440 | 27 | 22 | 32 |
| 5 | 20 | 1,140 | 1,880 | 545 | 945 | 1,310 | 3,110 | 1,670 | 1,560 | 37 | 29 | 35 |
| 6 | 695 | 1,140 | 1,780 | 658 | 1,350 | 1,300 | 2,670 | 1,900 | 718 | 52 | 20 | 31 |
| 7 | 1,150 | 504 | 736 | 945 | 1,410 | 514 | 2,950 | 1,620 | 57 | 74 | 21 | 21 |
| 8 | 1,060 | 551 | 1,090 | 975 | 1,160 | 17 | 2,810 | 2,420 | 671 | 20 | 23 | 21 |
| 9 | 1,230 | 762 | 743 | 1,240 | 1,690 | 1,650 | 2,800 | 2,350 | 137 | 20 | 22 | 21 |
| 10 | 607 | 1,160 | 909 | 448 | 1,400 | 1,400 | 2,720 | 1,820 | 390 | 36 | 20 | 20 |
| 11 | 772 | 648 | 785 | 35 | 967 | 1,520 | 2,720 | 2,280 | 202 | 26 | 20 | 21 |
| 12 | 943 | 1,490 | 733 | 918 | 454 | 1,260 | 2,980 | 1,850 | 30 | 30 | 20 | 22 |
| 13 | 242 | 1,300 | 1,030 | 957 | 1,480 | 1,900 | 2,980 | 1,860 | 35 | 24 | 20 | 27 |
| 14 | 789 | 972 | 788 | 903 | 1,130 | 2,160 | 2,860 | 1,720 | 22 | 59 | 20 | 23 |
| 15 | 1,080 | 368 | 656 | 1,240 | 563 | 1,540 | 2,880 | 2,120 | 22 | 67 | 19 | 23 |
| 16 | 371 | 525 | 834 | 936 | 1,410 | 1,690 | 2,640 | 2,790 | 21 | 85 | 19 | 22 |
| 17 | 526 | 554 | 697 | 323 | 1,870 | 2,840 | 2,940 | 2,090 | 37 | 35 | 20 | 22 |
| 18 | 20 | 816 | 1,180 | 693 | 523 | 1,360 | 2,650 | 2,330 | 40 | 26 | 20 | 22 |
| 19 | 20 | 1,230 | 991 | 1,210 | 1,130 | 1,860 | 2,310 | 2,300 | 25 | 24 | 19 | 22 |
| 20 | 999 | 777 | 710 | 1,270 | 8900 | 1,930 | 2,670 | 2,020 | 25 | 29 | 19 | 22 |
| 21 | 1,240 | 847 | 982 | 278 | 830 | 1,580 | 2,950 | 1,990 | 27 | 19 | 19 | 22 |
| 22 | 1,480 | 574 | 781 | 985 | 860 | 1,330 | 2,180 | 2,000 | 29 | 37 | 20 | 114 |
| 23 | 1,730 | 73 | 1,050 | 875 | 1,440 | 1,600 | 2,190 | 2,350 | 31 | 35 | 20 | 516 |
| 24 | 1,540 | 1,100 | 775 | 803 | 1,890 | 1,730 | 2,720 | 1,890 | 32 | 48 | 20 | 351 |
| 25 | 1,480 | 1,010 | 736 | 968 | 1,530 | 1,820 | 2,970 | 2,410 | 37 | 26 | 19 | 285 |
| 26 | 810 | 1,170 | 970 | 1,210 | 1,180 | 2,100 | 2,540 | 2,420 | 38 | 23 | 19 | 372 |
| 27 | 786 | 955 | 1,770 | 1,530 | 922 | 2,230 | 2,530 | 2,420 | 31 | 36 | 24 | 20 |
| 28 | 596 | 779 | 825 | 1,150 | 1,020 | 2,590 | 2,000 | 2,720 | 29 | 42 | 21 | 498 |
| 29 | 347 | 449 | 1,340 | 994 | - | 2,370 | 2,560 | 2,920 | 42 | 25 | 22 | 702 |
| 30 | 761 | 98 | 1,240 | 1,770 | - | 2,710 | 2,710 | 2,620 | 23 | 21 | 23 | 41 |
| 31 | 1,040 | - | 1,170 | 1,820 | - | 2,930 | - | 2,300 | - | 21 | 25 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October | 24,165 | 1,730 | 20 | 780 | 47,930 |
| November | 25,560 | 1,520 | 73 | 852 | 50,700 |
| December | 31,095 | 1,680 | 656 | 1,003 | 61,680 |
| Calendar year 1941 | 266,517 | 2,610 | 15 | 730 | 528,600 |
| January | 29,234 | 1,820 | 35 | 943 | 57,980 |
| February | 30,916 | 1,890 | 330 | 1,104 | 61,320 |
| March | 50,365 | 2,930 | 17 | 1,625 | 99,900 |
| April | 80,140 | 3,110 | 2,000 | 2,671 | 159,000 |
| May | 66,960 | 2,920 | 1,520 | 2,160 | 132,800 |
| June | 10,301 | 1,670 | 21 | 343 | 20,430 |
| July | 1,089 | 87 | 19 | 35 | 2,180 |
| August | 651 | 29 | 19 | 21 | 1,290 |
| September | 3,462 | 702 | 20 | 115 | 6,850 |
| Water year 1941-42 | 353,936 | 3,110 | 17 | 970 | 702,100 |

a No gage-height record; discharge computed on basis of output of power plant.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.

To convert war time to standard time, subtract 1 hour.

Thomas Fork near Geneva, Idaho

Location.- Water-stage recorder, lat. 42°23'30", long. 110°59'00", in NE¼ sec. 28, T. 28 N., R. 119 W., in Wyoming, 0.8 mile upstream from Salt Creek, 3.7 miles east of Idaho-Wyoming State line, and 5.4 miles northeast of Geneva post office.

Records available.- October 1939 to September 1942.

Extremes.- Maximum discharge during year 122 second-feet Apr. 5 (gage height, 3.19 feet), from rating extended above 60 second-feet; minimum, not determined.
1939-42: Maximum discharge, that of Apr. 5, 1942; minimum, not determined.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Practically no diversions above station; no regulation. Many diversions below station, near State line, for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|-------|------|-----|------|------|------|-------|
| 1 | 3.4 | 3.3 | 2.5 | | | | 6.5 | 18 | a25 | a10 | 3.3 | 2.0 |
| 2 | 3.6 | 3.8 | 2.7 | | | | 15 | 19 | | a9.0 | 3.4 | 1.9 |
| 3 | 3.3 | 3.8 | 3.4 | | | | 28 | 17 | | a5.5 | 3.3 | 1.9 |
| 4 | 3.3 | 6.2 | | | (*) | | 47 | 18 | | a8.5 | 3.3 | 1.9 |
| 5 | 5.2 | 4.5 | | | 2.5 | | 86 | 18 | | a6.0 | 3.1 | 2.0 |
| 6 | 4.1 | 3.8 | | | | 2.3 | 64 | 17 | | a7.5 | 3.1 | 2.0 |
| 7 | 3.8 | 3.5 | | | | | 64 | 17 | 19 | a7.0 | 3.1 | 1.8 |
| 8 | 3.8 | 3.1 | | | | | 60 | 18 | 19 | a7.0 | 3.1 | 1.8 |
| 9 | 3.6 | 3.4 | (*) | | | | 62 | 19 | 18 | a6.5 | 3.1 | 1.7 |
| 10 | 3.4 | 3.3 | | | | | 54 | 19 | 18 | a6.5 | 2.9 | 1.7 |
| 11 | 3.3 | 3.1 | | | | | 50 | 20 | 17 | 6.2 | 3.3 | 1.8 |
| 12 | 3.4 | 3.1 | | | | | 36 | 22 | 17 | 5.3 | 4.1 | 2.5 |
| 13 | 4.8 | 3.4 | | | | | 30 | 22 | 16 | 5.5 | 3.1 | 2.5 |
| 14 | 3.6 | 3.4 | | | | | 28 | 22 | 15 | 5.2 | 2.9 | 2.0 |
| 15 | 3.3 | 3.4 | | | | | 24 | 22 | 16 | 4.8 | 2.9 | 1.9 |
| 16 | 3.3 | 3.1 | | 2.3 | | | 18 | 28 | 17 | 4.8 | 2.7 | 1.9 |
| 17 | 3.3 | *3.6 | 2.5 | | | | 21 | 29 | 16 | 4.8 | 2.5 | 1.8 |
| 18 | 3.1 | 3.6 | | | | | 21 | 26 | 14 | 4.8 | 2.5 | 1.8 |
| 19 | 3.3 | 2.9 | | | 2.3 | | 19 | 27 | 13 | 4.5 | 2.5 | 1.8 |
| 20 | 3.3 | 3.1 | | | | | 20 | a28 | 13 | 4.5 | 2.5 | 1.9 |
| 21 | 3.4 | 2.7 | | | | a3.0 | 22 | a29 | 13 | 4.1 | 2.5 | 1.9 |
| 22 | 3.4 | 2.5 | | | | a3.2 | 25 | | 13 | 3.8 | 2.4 | 1.8 |
| 23 | 3.3 | 2.7 | | | | *a3.4 | 25 | | 12 | 3.8 | 2.2 | 1.8 |
| 24 | 3.3 | 2.7 | | | | 3.4 | 23 | | 12 | 3.6 | 2.2 | 1.8 |
| 25 | 3.8 | 3.1 | | | | 3.3 | 22 | a30 | 12 | 3.6 | 2.2 | 1.8 |
| 26 | 3.6 | 3.1 | | | | 3.1 | 20 | | 12 | 3.6 | 2.2 | 1.8 |
| 27 | 3.4 | 3.1 | | | | 3.1 | 18 | | a11 | 3.6 | 2.2 | 1.8 |
| 28 | 3.6 | 2.5 | | | | 3.3 | 20 | | a11 | 3.6 | 2.0 | 1.8 |
| 29 | 3.6 | 2.7 | | | | 3.6 | 20 | | a11 | 3.4 | 2.2 | 1.8 |
| 30 | 3.1 | 2.5 | | | | 3.8 | 19 | a25 | a10 | 3.4 | 2.0 | 1.8 |
| 31 | 3.1 | . | | | | 4.8 | - | | - | 3.4 | 2.0 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 109.8 | 5.2 | 3.1 | 3.54 | 218 |
| November..... | 98.8 | 6.2 | 2.5 | 3.29 | 196 |
| December..... | 78.6 | - | - | 2.54 | 156 |
| Calendar year 1941..... | 3,243.5 | 57 | - | 8.96 | 6,440 |
| January..... | 71.3 | - | - | 2.30 | 141 |
| February..... | 66.0 | - | - | 2.56 | 131 |
| March..... | 86.0 | 4.8 | - | 2.77 | 171 |
| April..... | 967.5 | 86 | 6.5 | 32.2 | 1,920 |
| May..... | 740 | - | 17 | 23.9 | 1,470 |
| June..... | 474 | - | 10 | 15.8 | 940 |
| July..... | 189.3 | 10 | 3.4 | 5.46 | 336 |
| August..... | 84.8 | 4.1 | 2.0 | 2.74 | 163 |
| September..... | 56.7 | 2.5 | 1.7 | 1.89 | 112 |
| Water year 1941-42..... | 3,002.8 | 86 | - | 8.23 | 5,960 |

* Winter discharge measurement made on this day.
No gage-height record; discharge computed on basis of discharge measurement of Mar. 23, weather records, and records for nearby streams.

Note.- Stage-discharge relation affected by ice Dec. 4 to Mar. 20 (no gage-height record Jan. 4 to Mar. 20; discharge computed on basis of discharge measurements of Feb. 3 and Mar. 23, weather records, and records for nearby streams).

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Salt Creek near Geneva, Idaho

Location.- Water-stage recorder, lat. 42°24'00", long. 110°59'30", in NW¼ sec. 21, T. 25 N., R. 119 W., in Wyoming, 800 feet upstream from bridge on U. S. Highway 89, 1,000 feet upstream from mouth, 3.0 miles east of Idaho-Wyoming State line, and ¼ miles northeast of Geneva post office.

Records available.- October 1939 to September 1942.

Extremes.- Maximum discharge during year, 73 second-feet May 24; maximum gage height, 2.62 feet May 22, caused by obstruction; minimum, 1.0 second-foot Mar. 25 (gage height, 1.14 feet).

1939-42: Maximum discharge, 110 second-feet May 12, 1941 (gage height, 3.02 feet); minimum, 0.5 second-foot Aug. 18, 1940 (gage height, 1.05 feet).

Remarks.- Records good except those for periods of ice effect and no gage-height record, which are fair. Several small irrigation diversions from stream and tributaries above station. No diversion between station and Thomas Fork.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|-------|------|------|-----|------|------|------|-------|
| 1 | 4.8 | 4.2 | 3.8 | | b3.2 | | 4.0 | 36 | 47 | 17 | 5.1 | 3.2 |
| 2 | 5.4 | 4.6 | 3.6 | | b3.2 | | 4.8 | 36 | 44 | 16 | 4.8 | 2.9 |
| 3 | 4.5 | 4.5 | 4.4 | | *b3.2 | | 5.5 | 34 | 42 | 15 | 4.8 | 2.9 |
| 4 | 4.6 | 6.4 | | | 3.2 | | 9.9 | 36 | 41 | 15 | 4.6 | 3.1 |
| 5 | 6.4 | 4.8 | | | 3.2 | | 16 | 35 | 39 | 14 | 4.4 | 3.1 |
| 6 | 5.6 | 5.4 | | | 3.1 | | 16 | 35 | 38 | 13 | 4.4 | 3.1 |
| 7 | 5.1 | 4.0 | | | 3.2 | | 19 | 37 | 36 | 12 | 4.4 | 3.1 |
| 8 | 5.4 | 4.6 | | | 3.2 | | 22 | 41 | 35 | 12 | 4.4 | 2.7 |
| 9 | 4.8 | 4.6 | (*) | | | | 26 | 45 | 34 | 11 | 4.2 | 2.6 |
| 10 | 4.6 | 4.2 | | | | | 31 | 46 | 33 | 11 | 4.2 | 2.4 |
| 11 | 4.4 | 4.0 | | | | | 34 | 48 | 31 | 10 | 4.6 | 2.7 |
| 12 | 4.6 | 4.2 | | | | b2.9 | 37 | 50 | 30 | 9.6 | 6.4 | 4.2 |
| 13 | 6.1 | 4.2 | | | | | 40 | 48 | 30 | 9.2 | 4.8 | 4.6 |
| 14 | 5.1 | 4.0 | | | | | 47 | 46 | 28 | 8.9 | 4.6 | 3.6 |
| 15 | 4.8 | 4.0 | | | | | 42 | 47 | 28 | 8.6 | 4.4 | 3.4 |
| 16 | 4.6 | 4.0 | | b2.8 | | | 37 | 53 | 29 | 8.6 | 4.0 | 3.2 |
| 17 | 4.4 | *4.4 | b3.0 | | | | 43 | 52 | 26 | 8.2 | 3.8 | 3.1 |
| 18 | 4.4 | 4.4 | | | | b2.8 | 42 | 52 | 24 | 8.6 | 3.8 | 3.1 |
| 19 | 4.4 | 4.0 | | | | | 39 | 55 | 24 | 7.9 | 3.8 | 3.2 |
| 20 | 4.4 | b3.2 | | | | | 45 | 60 | 24 | 7.6 | 3.6 | 3.4 |
| 21 | 4.4 | b3.2 | | | | | 56 | 64 | 22 | 7.5 | 3.8 | 3.4 |
| 22 | 4.4 | b3.2 | | | | | 61 | 63 | 22 | 7.0 | 3.6 | 3.2 |
| 23 | 4.2 | 3.2 | | | | (*) | 57 | 71 | 21 | 6.4 | 3.4 | 3.2 |
| 24 | 4.2 | 3.1 | | | | 3.1 | 50 | 71 | 20 | 6.1 | 3.2 | 3.1 |
| 25 | 4.8 | 3.2 | | | | 3.1 | 45 | 68 | 19 | 6.1 | 3.4 | 3.1 |
| 26 | 4.8 | 3.4 | | | | 3.2 | 42 | 66 | 19 | 5.8 | 3.8 | 2.9 |
| 27 | 4.6 | 3.2 | | | | b3.2 | 39 | 64 | 20 | 6.1 | 3.4 | 3.1 |
| 28 | 4.6 | 3.8 | | | | b3.2 | 40 | 59 | 20 | 6.1 | 3.1 | 3.1 |
| 29 | 4.4 | 3.8 | | | | b3.5 | 39 | 55 | 19 | 5.8 | 3.2 | 3.1 |
| 30 | 4.2 | 3 | | | | b3.5 | 37 | 62 | 17 | 5.8 | 3.6 | 2.9 |
| 31 | 4.2 | 3.8 | | | | b3.5 | - | 50 | - | 5.4 | 3.4 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 147.5 | 6.4 | 4.2 | 4.76 | 293 |
| November | 122.5 | 6.4 | 3.1 | 4.08 | 243 |
| December | 95.8 | - | - | 3.09 | 190 |
| Calendar year 1941 | 4,377.1 | 98 | - | 12.0 | 8,680 |
| January | 86.8 | - | - | 2.60 | 172 |
| February | 31.5 | - | - | 2.91 | 162 |
| March | 93.0 | - | - | 3.00 | 184 |
| April | 1,026.5 | 61 | 4.0 | 34.2 | 2,040 |
| May | 1,582 | 71 | 3.4 | 51.0 | 3,140 |
| June | 862 | 47 | 1.7 | 28.7 | 1,710 |
| July | 291.1 | 17 | 5.4 | 9.39 | 577 |
| August | 127.0 | 5.1 | 3.1 | 4.10 | 262 |
| September | 94.7 | 4.6 | 2.4 | 3.16 | 188 |
| Water year 1941-42 | 4,610.4 | 71 | - | 12.6 | 9,150 |

* Winter discharge measurement made this day.

b Stage-discharge relation affected by ice (no gage-height record Jan. 18 to Feb. 2, Mar. 15-22. Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Montpelier Creek near Montpelier, Idaho

Location.- Water-stage recorder, lat. 42°21', long. 111°11', in NE¼ sec. 34, T. 12 S., R. 45 E., 150 feet upstream from bridge on U. S. highway 89, 275 feet upstream from South Fork, and 6.8 miles northeast of Montpelier. Datum of gage is 6,427.46 feet above mean sea level, adjustment of 1912.

Drainage area.- 28.2 square miles.

Records available.- November 1939 to September 1942.

Extremes.- Maximum discharge during year, 53 second-feet Apr. 12 (gage height, 2.23 feet), from rating curve extended above 30 second-feet; minimum recorded, 1.5 second-feet Mar. 28, 29, but may have been less during period of ice effect.
1939-42: Maximum discharge, that of Apr. 12, 1942; minimum recorded, that of Mar. 28, 29, 1942.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. One irrigation diversion from tributary about 2 miles above station. Many irrigation diversions below.

Cooperation.- Water-stage recorder inspected by employee of the local irrigation association. Result of one discharge measurement furnished by U. S. Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 5.9 | 5.7 | 4.7 | | 4.2 | | 4.9 | 21 | 21 | 13 | 5.9 | a4.1 |
| 2 | 6.1 | 5.7 | 4.7 | | b4.2 | | 5.7 | 20 | 21 | 13 | 5.7 | a4.0 |
| 3 | 6.1 | a5.7 | 5.1 | | *4.2 | | 6.7 | 20 | 20 | 13 | 5.5 | a4.0 |
| 4 | 6.1 | a8. | | | 4.0 | | 9.5 | 20 | 20 | 12 | 5.5 | a4.4 |
| 5 | 6.7 | a6.5 | | | 4.0 | | 15 | 20 | 20 | 12 | 5.5 | a4.4 |
| 6 | 6.7 | 6.3 | | | 4.2 | | 15 | 19 | 20 | 9.5 | 5.1 | 4.4 |
| 7 | 6.5 | 5.9 | | | 4.4 | | 18 | 19 | 20 | 10 | 4.9 | 4.2 |
| 8 | 6.1 | 5.7 | | | 4.4 | | 22 | 19 | 19 | 10 | 4.9 | 4.2 |
| 9 | 6.1 | 5.9 | (*) | | | | 26 | 19 | 18 | 10 | 4.7 | 4.0 |
| 10 | 6.1 | 5.5 | | | | | 34 | 18 | 18 | 10 | 4.7 | 4.2 |
| 11 | 5.9 | 5.5 | | | | | 39 | 19 | 18 | 10 | 5.5 | 4.4 |
| 12 | 5.7 | 5.5 | | | | | 42 | 20 | 18 | 8.9 | 6.5 | 5.3 |
| 13 | 8.2 | *5.5 | | | | | 40 | 19 | 18 | 8.9 | 5.5 | 5.1 |
| 14 | 6.7 | 5.3 | | | | b5.8 | 42 | 18 | 18 | 8.7 | 5.1 | 4.9 |
| 15 | 6.3 | 5.3 | | b5.6 | | | 37 | 18 | 18 | 8.7 | 5.1 | 4.7 |
| 16 | 6.1 | 5.1 | | | | | 32 | 20 | 19 | 8.7 | 4.9 | 4.7 |
| 17 | 5.9 | 5.5 | b5.9 | | | | 35 | 20 | 18 | 8.9 | 4.5 | 4.7 |
| 18 | 5.9 | 5.7 | | | | | 31 | 19 | 17 | 8.9 | 4.9 | 4.9 |
| 19 | 5.7 | 5.7 | | | b3.6 | | 39 | 20 | 16 | 8.7 | 4.7 | 5.5 |
| 20 | 5.7 | 4.5 | | | | | 29 | 19 | 16 | 8.2 | 4.5 | a5.5 |
| 21 | 5.9 | 4.2 | | | | | 29 | 19 | 16 | 7.9 | 4.2 | a5.5 |
| 22 | 5.9 | a4.5 | | | | | 28 | 20 | 15 | 7.9 | 4.2 | a5.0 |
| 23 | 5.7 | b4.5 | | | | (*) | 26 | 20 | 15 | 7.9 | 3.9 | a5.0 |
| 24 | 5.5 | b4.5 | | | | | 25 | 21 | 15 | 7.2 | 4.0 | a4.5 |
| 25 | 5.9 | b4.5 | | | | | 25 | 19 | 15 | 7.2 | 4.2 | a4.0 |
| 26 | 5.5 | b4.5 | | | | | 22 | 20 | 15 | 7.0 | 4.9 | a4.0 |
| 27 | 5.5 | b4.5 | | | | 4.0 | 21 | 21 | 15 | 6.7 | 4.4 | 3.9 |
| 28 | 5.7 | b4.5 | | | | 3.9 | 22 | 21 | 15 | 6.7 | 4.2 | 4.0 |
| 29 | 5.7 | b4.5 | | | | 4.4 | 22 | 22 | 14 | 6.5 | 4.4 | 4.0 |
| 30 | 5.5 | 4.7 | | | | 4.4 | 21 | 22 | 14 | 6.3 | 4.5 | 4.0 |
| 31 | 5.5 | - | | | | 4.4 | - | 22 | - | 6.1 | a4.5 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 186.8 | 8.2 | 5.5 | 6.03 | 371 |
| November | 159.4 | 8 | 4.2 | 5.31 | 316 |
| December | 123.7 | - | - | 3.99 | 245 |
| Calendar year 1941 | 3,562.7 | 38 | - | 9.75 | 7,060 |
| January | 111.6 | - | - | 3.60 | 221 |
| February | 106.6 | - | - | 3.77 | 209 |
| March | 119.9 | - | - | 3.67 | 238 |
| April | 749.8 | 42 | 4.9 | 25.0 | 1,490 |
| May | 614 | 22 | 18 | 19.6 | 1,280 |
| June | 522 | 21 | 14 | 17.4 | 1,040 |
| July | 278.5 | 13 | 6.1 | 8.98 | 552 |
| August | 150.5 | 6.5 | 3.9 | 4.86 | 299 |
| September | 135.5 | 5.5 | 3.9 | 4.52 | 269 |
| Water year 1941-42 | 3,257.4 | 42 | - | 8.92 | 6,470 |

* Winter discharge measurements made on this day.

a No gage-height record; discharge computed on basis of records for Salt Creek near Geneva.

b Stage-discharge relation affected by ice (no gage-height record Dec. 7-20, Jan. 5, 6; gage-height record doubtful Jan. 12-31).

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.

To convert war time to standard time, subtract 1 hour.

Georgetown Creek near Georgetown, Idaho

Location.- Water-stage recorder, lat. 42°30', long. 111°19', in NE¼ sec. 4, T. 11 S., N. 44 E., 150 feet downstream from Little Right Hand Fork, and 3 miles northeast of Georgetown.

Drainage area.- 22.2 square miles.

Records available.- November 1939 to September 1942. October 1911 to September 1914, fragmentary records collected at site 0.7 mile downstream just below power plant (now inoperative).

Extremes.- Maximum discharge during year, 34 second-feet May 28 and June 1-15; maximum gage height, 1.80 feet May 24; minimum discharge, 19 second-feet Mar. 30, 31, Apr. 1 (gage height, 1.24 feet).

1939-42: Maximum discharge, 43 second-feet Aug. 12, 1941, from rating curve extended above 30 second-feet; maximum gage height, 1.80 feet May 24, 1942; minimum daily, 18 second-feet many days February to May 1941.

Remarks.- Records good except those for period of backwater, which are fair. No diversions above station; many irrigation diversions below. At one time a small storage reservoir was operated about 1½ miles above station but dam is now breached and no longer operative.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 25 | 24 | 22 | 22 | 21 | 20 | 20 | 24 | 33 | 29 | 26 | 25 |
| 2 | 25 | 24 | 22 | 22 | 21 | 20 | 20 | 24 | 33 | 29 | 26 | 25 |
| 3 | 25 | 24 | 23 | a22 | 20 | 20 | 20 | 24 | 33 | 29 | 26 | 25 |
| 4 | 25 | 24 | 23 | 22 | 20 | 20 | 20 | 25 | 34 | 28 | 26 | 24 |
| 5 | 25 | 24 | 22 | 22 | 21 | 20 | 20 | 25 | 34 | 28 | 26 | 24 |
| 6 | 25 | 24 | 22 | 21 | 21 | 20 | 20 | 25 | 34 | 28 | 26 | 24 |
| 7 | 25 | 24 | 22 | 21 | 20 | 20 | 20 | 25 | 34 | 28 | 26 | 24 |
| 8 | 25 | 24 | 22 | 22 | 20 | 20 | 21 | 25 | 34 | 27 | 26 | 24 |
| 9 | 25 | 24 | 22 | 22 | 20 | 20 | 21 | 25 | 34 | 27 | 26 | 24 |
| 10 | 24 | 24 | 22 | 21 | 20 | 20 | 21 | 25 | 33 | 27 | 26 | 25 |
| 11 | 24 | a24 | 22 | 21 | 20 | 20 | 21 | 26 | 33 | 26 | 27 | 25 |
| 12 | 24 | a24 | 22 | 21 | 21 | 20 | 21 | 26 | 33 | 27 | 26 | 26 |
| 13 | 24 | h24 | 22 | 21 | 21 | 20 | 21 | 26 | 33 | 27 | 26 | 25 |
| 14 | 24 | a24 | 22 | 21 | 21 | 20 | 21 | 26 | 34 | 27 | 26 | 25 |
| 15 | 24 | h24 | 22 | 21 | 21 | 20 | 21 | 26 | 34 | 27 | 26 | 25 |
| 16 | 24 | a24 | 21 | 21 | 21 | 20 | 21 | 26 | 33 | 28 | 26 | 25 |
| 17 | 24 | 23 | 22 | 21 | 21 | 20 | 21 | 26 | 32 | 27 | 26 | 25 |
| 18 | 24 | 23 | 22 | 21 | a21 | 20 | 22 | 26 | 32 | 27 | 26 | 25 |
| 19 | 24 | 23 | 22 | 21 | e21 | 20 | 22 | 26 | 32 | 27 | 26 | 24 |
| 20 | 24 | 23 | 22 | 21 | a21 | 20 | 23 | 26 | 32 | 26 | 26 | 24 |
| 21 | 24 | 23 | 22 | 21 | a21 | 20 | 25 | 27 | 32 | 26 | 26 | 24 |
| 22 | 24 | 23 | 22 | 21 | 21 | 20 | 24 | 27 | 31 | 26 | 26 | 24 |
| 23 | 24 | 23 | 22 | 21 | 21 | 20 | 24 | 28 | 30 | 26 | 26 | 24 |
| 24 | 24 | 23 | 22 | 21 | 20 | 20 | 24 | 28 | 30 | 26 | 26 | 24 |
| 25 | 24 | 23 | 22 | 21 | 20 | 20 | 24 | 29 | 30 | 26 | 25 | 24 |
| 26 | 24 | 23 | 22 | 21 | 20 | 20 | 24 | 32 | 31 | 26 | 25 | 24 |
| 27 | 24 | 23 | 22 | 21 | 20 | 20 | 24 | 32 | 31 | 26 | 25 | 24 |
| 28 | 24 | 23 | 22 | 21 | 20 | 20 | 24 | 33 | 30 | 27 | 25 | 24 |
| 29 | 24 | 23 | 22 | 21 | - | 20 | 24 | 32 | 30 | 27 | 25 | 24 |
| 30 | 24 | 22 | 22 | 21 | - | 20 | 24 | 32 | 30 | 26 | 25 | 24 |
| 31 | 24 | - | 22 | 21 | - | 19 | - | 32 | - | 26 | 25 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 753 | 25 | 24 | 24.3 | 1,490 |
| November..... | 705 | 24 | 22 | 23.5 | 1,400 |
| December..... | 683 | 23 | 21 | 22.0 | 1,350 |
| Calendar year 1941..... | 8,500 | 32 | 18 | 23.3 | 16,966 |
| January..... | 659 | 22 | 21 | 21.2 | 1,310 |
| February..... | 576 | 21 | 20 | 20.6 | 1,140 |
| March..... | 619 | 20 | 19 | 20.0 | 1,230 |
| April..... | 656 | 24 | 20 | 21.9 | 1,300 |
| May..... | 839 | 33 | 24 | 27.1 | 1,666 |
| June..... | 969 | 34 | 30 | 32.3 | 1,920 |
| July..... | 837 | 29 | 26 | 27.0 | 1,580 |
| August..... | 800 | 27 | 25 | 25.8 | 1,590 |
| September..... | 733 | 26 | 24 | 24.4 | 1,450 |
| Water year 1941-42..... | 8,828 | 34 | 19 | 24.2 | 17,500 |

a No gage-height record; discharge interpolated.

b Computed from staff gage readings.

Note.- Discharge for period of backwater, Apr. 24 to June 8, computed on basis of discharge measurements made on Apr. 30, May 1, June 5, 8, and the gage heights.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Stauffer Creek near Nounan, Idaho

Location.- Water-stage recorder, lat. 42°28', long. 111°25', in N½ sec. 15, T. 11 S., R. 43 E., 0.5 mile downstream from check dam, 0.6 mile upstream from mouth, 2 miles east of Nounan post office, and 2½ miles west of Georgetown.

Records available.- November 1939 to September 1942.

Extremes.- Maximum discharge during year, 144 second-feet Apr. 6, from rating curve extended above 50 second-feet; maximum gage height, 3.57 feet Apr. 6, ice jam; minimum discharge, 0.2 second-foot June 20, 21, July 13-17; minimum gage height, 0.57 foot June 20.

1939-42: Maximum discharge (revised), 186 second-feet May 28, 1941 (gage height, 3.85 feet), from rating curve extended above 50 second-feet; practically no flow at times July 12-14, 1941.

Revisions: The maximum discharge for the water year 1941, given above, supersedes figure published in Water-Supply Paper 930. The maximum discharge for the water year 1940 has been revised to 150 second-feet, superseding figure published in Water-Supply Paper 900.

Remarks.- Records good except those below 2 second-feet, which are fair, and those for periods of ice effect and no gage-height record, which are poor. Many irrigation diversions from stream and tributaries above station; none below. A substantial check dam has been constructed 0.5 mile above station which is used to irrigate meadows above by flooding. During periods of operation, effects of check-dam operation are pronounced.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 3.3 | 4.2 | 4.0 | | | | 8.2 | 30 | 26.0 | 5.6 | 0.9 | 0.9 |
| 2 | 3.5 | 6.3 | 4.8 | | | | b9.5 | 30 | 23.0 | 2.8 | .8 | .9 |
| 3 | 3.5 | 9.0 | 7.6 | | | | 14 | 27 | 23.0 | .8 | .8 | .8 |
| 4 | 3.3 | 9.3 | b12 | | (*) | | a50 | 26 | 18.0 | .8 | .8 | .8 |
| 5 | 3.8 | 8.8 | b9 | | | | a60 | 31 | 20.0 | .8 | .8 | .8 |
| 6 | 4.2 | 6.8 | b7 | | | | b110 | 24 | 22.0 | .7 | .9 | .8 |
| 7 | 4.2 | 6.3 | b6 | | | | b110 | 22 | 23.0 | .5 | 1.0 | .9 |
| 8 | 3.8 | 5.3 | b5.3 | | | | 97 | 22 | 26.0 | .4 | 1.0 | .9 |
| 9 | 3.3 | 5.6 | *5.3 | | | | 75 | 23 | 27.0 | .3 | a1.0 | 1.0 |
| 10 | 3.3 | 5.0 | 5.3 | | | | 59 | 24 | 27.0 | .3 | .9 | 1.2 |
| 11 | 3.3 | 5.0 | 5.0 | | | | 50 | 25 | 24.0 | .4 | 1.2 | 1.3 |
| 12 | 3.3 | 4.8 | 5.3 | | | b6.0 | 48 | 28 | 21.0 | .4 | 1.3 | 1.8 |
| 13 | 6.8 | 4.6 | 5.0 | | | | 46 | 28 | 16.0 | .2 | 1.0 | 1.8 |
| 14 | 5.8 | 4.6 | 5.0 | | | | 43 | 27 | 13.0 | .2 | 1.0 | 2.2 |
| 15 | 3.3 | 4.4 | 5.0 | | | | 46 | 27 | 7.4 | .2 | 1.0 | 1.8 |
| 16 | 3.5 | 4.6 | 5.6 | | b5.5 | | 40 | 52 | 1.8 | .2 | .8 | 1.7 |
| 17 | 3.5 | *5.0 | 6.0 | | | | 36 | 49 | .9 | .2 | 1.0 | 1.5 |
| 18 | 3.8 | 5.0 | 6.0 | | | | 42 | 34 | .6 | 9.1 | 1.0 | 1.5 |
| 19 | 3.8 | 4.8 | 5.6 | | | | 35 | 29 | .3 | 3.5 | 1.0 | 1.7 |
| 20 | 4.0 | b3.8 | b6.0 | | | | 31 | 29 | .2 | 2.2 | 1.0 | 1.8 |
| 21 | 4.6 | b3.3 | 5.0 | | | | 34 | 28 | .2 | 1.5 | .9 | 1.8 |
| 22 | 5.3 | 3.5 | b4.2 | | | | 38 | 28 | 53 | 1.3 | .8 | 1.8 |
| 23 | 5.0 | 3.8 | 4.2 | | | | 44 | 28 | 24 | 1.2 | .8 | 1.8 |
| 24 | 4.8 | 3.3 | 4.8 | | | *6.6 | 43 | 30 | 8.5 | 1.0 | .9 | 1.8 |
| 25 | 4.8 | 3.3 | b4.8 | | | b6.8 | 36 | 34 | 7.0 | .9 | .8 | 1.8 |
| 26 | 4.8 | 3.3 | b6.0 | | | b6.8 | 33 | 36 | 6.3 | .8 | .8 | 1.7 |
| 27 | 4.8 | 3.5 | b5.6 | | | b6.3 | 31 | 39 | 8.2 | .9 | .8 | 1.7 |
| 28 | 7.9 | 3.8 | 6.0 | | | b7.0 | 35 | 40 | 9.0 | .9 | .8 | 1.7 |
| 29 | 5.3 | 3.8 | b6.0 | | - | b7.0 | 38 | 36 | 8.8 | .9 | .8 | 1.7 |
| 30 | 4.8 | 3.8 | b6.0 | | - | b7.6 | 34 | 34 | 7.0 | 1.0 | .8 | 1.7 |
| 31 | 4.2 | - | b6.0 | | - | b8.2 | - | 30 | - | 1.0 | .9 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 133.6 | 7.9 | 3.3 | 4.31 | 286 |
| November..... | 148.4 | 9.3 | 3.3 | 4.95 | 294 |
| December..... | 179.4 | 12 | 4.0 | 6.79 | 366 |
| Calendar year 1941..... | 3,949.3 | 78 | 0 | 10.8 | 7,830 |
| January..... | 170.5 | - | - | 5.60 | 338 |
| February..... | 164.0 | - | - | 5.50 | 305 |
| March..... | 194.3 | 8.2 | - | 6.27 | 385 |
| April..... | 1,355.7 | 110 | 8.2 | 45.2 | 2,690 |
| May..... | 952 | 52 | 22 | 30.7 | 1,890 |
| June..... | 452.1 | 83 | .2 | 15.1 | 897 |
| July..... | 41.0 | 9.1 | .2 | 1.32 | 81 |
| August..... | 28.3 | 1.3 | .8 | .91 | 56 |
| September..... | 43.6 | 2.2 | .8 | 1.45 | 86 |
| Water year 1941-42..... | 3,858.9 | 110 | .2 | 10.6 | 7,640 |

* Winter discharge measurement made on this day.
 a No gage-height record; discharge based on weather records or interpolated.
 b Stage-discharge relation affected by ice.
 Time Basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.
 To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Skinner Creek at Nounan, Idaho

Location.- Staff gage, lat. 42°29', long. 111°23', in SW $\frac{1}{4}$ sec. 8, T. 11 S., R. 43 E., 330 feet downstream from point where flow through Minnig mill is returned to creek and three-quarters of a mile west of Nounan post office.

Drainage area.- 5.1 square miles.

Records available.- October 1939 to September 1942.

Extremes.- Maximum discharge observed during year, 20 second-feet Apr. 21 (gage height, 1.44 feet); no flow July 19, 20.
1939-42: Maximum discharge observed, 32 second-feet May 12, 13, 1941 (gage height, 1.60 feet); no flow July 19, 20, 1942.

Remarks.- Records fair. Staff gage read twice daily. One small irrigation diversion half a mile above station; many below. Water which operates Minnig mill is diverted a third of a mile above station and returned to creek above. Possibly some regulation at low stages but observations are made when none is effective. There are facilities to permit a small diversion from Coop Creek to Skinner Creek about 2 $\frac{1}{2}$ miles above the station to augment low-water supply for Minnig mill. None was so diverted during water year 1942.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|-------|------|------|------|------|-----|------|------|------|-------|
| 1 | 2.0 | 1.7 | 1.6 | bl.4 | 1.6 | 1.5 | 2.3 | 7.6 | 6.6 | 3.5 | 1.9 | ao.8 |
| 2 | 1.6 | 1.9 | 1.5 | bl.4 | bl.5 | 1.7 | 2.5 | 6.3 | 6.0 | 4.8 | .2 | 1.4 |
| 3 | 1.6 | 1.8 | 1.8 | bl.4 | 1.5 | 1.7 | 2.5 | 7.1 | 5.4 | 4.7 | 1.0 | 1.4 |
| 4 | 1.5 | 2.9 | 1.8 | bl.4 | *1.5 | 1.6 | 3.6 | 7.6 | 6.8 | 4.1 | 1.9 | 1.4 |
| 5 | 1.6 | 2.0 | bl.7 | bl.5 | 1.5 | 1.7 | 3.9 | 8.1 | 7.6 | 4.1 | 1.8 | 1.4 |
| 6 | 1.6 | 2.0 | bl.7 | bl.5 | 1.7 | 1.7 | 3.6 | 7.6 | 9.5 | 3.9 | 1.8 | 1.4 |
| 7 | 1.6 | 1.7 | bl.7 | 1.5 | 1.5 | bl.7 | 4.3 | 8.1 | 14 | 4.1 | 1.8 | 1.4 |
| 8 | 1.7 | 1.7 | bl.7 | 1.5 | 1.5 | bl.7 | 4.5 | 11 | 14 | 3.5 | 1.7 | 1.3 |
| 9 | 1.6 | 1.6 | *bl.7 | 1.5 | 1.5 | 1.9 | 4.3 | 11 | 14 | 3.2 | .6 | 1.3 |
| 10 | 1.6 | 1.6 | 1.6 | 1.5 | | 1.0 | 5.0 | 11 | 14 | 3.2 | 1.0 | 1.2 |
| 11 | 1.6 | 1.6 | 1.6 | 1.5 | | 2.0 | 8.1 | 10 | 13 | 2.5 | 1.7 | 1.0 |
| 12 | 1.6 | 1.6 | 1.5 | 1.5 | | 1.8 | 8.8 | 9.5 | 12 | 3.2 | 2.0 | 1.5 |
| 13 | 2.0 | 1.6 | 1.4 | 1.5 | | 1.8 | 10 | 9.5 | 11 | 3.1 | 1.8 | .8 |
| 14 | 1.8 | 1.6 | 1.4 | 1.5 | | 1.8 | 11 | 9.5 | 11 | 3.1 | 1.4 | .9 |
| 15 | 1.8 | 1.6 | 1.5 | bl.5 | | | 9.8 | 10 | 11 | 3.1 | 1.6 | 1.5 |
| 16 | 1.6 | 1.6 | 1.5 | bl.5 | bl.5 | bl.9 | 7.4 | 11 | 9.1 | 2.5 | 1.8 | 1.6 |
| 17 | 1.6 | *1.8 | 1.5 | 1.5 | | | 7.9 | 10 | 9.5 | 2.9 | 1.4 | 1.6 |
| 18 | 1.6 | 1.6 | 1.5 | 1.5 | | 1.9 | 7.9 | 9.8 | 9.1 | 1.6 | 1.5 | 1.6 |
| 19 | 1.6 | 1.6 | 1.5 | 1.5 | | | 7.9 | 11 | 8.4 | 0 | 1.4 | 1.6 |
| 20 | 1.7 | bl.6 | 1.4 | bl.5 | | bl.9 | 12 | 14 | 8.1 | 0 | 1.4 | 1.6 |
| 21 | 1.8 | bl.6 | 1.4 | bl.5 | | | 18 | 13 | 7.9 | 1.3 | 1.3 | 1.6 |
| 22 | 1.6 | bl.6 | 1.4 | bl.5 | | | 16 | 14 | 7.4 | 2.2 | 1.6 | 1.5 |
| 23 | 1.6 | bl.6 | bl.4 | bl.5 | | *1.9 | 14 | 16 | 7.4 | 2.4 | 1.4 | 1.5 |
| 24 | 1.7 | 1.6 | 1.5 | 1.5 | 1.6 | bl.9 | 11 | 16 | 6.8 | 1.9 | 1.4 | 1.5 |
| 25 | 1.7 | 1.6 | 1.4 | 1.5 | 1.6 | 2.0 | 11 | 16 | 6.6 | 2.1 | 1.4 | 1.6 |
| 26 | 1.7 | 1.4 | bl.4 | 1.5 | 1.6 | 2.0 | 9.5 | 18 | 7.6 | 2.0 | 1.6 | 1.4 |
| 27 | 1.7 | 1.4 | bl.4 | 1.5 | 1.5 | | 9.5 | 17 | 6.6 | 2.0 | 1.1 | 1.5 |
| 28 | 1.8 | 1.4 | bl.4 | 1.7 | 1.4 | bl.9 | 8.8 | 16 | 6.1 | 1.8 | 1.5 | 1.4 |
| 29 | 1.7 | 1.4 | 1.4 | 1.7 | - | | 8.1 | 16 | 5.4 | 1.7 | .7 | 1.4 |
| 30 | 1.7 | 1.4 | 1.4 | bl.7 | - | 1.9 | 7.6 | 12 | 5.4 | 2.0 | .3 | 1.4 |
| 31 | 1.5 | - | 1.4 | bl.7 | - | 2.1 | - | 9.1 | - | 2.0 | .2 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 51.8 | 2.0 | 1.5 | 1.67 | 103 |
| November..... | 50.1 | 2.9 | 1.4 | 1.67 | 99 |
| December..... | 47.1 | 1.8 | 1.4 | 1.52 | 93 |
| Calendar year 1941..... | 1,256.1 | 28 | .6 | 3.44 | 2,490 |
| January..... | 46.9 | 1.7 | 1.4 | 1.61 | 93 |
| February..... | 42.5 | 1.7 | - | 1.52 | 84 |
| March..... | 57.1 | - | 1.5 | 1.84 | 113 |
| April..... | 240.8 | 18 | 2.3 | 8.05 | 478 |
| May..... | 353.1 | 18 | 6.3 | 11.4 | 700 |
| June..... | 266.1 | 14 | 5.4 | 8.94 | 532 |
| July..... | 82.5 | 4.8 | 0 | 2.66 | 164 |
| August..... | 45.0 | 2.0 | .2 | 1.39 | 85 |
| September..... | 41.5 | 1.6 | .8 | 1.38 | 82 |
| Water year 1941-42..... | 1,324.5 | 18 | 0 | 3.63 | 2,650 |

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Cottonwood Creek near Cleveland, Idaho

Location.- Staff gage, lat. 42°20', long. 111°46', in sec. 34, T. 12 S., R. 40 E., 500 feet upstream from Cleveland irrigation canal, 2 1/2 miles west of Cleveland, and 4 miles downstream from proposed Cottonwood Dam.

Records available.- November 1938 to September 1942.

Extremes.- Maximum discharge observed during year, 250 second-feet Apr. 14, from rating curve extended above 160 second-feet; maximum gage-height observed, 270 feet Jan. 21, 1939; minimum discharge observed, 2.8 second-feet Aug. 24, 31 (gage height, 0.67 foot).

1938-42: Maximum discharge observed, 330 second-feet Apr. 1, 1939 (gage height, 3.00 feet), from rating curve extended above 130 second-feet; minimum observed, 0.5 second-foot Aug. 17, 1940 (gage height, 0.46 foot).

Remarks.- Records fair except those for periods of ice effect and doubtful gage-height record, which are poor. Several irrigation diversions in upper valley above proposed Cottonwood Dam. Gage read once daily.

Cooperation.- Results of six discharge measurements furnished by U.S. Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 7.9 | | 9.7 | | 12 | | 116 | 77 | 30 | 6.2 | 4.2 | 3.0 |
| 2 | 10 | | 11 | | 12 | | 145 | 67 | 26 | 5.6 | 4.2 | 3.0 |
| 3 | 7.9 | | 11 | | 12 | | 80 | 72 | 23 | 6.2 | 4.2 | 3.1 |
| 4 | 8.6 | | 12 | | *12 | | 102 | 77 | 23 | 5.6 | 3.8 | 3.1 |
| 5 | 9.3 | d6 | b11 | | 12 | | 135 | 72 | 88 | 5.1 | 4.2 | 3.1 |
| 6 | 10 | | b10 | | d12 | b9 | 155 | 65 | 18 | 8.2 | 4.2 | |
| 7 | 10 | 7.9 | b10 | | 12 | | 165 | 65 | 17 | 10.3 | 4.2 | |
| 8 | 9.7 | 7.9 | 10 | | 12 | | 175 | 67 | 14 | 10.8 | 4.2 | |
| 9 | 9.7 | a8 | 10 | | 12 | | 200 | 75 | 14 | 8.8 | 4.2 | |
| 10 | 9.3 | a8.5 | 10 | | | | 155 | 77 | 13 | 9.6 | 4.0 | d4 |
| 11 | 9.3 | a9 | 12 | | | 12 | 163 | 77 | 11 | 8.2 | 3.8 | |
| 12 | 9.7 | a9.5 | 12 | | | 13 | 190 | 80 | 11 | 8.8 | 3.8 | |
| 13 | 10 | *9.7 | 13 | b8 | | 15 | 225 | 82 | 10 | 8.2 | 3.8 | |
| 14 | 10 | 10 | 10 | | | 10 | 250 | 77 | 10 | 9.6 | 4.2 | 5.5 |
| 15 | 10 | 10 | 13 | | | 12 | 215 | 72 | 10 | 8.8 | 3.8 | d3.6 |
| 16 | 9.7 | 10 | 13 | | | | 225 | 91 | 12 | 10 | 3.5 | d5.7 |
| 17 | 9.3 | 11 | 13 | | | | 200 | 72 | 9.6 | 10 | 3.3 | 3.8 |
| 18 | 9.3 | | 13 | | | b9 | 175 | 77 | 8.8 | 10 | 3.3 | |
| 19 | 9.3 | (*) | *13 | | | | 163 | 72 | 12 | 6.2 | 3.5 | |
| 20 | 9.3 | | 13 | | | | 147 | 70 | 13 | 5.6 | 3.3 | d4.5 |
| 21 | 9.7 | b9 | 13 | | | b8 | 135 | 70 | 12 | 5.6 | 3.0 | |
| 22 | 9.3 | | 14 | | | *b8 | 143 | d77 | 11 | 5.1 | 3.0 | |
| 23 | 9.3 | | 12 | | | b10 | 155 | 77 | 10 | 5.1 | 3.0 | |
| 24 | 10 | | 14 | | | b11 | 120 | 75 | 10 | 4.4 | 2.8 | 5.4 |
| 25 | 10 | 6.2 | 10 | 12 | | b12 | 116 | 77 | 9.6 | 4.4 | 3.9 | 5.1 |
| 26 | 10 | 6.2 | | 12 | | b13 | 135 | 75 | 11 | 4.2 | 3.0 | 5.1 |
| 27 | | 6.4 | | 11 | | b14 | 62 | 72 | 10 | 3.8 | 3.1 | 5.1 |
| 28 | | 7.0 | | 12 | | 16 | 82 | 70 | 9.6 | 4.2 | 3.0 | 4.9 |
| 29 | d6 | 6.7 | b9 | 12 | - | 30 | 77 | 41 | 8.8 | 4.2 | 3.0 | 5.1 |
| 30 | | 7.9 | | 11 | - | 163 | 80 | 58 | 8.2 | 4.2 | 3.0 | 5.1 |
| 31 | | - | | 12 | - | 60 | - | 41 | - | 4.7 | 2.8 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 276.6 | 10 | - | 8.92 | 549 |
| November..... | 240.9 | - | - | 8.03 | 478 |
| December..... | 349.7 | 13 | - | 11.3 | 694 |
| Calendar year 1941..... | 9,392.9 | 197 | 2.3 | 25.7 | 18,620 |
| January..... | 274 | 12 | - | 8.8 | 543 |
| February..... | 279 | 12 | - | 10.0 | 553 |
| March..... | 542 | 163 | - | 17.5 | 1,080 |
| April..... | 4,506 | 250 | 77 | 150 | 8,940 |
| May..... | 2,217 | 91 | 41 | 71.5 | 4,400 |
| June..... | 411.6 | 30 | 8.2 | 13.7 | 816 |
| July..... | 210.6 | 10 | 3.8 | 6.79 | 418 |
| August..... | 110.4 | 4.2 | 2.8 | 3.56 | 219 |
| September..... | 124.7 | 5.4 | 3.0 | 4.16 | 247 |
| Water year 1941-42..... | 9,542.5 | 250 | 2.8 | 26.1 | 18,940 |

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
c Doubtful gage-height record; discharge computed on basis of unpublished record for Cottonwood Valley station furnished by U.S. Bureau of Reclamation.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Little Bear River near Paradise, Utah

Location.- Water-stage recorder, lat. 41°35'25", long. 111°51'10", in SE $\frac{1}{4}$ sec. 20, T. 10 N., R. 1 E., 1 mile upstream from backwater of Hyrum Reservoir, 2 miles northwest of Paradise, and 5 miles downstream from East Fork.

Drainage area.- 203 square miles.

Records available.- October 1938 to September 1942 in reports of Geological Survey. January 1936 to October 1939 (fragmentary) in reports of Little Bear River water commissioner.

Extremes.- Maximum discharge during year, 720 second-feet Apr. 5 (gage height, 3.88 feet); minimum, 7 second-feet Aug. 6. 1938-42: Maximum discharge, that of Apr. 5, 1942; minimum, 4 second-feet Aug. 14, 1940.

Remarks.- Records good except those for periods of ice effect, which are fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 14 | 35 | 37 | 34 | 45 | 39 | 156 | 212 | 146 | 24 | 11 | 10 |
| 2 | 14 | 40 | 39 | 38 | *44 | 40 | 180 | 210 | 142 | 24 | 12 | 11 |
| 3 | 16 | 40 | 49 | 31 | 45 | 41 | 230 | 195 | 134 | 21 | 12 | 12 |
| 4 | 20 | 39 | 75 | 30 | 44 | 41 | 335 | 184 | 124 | 20 | 12 | 10 |
| 5 | 26 | 39 | 54 | 28 | 45 | 41 | 496 | 180 | 111 | 19 | 12 | 10 |
| 6 | 27 | 38 | 47 | 30 | 45 | 41 | 370 | 176 | 105 | 18 | 13 | 11 |
| 7 | 26 | 37 | 47 | 32 | 45 | *41 | 344 | 165 | 90 | 17 | 12 | 10 |
| 8 | 29 | 36 | 43 | 34 | 44 | 43 | 338 | 165 | 79 | 17 | 10 | 10 |
| 9 | 29 | 35 | 39 | 35 | 41 | 36 | 338 | 176 | 68 | 17 | 10 | 10 |
| 10 | 29 | 35 | 39 | 35 | 37 | 49 | 368 | 197 | 58 | 17 | 10 | 10 |
| 11 | 29 | 38 | 41 | 35 | 39 | 52 | 384 | 208 | 46 | 15 | 11 | 10 |
| 12 | 30 | 37 | 40 | 35 | 40 | 57 | 455 | 214 | 43 | 14 | 10 | 12 |
| 13 | 37 | 34 | 39 | 35 | 39 | 59 | 421 | 212 | 41 | 14 | 9 | 12 |
| 14 | 33 | 33 | 39 | 35 | *38 | 58 | 455 | 203 | 38 | 18 | 10 | 12 |
| 15 | 32 | 33 | 39 | *35 | 38 | 55 | 414 | 188 | 38 | 16 | 9 | 11 |
| 16 | 31 | 33 | *41 | 35 | 38 | 55 | 328 | 241 | 31 | 15 | 8 | 11 |
| 17 | 31 | 36 | 45 | 35 | 46 | 55 | 308 | 256 | 29 | 15 | 9 | 11 |
| 18 | 31 | 38 | 43 | 35 | 34 | 55 | 326 | 221 | 26 | 15 | 9 | 11 |
| 19 | 30 | 47 | 41 | *35 | 34 | 54 | 276 | 212 | 26 | 15 | 9 | 12 |
| 20 | 30 | 32 | 40 | 35 | 34 | 50 | 267 | 212 | 25 | 16 | 9 | 12 |
| 21 | 35 | 32 | 41 | 35 | 36 | 51 | 276 | 230 | 25 | 16 | 9 | 12 |
| 22 | 35 | 35 | 39 | 35 | 38 | 54 | 305 | 267 | 25 | 15 | 9 | 12 |
| 23 | 33 | 33 | 37 | 35 | 38 | 59 | 344 | 312 | 25 | 14 | 8 | 12 |
| 24 | 34 | 34 | 39 | 35 | 38 | 64 | 303 | 335 | 25 | 13 | 8 | 12 |
| 25 | 33 | 34 | 38 | 35 | 38 | 59 | 265 | 324 | 24 | 13 | 9 | 12 |
| 26 | 35 | 36 | 32 | 36 | 36 | 58 | 234 | 317 | 26 | 13 | 10 | 12 |
| 27 | 33 | 36 | 30 | 38 | 38 | 57 | 208 | 294 | 26 | 13 | 10 | 12 |
| 28 | 36 | 37 | 32 | 42 | 38 | 58 | 217 | 266 | 26 | 12 | 10 | 12 |
| 29 | 37 | 36 | 36 | 45 | - | 64 | 236 | 221 | 26 | 10 | 10 | 12 |
| 30 | 36 | 36 | 37 | 43 | - | 75 | 230 | 178 | 24 | 10 | 10 | 12 |
| 31 | 36 | - | 37 | 43 | - | 93 | - | 161 | - | 10 | 10 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 926 | 37 | 14 | 29.9 | 1,840 |
| November | 1,074 | 40 | 32 | 35.8 | 2,130 |
| December | 1,275 | 75 | 30 | 41.1 | 2,630 |
| Calendar year 1941 | 18,118 | 265 | 7 | 49.6 | 35,950 |
| January | 1,094 | 45 | 28 | 35.3 | 2,170 |
| February | 1,105 | 45 | 34 | 39.5 | 2,190 |
| March | 1,663 | 93 | 39 | 53.6 | 3,300 |
| April | 9,365 | 496 | 156 | 512 | 18,580 |
| May | 6,922 | 335 | 161 | 223 | 13,730 |
| June | 1,652 | 146 | 24 | 55.0 | 3,260 |
| July | 436 | 24 | 10 | 15.7 | 964 |
| August | 310 | 13 | 8 | 10.0 | 615 |
| September | 338 | 12 | 10 | 11.3 | 670 |
| Water year 1941-42 | 26,210 | 496 | 8 | 71.8 | 52,000 |

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 27, Jan. 1 to Feb. 1, Feb. 14 to Mar. 6.

Time basis:- Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Hyrum Reservoir near Hyrum, Utah

Location.- Mercury indicating gage, lat. 41°37'30", long. 111°52'30", in SE 1/4 sec. 7, T. 10 N., R. 1 E., at Hyrum Dam on Little Bear River 1 mile southwest of Hyrum. Datum of gage is mean sea level.

Drainage area.- 220 square miles.

Records available.- October 1938 to September 1942.

Extremes.- Maximum contents during year, 18,680 acre-feet Apr. 30, May 1, May 4 to June 8 (elevation, 4,672.0 feet); minimum, 5,320 acre-feet Oct. 4, 5 (elevation, 4,637.8 feet).

1938-42: Maximum contents, 18,680 acre-feet for periods in each year (elevation, 4,672.0 feet); minimum, 4,250 acre-feet Oct. 5 (elevation, 4,634.7 feet).

Remarks.- Reservoir is formed by earth-fill dam; storage began in 1935. Capacity, 18,680 acre-feet between elevations 4,590 feet (bottom of reservoir) and 4,672 feet (top of spillway gates) above mean sea level. Dead storage, 3,370 acre-feet (below elevation 4,629.6 feet, sill of outlet canal). Figures given herein represent total contents. Elevation of spillway crest is 4,660 feet. Water is used for irrigation on the Hyrum project.

Contents, in acre-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 1 | 5,460 | 6,140 | 7,430 | 10,060 | 12,360 | 13,550 | 13,640 | 18,680 | 18,680 | 16,870 | 12,700 | 8,660 |
| 2 | 5,400 | 6,230 | 7,560 | 10,130 | 12,450 | 13,640 | 13,720 | 18,490 | 18,680 | 16,870 | 12,570 | 8,590 |
| 3 | 5,350 | - | 7,690 | 10,250 | 12,530 | 13,640 | 13,900 | 18,640 | 18,680 | 16,820 | - | 8,450 |
| 4 | 5,320 | - | 7,830 | 10,330 | 12,660 | 13,640 | 14,070 | 18,680 | 18,680 | 16,730 | - | 8,310 |
| 5 | 5,320 | - | 8,000 | - | 12,780 | 13,640 | - | 18,680 | 18,680 | 16,640 | - | 8,200 |
| 6 | - | - | 8,070 | - | 12,910 | 13,640 | - | 18,680 | 18,680 | - | - | 8,070 |
| 7 | - | - | 8,130 | - | 12,990 | 13,640 | - | 18,680 | 18,680 | - | - | - |
| 8 | - | 6,470 | - | - | 13,080 | 13,640 | - | 18,680 | 18,680 | - | 11,710 | - |
| 9 | - | 6,500 | - | - | - | - | - | 18,680 | 18,640 | - | 11,550 | - |
| 10 | - | - | - | 10,750 | - | - | - | 18,680 | 18,540 | 16,080 | 11,590 | 7,520 |
| 11 | 5,400 | - | - | 10,830 | - | - | 14,240 | 18,680 | 18,440 | 15,900 | - | - |
| 12 | 5,430 | - | - | - | - | - | - | 18,680 | 18,300 | 15,760 | - | 7,260 |
| 13 | - | - | 8,620 | - | - | - | - | 18,680 | 18,250 | - | - | 7,130 |
| 14 | - | - | 8,700 | - | 13,510 | 13,640 | - | 18,680 | 18,150 | - | - | - |
| 15 | - | 6,750 | - | - | 13,550 | 13,640 | - | 18,680 | - | - | 10,670 | - |
| 16 | - | 6,780 | - | - | - | - | - | 18,680 | - | - | 10,910 | - |
| 17 | - | - | - | 11,270 | - | - | - | 18,680 | - | - | - | - |
| 18 | 5,620 | - | - | 11,310 | - | - | 14,950 | 18,680 | - | 14,860 | - | - |
| 19 | 5,650 | - | - | - | - | - | 14,730 | 18,680 | - | 14,730 | - | 6,530 |
| 20 | - | - | 9,240 | - | - | - | - | 18,680 | 17,290 | 14,550 | 9,940 | 6,470 |
| 21 | - | - | 9,310 | - | 13,550 | 13,640 | - | 18,680 | 17,200 | - | - | - |
| 22 | - | 7,000 | - | - | 13,550 | 13,640 | - | 18,680 | - | - | 9,640 | - |
| 23 | - | 7,040 | - | - | - | - | - | 18,680 | - | - | 9,500 | - |
| 24 | - | - | - | 11,710 | - | - | - | 18,680 | - | - | - | - |
| 25 | 5,880 | - | - | 11,790 | - | - | 17,110 | 18,680 | - | 13,720 | - | - |
| 26 | 5,940 | - | - | - | - | - | 17,530 | 18,680 | - | 13,550 | - | 6,110 |
| 27 | 5,970 | - | 9,760 | - | - | - | 17,910 | 18,680 | 16,870 | 13,380 | - | 6,050 |
| 28 | 6,000 | - | 9,830 | - | 13,550 | 13,770 | 18,440 | 18,680 | 16,870 | 13,210 | - | 6,000 |
| 29 | 6,050 | 7,360 | 9,910 | - | - | 13,720 | 18,590 | 18,680 | 16,870 | 13,120 | 8,770 | 5,910 |
| 30 | 6,080 | 7,430 | 9,990 | - | - | 13,720 | 18,680 | 18,680 | 16,870 | 12,990 | 8,730 | 5,820 |
| 31 | 6,140 | - | 10,060 | 12,360 | - | 13,640 | - | 18,680 | - | 12,820 | 8,700 | - |

Monthly elevation and contents, water year October 1941 to September 1942

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents during month (acre-feet) |
|-------------------------|------------------|----------------------|---|
| Sept. 30..... | 4,638.3 | 5,460 | - |
| Oct. 31..... | 4,640.7 | 6,140 | +680 |
| Nov. 30..... | 4,644.8 | 7,430 | +1,290 |
| Dec. 31..... | 4,652.2 | 10,060 | +2,630 |
| Calendar year 1941..... | - | - | +2,100 |
| Jan. 31..... | 4,658.0 | 12,360 | +2,300 |
| Feb. 28..... | 4,660.8 | 13,550 | +1,190 |
| Mar. 31..... | 4,661.0 | 13,640 | +90 |
| Apr. 30..... | 4,672.0 | 18,680 | +5,040 |
| May 31..... | 4,672.0 | 18,680 | 0 |
| June 30..... | 4,668.2 | 16,870 | -1,810 |
| July 31..... | 4,659.1 | 12,820 | -4,050 |
| Aug. 31..... | 4,648.5 | 8,700 | -4,120 |
| Sept. 30..... | 4,639.6 | 5,820 | -2,880 |
| Water year 1941-42..... | - | - | +360 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Little Bear River near Hyrum, Utah

Location.- Water-stage recorder, lat. $41^{\circ}38'00''$, long. $111^{\circ}53'15''$, in N $\frac{1}{2}$ S $\frac{1}{2}$ sec. 6, T. 10 N., R. 1 E., 800 feet upstream from bridge, $\frac{1}{2}$ miles downstream from Hyrum Dam, and 2 miles west of Hyrum.

Drainage area.- 222 square miles.

Records available.- October 1938 to September 1942.

Extremes (regulated).- Maximum discharge during year, 464 second-foot Apr. 6 (gage height, 3.85 feet); minimum daily, 2 second-foot for several days during the year.
1938-42: Maximum discharge, that for Apr. 6, 1942; minimum, 1 second-foot or less for periods in most years.

Remarks.- Records good, except those for period of no gage-height record, which are fair. Flow affected by many irrigation diversions above station and regulated by Hyrum Reservoir. (See preceding page.)

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 5 | 11 | 2 | e2 | 5 | a41 | 103 | 290 | 122 | 2 | 4 | 4 |
| 2 | 5 | 22 | e2 | e2 | 5 | a42 | 156 | 240 | 80 | 2 | 4 | 5 |
| 3 | 2 | 22 | e2 | e2 | 5 | 43 | 205 | 109 | 86 | 2 | 4 | 7 |
| 4 | 2 | 23 | e2 | e3 | 5 | 42 | 273 | 141 | 131 | 3 | 4 | 5 |
| 5 | 5 | 17 | e2 | e3 | 5 | 39 | 357 | 177 | 88 | 3 | 4 | 4 |
| 6 | 10 | 12 | e2 | e3 | 5 | 39 | 422 | 177 | 11 | 3 | 4 | 5 |
| 7 | 10 | e12 | e2 | e3 | 6 | 39 | 417 | 184 | 10 | 2 | 4 | 5 |
| 8 | 10 | e12 | e2 | e3 | 5 | 38 | 393 | 184 | 9 | 2 | 4 | 5 |
| 9 | 15 | e12 | e2 | e3 | 5 | 38 | 374 | 186 | 10 | 2 | 4 | 4 |
| 10 | 14 | e12 | e2 | e4 | 5 | 39 | 374 | 188 | 11 | 2 | 4 | 3 |
| 11 | 14 | e11 | e2 | e4 | 5 | 43 | 384 | 190 | 10 | 2 | 4 | 4 |
| 12 | 14 | e11 | e2 | e4 | 20 | 47 | 413 | 209 | 9 | 2 | 4 | 6 |
| 13 | 15 | e11 | e2 | e4 | 29 | 54 | 362 | 256 | 9 | 2 | 4 | 7 |
| 14 | 14 | e11 | e2 | e4 | 33 | 60 | 341 | 254 | 6 | 3 | 4 | 7 |
| 15 | 14 | e11 | e2 | e5 | 37 | 60 | 362 | 252 | 5 | 3 | 4 | 7 |
| 16 | 11 | e11 | e2 | 5 | 41 | 58 | 362 | 230 | 5 | 2 | 3 | 7 |
| 17 | 8 | e11 | e2 | 5 | 41 | 58 | 348 | 196 | 5 | 2 | 3 | 6 |
| 18 | 8 | 9 | e2 | 4 | a37 | 56 | 337 | 198 | 5 | 3 | 4 | 6 |
| 19 | 8 | 9 | e2 | 4 | a37 | 56 | 299 | 196 | 5 | 2 | 4 | 6 |
| 20 | 8 | 9 | e2 | 4 | a37 | 54 | 230 | 196 | 4 | 2 | 4 | 5 |
| 21 | 8 | 8 | e2 | 4 | a39 | 52 | 170 | 263 | 4 | 3 | 3 | 4 |
| 22 | 8 | 8 | e2 | 4 | a40 | 52 | 163 | 261 | 3 | 3 | 3 | 5 |
| 23 | 8 | 8 | e2 | 4 | a40 | 54 | 119 | 264 | 3 | 4 | 4 | 5 |
| 24 | 8 | 7 | e2 | 4 | a40 | 33 | 8 | 299 | 3 | 4 | 3 | 6 |
| 25 | 8 | 4 | e2 | 4 | a40 | 5 | 7 | 332 | 3 | 4 | 4 | 6 |
| 26 | 8 | 2 | e2 | 4 | a40 | 72 | 7 | 328 | 3 | 5 | 3 | 4 |
| 27 | 8 | 2 | e2 | 4 | a40 | 139 | 6 | 325 | 3 | 4 | 3 | 3 |
| 28 | 8 | 2 | e2 | 4 | a40 | 98 | 17 | 278 | 4 | 4 | 4 | 4 |
| 29 | 8 | 2 | e2 | 4 | - | 80 | 144 | 181 | 3 | 5 | 3 | 3 |
| 30 | 8 | 2 | e2 | 4 | - | 76 | 211 | 139 | 2 | 4 | 4 | 3 |
| 31 | 8 | - | e2 | 4 | - | 82 | - | 117 | - | 4 | 4 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 278 | 15 | 2 | 9.0 | 551 |
| November | 304 | 23 | 2 | 10.1 | 603 |
| December | 62 | 2 | 2 | 2.0 | 123 |
| Calendar year 1941 | 7,828 | 256 | 1 | 21.4 | 15,530 |
| January | 115 | 5 | 2 | 3.7 | 228 |
| February | 687 | 41 | 5 | 24.5 | 1,360 |
| March | 1,639 | 159 | 5 | 54.5 | 3,350 |
| April | 7,364 | 422 | 6 | 245 | 14,610 |
| May | 6,840 | 332 | 109 | 221 | 13,570 |
| June | 632 | 131 | 2 | 21.1 | 1,250 |
| July | 90 | 5 | 2 | 2.9 | 179 |
| August | 118 | 5 | 3 | 3.8 | 234 |
| September | 151 | 7 | 3 | 5.0 | 300 |
| Water year 1941-42 | 18,330 | 422 | 2 | 50.2 | 36,360 |

a No gage-height record; discharge based on records for Hyrum Reservoir and station near Paradise.
b Backwater from beaver dams; discharge computed on basis of gage-heights, gate changes at dam, intervening non-affected periods, and measurements.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Logan River above State Dam, near Logan, Utah

Location.- Water-stage recorder and concrete control, lat. 41°44'40", long. 111°47'00", in NE 1/4 sec. 36, T. 12 N., R. 1 E., at Logan plant of Utah Power & Light Co. 125 feet upstream from tailrace, half a mile upstream from State Dam, and 2 1/2 miles east of Logan.

Drainage area.- 218 square miles.

Records available.- May 1913 to September 1942. June 1896 to December 1912, at site a quarter of a mile downstream; flow at present site, plus that of tailrace equivalent to flow at former site.

Average discharge.- 29 years (1913-42), 110 second-feet.

Extremes.- Maximum discharge during year, 481 second-feet May 28 (gage height, 2.73 feet); minimum daily, 9 second-feet Nov. 1, 1913-42: Maximum discharge, 2,000 second-feet Mar. 21, 1918 (gage height, 5.6 feet, datum then in use), from rating curve extended above 1,000 second-feet; minimum daily, 6 second-feet Nov. 7, 1940.

Remarks.- Records good except those for periods when daily gage readings were used and times when gage readings were not representative of average for day, which are fair. Water diverted from river and springs above station for power, irrigation, and municipal supply. Flow regulated by power plants above station.

Cooperation.- Water-stage recorder graph and five discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1 | h11 | h9 | 11 | 12 | 11 | 12 | 15 | 117 | e128 | 36 | 17 | 14 |
| 2 | h11 | h10 | 11 | 12 | 11 | 12 | 16 | 29 | h199 | 39 | 17 | 14 |
| 3 | h12 | h10 | 14 | 12 | 11 | 14 | 20 | 25 | h211 | 43 | 17 | 14 |
| 4 | h10 | h10 | 14 | 12 | 11 | 13 | 31 | 41 | h223 | 26 | 17 | 14 |
| 5 | h16 | h10 | 12 | 12 | 12 | 13 | 16 | 19 | 220 | 22 | 17 | 14 |
| 6 | h11 | h10 | 12 | 12 | 12 | 13 | 22 | 26 | 229 | 22 | 17 | 14 |
| 7 | h10 | h10 | 13 | 12 | 12 | 13 | 18 | 21 | 241 | 18 | 16 | 14 |
| 8 | h11 | h10 | 13 | 13 | 12 | 13 | 17 | 24 | 251 | 18 | 16 | 14 |
| 9 | h11 | h10 | 12 | 13 | 12 | 13 | 17 | 57 | 232 | 19 | 16 | 14 |
| 10 | h10 | h11 | 12 | 13 | 12 | 13 | 31 | 74 | 217 | 19 | 16 | 14 |
| 11 | h11 | h11 | 12 | 12 | 12 | 13 | 35 | 66 | 202 | 18 | 15 | 15 |
| 12 | h11 | h11 | 13 | 12 | 12 | 14 | 68 | 84 | 182 | 18 | 16 | 16 |
| 13 | h12 | h11 | 12 | 12 | 12 | 14 | 77 | 82 | 140 | 17 | 16 | 15 |
| 14 | h12 | h11 | 12 | 12 | 12 | 14 | 102 | 67 | 113 | 17 | 14 | 15 |
| 15 | h12 | h11 | 12 | 12 | 12 | 14 | 88 | 48 | 124 | 18 | 14 | 15 |
| 16 | h10 | h11 | 12 | 12 | 12 | 14 | 66 | 68 | 152 | 18 | 29 | 15 |
| 17 | h11 | h12 | 12 | 12 | 12 | 14 | 61 | 72 | 99 | 18 | 14 | 15 |
| 18 | h11 | h12 | 12 | 12 | 12 | 14 | 66 | 65 | 95 | 18 | 14 | 15 |
| 19 | h10 | h12 | 12 | 12 | 12 | 14 | 60 | 53 | 91 | 18 | 14 | 15 |
| 20 | h10 | h12 | 12 | 12 | 11 | 13 | e96 | 76 | 74 | 18 | 14 | 15 |
| 21 | h10 | h11 | 12 | 12 | 11 | 13 | e299 | 132 | 56 | 18 | 14 | 15 |
| 22 | h10 | h11 | 12 | 12 | 12 | 13 | e349 | 214 | 46 | 17 | 14 | 15 |
| 23 | h10 | h11 | 12 | 12 | 12 | 13 | h338 | 276 | 43 | 17 | 14 | 15 |
| 24 | h10 | h11 | 13 | 12 | 12 | 14 | h328 | 342 | 56 | 17 | 14 | 15 |
| 25 | h10 | 11 | 12 | 12 | 12 | 14 | h275 | 362 | 53 | 18 | 14 | 15 |
| 26 | h10 | 11 | 12 | 12 | 12 | 14 | h257 | 415 | 63 | 17 | 14 | 15 |
| 27 | h10 | 11 | 12 | 12 | 12 | 14 | h242 | 362 | 54 | 17 | 14 | 15 |
| 28 | h10 | 12 | 12 | 13 | 12 | 14 | h229 | 298 | 40 | 17 | 14 | 15 |
| 29 | h10 | 12 | 13 | 13 | - | 14 | h236 | h265 | 35 | 17 | 14 | 15 |
| 30 | h10 | 11 | 12 | 12 | - | 14 | h206 | h140 | 33 | 17 | 14 | 15 |
| 31 | h10 | - | 12 | 13 | - | 14 | - | e118 | - | 17 | 14 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 333 | 16 | 10 | 10.7 | 660 |
| November..... | 326 | 12 | 9 | 10.9 | 647 |
| December..... | 379 | 14 | 11 | 12.2 | 752 |
| Calendar year 1941..... | 8,165 | 153 | 9 | 22.4 | 16,200 |
| January..... | 382 | 16 | 12 | 12.3 | 758 |
| February..... | 330 | 12 | 11 | 11.8 | 655 |
| March..... | 418 | 12 | 14 | 13.5 | 829 |
| April..... | 3,681 | 349 | 15 | 123 | 7,300 |
| May..... | 4,039 | 415 | 19 | 130 | 8,010 |
| June..... | 3,882 | 251 | 33 | 129 | 7,700 |
| July..... | 629 | 43 | 17 | 20.3 | 1,250 |
| August..... | 479 | 29 | 14 | 15.5 | 980 |
| September..... | 441 | 15 | 14 | 14.7 | 875 |
| Water year 1941-42..... | 15,319 | 415 | 9 | 42.0 | 30,390 |

* Gage readings not representative of average for day; discharge computed on basis of records for station on Weber River near Coalville.

h Discharge computed from mean of twice-daily staff-gage readings.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.

To convert war time to standard time, subtract 1 hour.

Utah Power & Light Co.'s tailrace near Logan, Utah

Location.- Water-stage recorder and wooden control, lat. 41°44'40", long. 111°47'00", in NE¼ sec. 36, T. 12 N., R. 1 E., 100 feet downstream from powerhouse of Utah Power & Light Co. and 2¼ miles east of Logan.

Records available.- May 1913 to September 1942.

Average discharge.- 29 years, 103 second-feet.

Extremes.- Maximum daily discharge during year, 196 second-feet May 23 (gage height, 2.64 feet); minimum daily, 1 second-foot Apr. 21-30.

1914-42: Maximum daily discharge, that of May 23, 1942; no flow for periods during several years.

Remarks.- Records excellent. Flow regulated by power plant above gage. Power canal diverts water from right bank of Logan River in SE¼SW¼ sec. 29, T. 12 N., R. 2 E. Water returned to river 125 feet below gaging station on Logan River above State dam.

Cooperation.- Water-stage recorder graph and five discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 83 | 77 | 68 | 58 | 64 | 60 | 78 | 105 | 191 | 186 | 121 | 96 |
| 2 | 80 | 78 | 69 | 64 | 60 | 60 | 79 | 108 | 191 | 186 | 120 | 95 |
| 3 | 81 | 80 | 72 | 51 | 62 | 57 | 84 | 190 | 191 | 185 | 121 | 91 |
| 4 | 81 | 78 | 75 | 50 | 64 | 60 | 102 | 177 | 191 | 183 | 122 | 92 |
| 5 | 79 | 79 | 72 | 51 | 64 | 60 | 153 | 170 | 191 | 183 | 121 | 92 |
| 6 | 84 | 77 | 67 | 52 | 65 | 60 | 149 | 186 | 191 | 186 | 119 | 89 |
| 7 | 85 | 77 | 68 | 59 | 65 | 60 | 155 | 180 | 191 | 186 | 117 | 89 |
| 8 | 83 | 76 | 68 | 74 | 65 | 58 | 149 | 183 | 191 | 182 | 116 | 87 |
| 9 | 80 | 75 | 65 | 71 | 65 | 60 | 157 | 188 | 191 | 183 | 113 | 87 |
| 10 | 76 | 75 | 65 | 69 | 60 | 60 | 175 | 188 | 191 | 185 | 104 | 86 |
| 11 | 75 | 78 | 65 | 66 | 59 | 64 | 178 | 188 | 191 | 182 | 110 | 83 |
| 12 | 75 | 78 | 68 | 65 | 60 | 64 | 180 | 188 | 191 | 169 | 117 | 91 |
| 13 | 81 | 79 | 70 | 61 | 60 | 69 | 182 | 188 | 191 | 170 | 116 | 92 |
| 14 | 79 | 75 | 69 | 62 | 54 | 67 | 182 | 188 | 193 | 166 | 115 | 91 |
| 15 | 79 | 74 | 71 | 61 | 54 | 67 | 182 | 190 | 194 | 166 | 113 | 86 |
| 16 | 79 | 71 | 70 | 62 | 54 | 61 | 178 | 190 | 194 | 163 | 111 | 85 |
| 17 | 79 | 71 | 66 | 65 | 54 | 61 | 177 | 190 | 193 | 162 | 107 | 85 |
| 18 | 78 | 77 | 67 | 65 | 47 | 62 | 182 | 190 | 193 | 163 | 108 | 83 |
| 19 | 79 | 74 | 67 | 64 | 44 | 64 | 182 | 190 | 183 | 160 | 108 | 80 |
| 20 | 78 | 71 | 67 | 56 | 54 | 62 | 164 | 190 | 193 | 157 | 107 | 80 |
| 21 | 79 | 69 | 68 | 56 | 64 | 62 | 1 | 190 | 193 | 147 | 106 | 79 |
| 22 | 78 | 66 | 69 | 62 | 69 | 61 | 1 | 190 | 193 | 144 | 106 | 79 |
| 23 | 79 | 64 | 65 | 66 | 67 | 61 | 1 | 196 | 191 | 137 | 102 | 76 |
| 24 | 79 | 61 | 64 | 67 | 64 | 64 | 1 | 193 | 186 | 133 | 101 | 77 |
| 25 | 78 | 61 | 64 | 66 | 59 | 61 | 1 | 191 | 186 | 133 | 102 | 78 |
| 26 | 77 | 66 | 59 | 66 | 58 | 64 | 1 | 191 | 185 | 133 | 103 | 77 |
| 27 | 78 | 68 | 56 | 65 | 59 | 65 | 1 | 191 | 185 | 132 | 98 | 76 |
| 28 | 77 | 66 | 55 | 61 | 60 | 65 | 1 | 191 | 186 | 129 | 96 | 75 |
| 29 | 77 | 66 | 58 | 62 | - | 66 | 1 | 191 | 185 | 129 | 95 | 74 |
| 30 | 77 | 67 | 61 | 54 | - | 66 | 1 | 193 | 186 | 128 | 96 | 72 |
| 31 | 75 | - | 65 | 64 | - | 67 | - | 193 | - | 128 | 96 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runnoff in acre-feet |
|-------------------------|------------------|---------|---------|------|----------------------|
| October..... | 2,446 | 83 | 75 | 78.9 | 4,850 |
| November..... | 2,175 | 80 | 61 | 72.5 | 4,310 |
| December..... | 2,052 | 75 | 55 | 66.2 | 4,070 |
| Calendar year 1941..... | 33,592 | 186 | 0 | 92 | 66,630 |
| January..... | 1,900 | 74 | 49 | 61.3 | 3,770 |
| February..... | 1,878 | 69 | 44 | 59.9 | 3,350 |
| March..... | 1,958 | 69 | 58 | 62.5 | 3,840 |
| April..... | 3,028 | 182 | 1 | 101 | 6,012 |
| May..... | 5,757 | 196 | 105 | 196 | 11,420 |
| June..... | 5,701 | 193 | 185 | 190 | 11,310 |
| July..... | 4,978 | 186 | 188 | 161 | 9,870 |
| August..... | 3,587 | 122 | 95 | 109 | 6,780 |
| September..... | 2,523 | 96 | 72 | 84.1 | 5,000 |
| Water year 1941-42..... | 37,563 | 196 | 1 | 103 | 74,500 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Logan, Hyde Park & Smithfield Canal near Logan, Utah

Location.- Water-stage recorder and concrete rating flume, lat. 41°44'45", long. 111°47'05", in SE¼ sec. 25, T. 12 N., R. 1 E., 1¼ miles downstream from head of canal and 2½ miles east of Logan.

Records available.- June 1904 to December 1907, January 1909 to September 1942.

Average discharge.- 19 years (1923-42), 28.8 second-feet.

Extremes.- Maximum daily discharge during year, 124 second-feet June 8; no flow at times. 1906, 1924-42: Maximum daily discharge, 136 second-feet May 30, 31, 1930; no flow during periods of practically every year.

Remarks.- Records excellent except those for periods of no gage-height record, which are fair. No diversions above station. Flow regulated by head gates at diversion works. Canal diverts water from Logan River in NE¼NE¼ sec. 31, T. 12 N., R. 2 E., for irrigation and domestic supply in territory north of Logan.

Cooperation.- Four discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 4 | 4 | | | | | 4 | 2 | 106 | 58 | 35 | 26 |
| 2 | 4 | 4 | | | | | 4 | 0 | 110 | 56 | 34 | 26 |
| 3 | 4 | 4 | | | | | 4 | 0 | 88 | 52 | 34 | 26 |
| 4 | 5 | 5 | | | | | 4 | 0 | 116 | 55 | 34 | 26 |
| 5 | 5 | 5 | | | | | 4 | 0 | 123 | 55 | 33 | 25 |
| 6 | 5 | 4 | | | | a5 | 2 | 0 | 123 | 54 | 33 | 25 |
| 7 | 5 | 5 | | | | | 0 | 0 | 122 | 52 | 33 | 26 |
| 8 | 5 | 5 | | a4 | a5 | | 0 | 0 | 124 | 52 | 33 | 26 |
| 9 | 5 | 5 | | | | a6 | 0 | 0 | 123 | 52 | 33 | 26 |
| 10 | 5 | 4 | | | | | 0 | 0 | 123 | 42 | 32 | 26 |
| 11 | 5 | 4 | | | | | 0 | 0 | 122 | 41 | 32 | 26 |
| 12 | 5 | 4 | | | | | 0 | 0 | 120 | 42 | 31 | 26 |
| 13 | 5 | 4 | | | | | 0 | 0 | 119 | 42 | 30 | 27 |
| 14 | 5 | 4 | | | | | 0 | 0 | 122 | 41 | 30 | 26 |
| 15 | 5 | 4 | | | | | 0 | 0 | 115 | 41 | 30 | 26 |
| 16 | 5 | a4 | | | | a4 | 0 | 0 | 111 | 41 | 29 | 26 |
| 17 | 4 | a4 | | | | | 0 | 0 | 116 | 40 | 29 | 26 |
| 18 | 4 | a4 | | | | | 0 | 0 | 114 | 39 | 29 | 26 |
| 19 | 4 | a4 | | | | | 0 | 0 | 113 | 39 | 29 | 26 |
| 20 | 4 | a4 | | | | | 0 | 0 | 112 | 39 | 29 | 26 |
| 21 | 4 | a4 | | | | 4 | 0 | 1 | 112 | 39 | 29 | 26 |
| 22 | 4 | a4 | | | | 4 | 0 | 4 | 113 | 38 | 29 | 26 |
| 23 | 4 | a4 | | | | 4 | 0 | 12 | 111 | 38 | 29 | 26 |
| 24 | 4 | a4 | a5 | a6 | | 4 | 0 | 19 | 98 | 38 | 29 | 26 |
| 25 | 4 | a4 | | | | 4 | 2 | 20 | 95 | 38 | 29 | 26 |
| 26 | 4 | a4 | | | | 4 | 4 | 24 | 86 | 38 | 29 | 26 |
| 27 | 4 | a4 | | | | 4 | 4 | 40 | 82 | 38 | 28 | 26 |
| 28 | 4 | a4 | | | | 4 | 4 | 50 | 80 | 37 | 30 | 26 |
| 29 | 4 | a4 | | | | 4 | 4 | 66 | 76 | 37 | 30 | 26 |
| 30 | 4 | a4 | | | | - | 4 | 75 | 64 | 37 | 29 | 26 |
| 31 | 4 | - | | | | a4 | - | 89 | - | 35 | 27 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 137 | 5 | 4 | 4.4 | 272 |
| November..... | 125 | 5 | 4 | 4.2 | 248 |
| December..... | 140 | - | - | 4.5 | 278 |
| Calendar year 1941..... | 7,265 | 124 | 0 | 19.9 | 14,410 |
| January..... | 171 | - | - | 5.5 | 339 |
| February..... | 155 | - | - | 5.5 | 307 |
| March..... | 134 | - | - | 4.3 | 266 |
| April..... | 44 | 4 | 0 | 1.5 | 87 |
| May..... | 402 | 69 | 0 | 15.0 | 797 |
| June..... | 3,237 | 124 | 64 | 108 | 6,480 |
| July..... | 1,546 | 58 | 35 | 45.4 | 2,870 |
| August..... | 950 | 35 | 27 | 30.6 | 1,880 |
| September..... | 779 | 27 | 25 | 26.0 | 1,550 |
| Water year 1941-42..... | 7,620 | 124 | 0 | 21.0 | 15,110 |

a No gage-height record; discharge computed on basis of two discharge measurements made Dec. 4 and Jan. 28.
 Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Blacksmith Fork above Utah Power & Light Co.'s dam, near Hyrum, Utah

Location.- Water-stage recorder, lat. 41°37'20", long. 111°44'25", in NE¼ sec. 8, T. 10 N., R. 2 E., three-quarters of a mile upstream from diversion dam, 3½ miles upstream from power plant of Utah Power & Light Co. and 6 miles east of Hyrum.

Drainage area.- 260 square miles.

Records available.- July 1900 to December 1902, November 1913 to September 1942.

Average discharge.- 28 years (1914-42), 120 second-feet.

Extremes.- Maximum discharge during year, 201 second-feet Apr. 14 (gage height, 2.27 feet); minimum daily, 37 second-feet Feb. 19.

1913-42: Maximum discharge, 1,620 second-feet May 15, 1917 (gage height, 6.5 feet, site and datum then in use), from rating curve extended above 600 second-feet; minimum daily, 29 second-feet Jan. 3, 1935.

Remarks.- Records good except those for period of no gage-height record, which are fair. Several small irrigation diversions above station. Low-water flow may be affected by power plant above station.

Cooperation.- Water-stage recorder graph and four discharge measurements furnished by Utah Power & Light Co.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

| | | | |
|-----|----|-----|-----|
| 0.8 | 25 | 1.6 | 95 |
| 1.0 | 36 | 1.8 | 125 |
| 1.2 | 51 | 2.0 | 154 |
| 1.4 | 70 | 2.3 | 206 |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 43 | 46 | 46 | a42 | 45 | 45 | 64 | 95 | 102 | 75 | 59 | 55 |
| 2 | 43 | 47 | 46 | a38 | 45 | 43 | 72 | 94 | 101 | 74 | 57 | 54 |
| 3 | 43 | 48 | 48 | a40 | 45 | 44 | 78 | 92 | 98 | 72 | 56 | 54 |
| 4 | 43 | 48 | 52 | a40 | 45 | 44 | 103 | 90 | 96 | 74 | 56 | 54 |
| 5 | 50 | 47 | 49 | a40 | 45 | 44 | 140 | 87 | 94 | 75 | 56 | 54 |
| 6 | 61 | 47 | 46 | a40 | 45 | 45 | 110 | 86 | 94 | 74 | 56 | 52 |
| 7 | 54 | 47 | 46 | a44 | 46 | 44 | 106 | 85 | 91 | 74 | 56 | 51 |
| 8 | 45 | 47 | 46 | 48 | 46 | 44 | 108 | 85 | 88 | 72 | 56 | 51 |
| 9 | 44 | 46 | 46 | 47 | 45 | 44 | 105 | 91 | 87 | 72 | 56 | 51 |
| 10 | 44 | 46 | 46 | 47 | 45 | 45 | 113 | 96 | 87 | 70 | 56 | 52 |
| 11 | 45 | 46 | 46 | 45 | 45 | 48 | 117 | 96 | 86 | 70 | 56 | 52 |
| 12 | 45 | 46 | 45 | 45 | 45 | 49 | 126 | 102 | 85 | 70 | 56 | 53 |
| 13 | 48 | 47 | 45 | 44 | 44 | 49 | 126 | 109 | 85 | 69 | 56 | 56 |
| 14 | 47 | 46 | 45 | 45 | 43 | 49 | 171 | 96 | 85 | 68 | 56 | 56 |
| 15 | 45 | 45 | 45 | 42 | 40 | 49 | 161 | 94 | 83 | 66 | 56 | 54 |
| 16 | 45 | 46 | 45 | 45 | 41 | 48 | 130 | 94 | 82 | 67 | 56 | 54 |
| 17 | 45 | 46 | 46 | 45 | a40 | 47 | 128 | 94 | 81 | 66 | 56 | 53 |
| 18 | 45 | 49 | 47 | 45 | a38 | 46 | 126 | 94 | 80 | 67 | 56 | 54 |
| 19 | 45 | 49 | 47 | 45 | a37 | 46 | 109 | 92 | 78 | 65 | 56 | 54 |
| 20 | 46 | 48 | 47 | 42 | a40 | 46 | 112 | 92 | 76 | 65 | 56 | 54 |
| 21 | 47 | 47 | 47 | a45 | a45 | 46 | 117 | 99 | 76 | 63 | 54 | 54 |
| 22 | 48 | 47 | 46 | 47 | a48 | 46 | 124 | 108 | 75 | 62 | 54 | 54 |
| 23 | 47 | 47 | 46 | 49 | a47 | 49 | 129 | 112 | 75 | 61 | 55 | 54 |
| 24 | 47 | 47 | 47 | 46 | a45 | 51 | 117 | 120 | 75 | 60 | 55 | 54 |
| 25 | 48 | 46 | 47 | 46 | a43 | 49 | 108 | 120 | 72 | 60 | 53 | 52 |
| 26 | 48 | 45 | 46 | 47 | a42 | 49 | 101 | 122 | 77 | 60 | 54 | 51 |
| 27 | 48 | 44 | 41 | 45 | 43 | 49 | 99 | 122 | 80 | 60 | 55 | 52 |
| 28 | 48 | 44 | 43 | 46 | 43 | 49 | 105 | 117 | 78 | 59 | 54 | 52 |
| 29 | 48 | 44 | 45 | 46 | - | 49 | 103 | 113 | 77 | 59 | 55 | 52 |
| 30 | 48 | 45 | 46 | 45 | - | 53 | 98 | 109 | 72 | 58 | 55 | 52 |
| 31 | 46 | - | 46 | 45 | - | 59 | - | 106 | - | 57 | 55 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,449 | 61 | 43 | 46.7 | 2,870 |
| November..... | 1,394 | 49 | 44 | 46.5 | 2,760 |
| December..... | 1,429 | 47 | 41 | 46.1 | 2,830 |
| Calendar year 1941..... | 19,170 | 99 | 41 | 52.5 | 36,000 |
| January..... | 1,374 | 49 | 38 | 45.8 | 2,730 |
| February..... | 1,219 | 48 | 37 | 45.7 | 2,420 |
| March..... | 1,466 | 59 | 43 | 47.3 | 2,910 |
| April..... | 3,403 | 171 | 64 | 113 | 6,750 |
| May..... | 3,110 | 122 | 35 | 100 | 6,170 |
| June..... | 2,516 | 102 | 72 | 83.9 | 4,990 |
| July..... | 2,064 | 76 | 57 | 66.6 | 4,080 |
| August..... | 1,722 | 59 | 53 | 55.5 | 3,420 |
| September..... | 1,592 | 55 | 51 | 55.1 | 3,160 |
| Water year 1941-42..... | 22,738 | 171 | 37 | 62.3 | 45,100 |

a No gage-height record; discharge computed on basis of combined flow record for stations on Logan River above State dam, and Logan, Hyde Park and Smithfield Canal near Logan, and weather records.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

West Side Canal near Collinston, Utah

Location.- Water-stage recorder, lat. 49°50', long. 112°04', in SW¹/₄ sec. 27, T. 13 N., R. 2 W., 4,200 feet downstream from Cutler Dam and 4 miles north of Collinston.

Records available.- June 1912 to September 1942.

Average discharge.- 30 years, 224 second-feet.

Extremes.- Maximum daily discharge during year, 694 second-feet July 12; no flow Mar. 18 to Apr. 26.

1912-42: Maximum daily discharge, 709 second-feet June 20, 1941; no flow during periods of every year except 1914.

Remarks.- Records good. Canal diverts from west side of Bear River in NW¹/₄SW¹/₄ sec. 26, T. 13 N., R. 2 W., at dam at which Hammond (East Side) Canal and intake of Cutler power plant also divert. Water used for irrigation in eastern Box Elder County.

Cooperation.- Water-stage recorder graph and three discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | | | | | | |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|-----|-----|-----|-----|-----|-----|
| 1 | 301 | 92 | 76 | } | } | } | 0 | 41 | 321 | 409 | 535 | 575 | | | | | | |
| 2 | 294 | 92 | 76 | | | | 0 | 37 | 429 | 442 | 535 | 575 | | | | | | |
| 3 | 278 | 94 | 76 | | | | 0 | 37 | 569 | 579 | 535 | 575 | | | | | | |
| 4 | 276 | 93 | 76 | | | | 0 | 38 | 576 | 615 | 520 | 565 | | | | | | |
| 5 | 227 | 94 | 76 | | | | 0 | 35 | 600 | 637 | 517 | 554 | | | | | | |
| 6 | 148 | 94 | 76 | | | | } | } | } | 0 | 38 | 629 | 661 | 522 | 566 | | | |
| 7 | 103 | 94 | 76 | | | | | | | 0 | 71 | 639 | 684 | 552 | 564 | | | |
| 8 | 105 | 94 | 76 | | | | | | | 0 | 100 | 645 | 684 | 550 | 542 | | | |
| 9 | 105 | 96 | 76 | | | | | | | } | } | } | 0 | 99 | 661 | 686 | 567 | 528 |
| 10 | 102 | 95 | 76 | | | | | | | | | | 0 | 125 | 669 | 684 | 603 | 582 |
| 11 | 104 | 93 | 76 | | | | | | | } | } | } | 0 | 129 | 667 | 690 | 619 | 508 |
| 12 | 104 | 87 | 76 | | | | | | | | | | 0 | 98 | 680 | 694 | 601 | 438 |
| 13 | 97 | 84 | 76 | | | | | | | | | | 0 | 98 | 680 | 692 | 598 | 400 |
| 14 | 88 | 84 | 76 | | | | | | | | | | 0 | 98 | 677 | 690 | 584 | 387 |
| 15 | 88 | 85 | 76 | | | | | | | | | | } | } | } | 0 | 95 | 643 |
| 16 | 92 | 86 | 76 | 0 | 95 | 623 | 680 | 579 | 389 | | | | | | | | | |
| 17 | 92 | 85 | 76 | } | } | } | 0 | 35 | 627 | | | | 689 | 560 | 387 | | | |
| 18 | 85 | 84 | 76 | | | | 0 | 68 | 621 | | | | 633 | 579 | 389 | | | |
| 19 | 93 | 84 | 76 | | | | 0 | 0 | 120 | | | | 625 | 629 | 560 | 389 | | |
| 20 | 93 | 80 | 76 | | | | 0 | 0 | 112 | | | | 596 | 613 | 584 | 389 | | |
| 21 | 94 | 76 | 76 | | | | } | } | } | 0 | 0 | 120 | 571 | 611 | 605 | 389 | | |
| 22 | 93 | 80 | 76 | | | | | | | 0 | 0 | 169 | 579 | 609 | 613 | 385 | | |
| 23 | 92 | 80 | 76 | | | | | | | 0 | 0 | 168 | 579 | 611 | 596 | 384 | | |
| 24 | 91 | 78 | 47 | | | | | | | 0 | 0 | 169 | 580 | 615 | 586 | 384 | | |
| 25 | 90 | 78 | 22 | | | | | | | 0 | 0 | 187 | 580 | 615 | 598 | 380 | | |
| 26 | 91 | 77 | 22 | | | | | | | 0 | 0 | 219 | 528 | 613 | 601 | 363 | | |
| 27 | 93 | 77 | 22 | 0 | 48 | 227 | | | | 447 | 594 | 592 | 363 | | | | | |
| 28 | 94 | 77 | 22 | 0 | 53 | 201 | | | | 401 | 560 | 592 | 367 | | | | | |
| 29 | 92 | 79 | 22 | - | 0 | 50 | | | | 175 | 363 | 526 | 360 | | | | | |
| 30 | 91 | 79 | a21 | - | 0 | 44 | | | | 162 | 363 | 531 | 573 | 340 | | | | |
| 31 | 91 | - | a20 | - | 0 | - | 225 | - | 531 | 571 | - | | | | | | | |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 3,892 | 301 | 88 | 126 | 7,720 |
| November..... | 2,571 | 96 | 76 | 85.7 | 5,100 |
| December..... | 1,950 | 78 | 20 | 62.9 | 3,870 |
| Calendar year 1941..... | 82,233 | 709 | 0 | 225 | 165,100 |
| January..... | 589 | - | - | 19 | 1,170 |
| February..... | 532 | - | - | 19 | 1,060 |
| March..... | 316 | - | 0 | 10.2 | 627 |
| April..... | 195 | 55 | 0 | 6.5 | 387 |
| May..... | 3,594 | 227 | 37 | 116 | 7,130 |
| June..... | 17,154 | 680 | 321 | 572 | 34,020 |
| July..... | 19,177 | 694 | 409 | 619 | 38,040 |
| August..... | 17,843 | 619 | 517 | 576 | 35,990 |
| September..... | 15,302 | 575 | 340 | 443 | 28,980 |
| Water year 1941-42..... | 81,115 | 694 | 0 | 222 | 160,900 |

a No gage-height record; discharge computed on basis of discharge measurement on Jan. 29 and power plant operator's notes on changes at head gates.
 Note.- Discharge computed from once daily staff gage reading Nov. 20 to Dec. 29.
 Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.
 To convert war time to standard time, subtract 1 hour.

Hammond (East Side) Canal near Collinston, Utah

Location.- Water-stage recorder, lat. 41°50', long. 112°03', in SE $\frac{1}{4}$ sec. 27, T. 13 N., R. 2 W., 3,600 feet downstream from Cutler Dam and 4 miles north of Collinston.

Records available.- June 1912 to September 1942.

Average discharge.- 25 years (1917-42), 51.0 second-feet.

Extremes.- Maximum daily discharge during year, 157 second-feet July 11-15; no flow Nov. 21 to May 12.

1912-42: Maximum daily discharge, 182 second-feet June 28, July 1, 1932, June 27, 28, 1933; no flow for periods during each year.

Remarks.- Records good. Canal diverts from east side of Bear River in NW $\frac{1}{4}$ sec. 26, T. 13 N., R. 2 W., at dam at which West Side Canal and intake of Cutler power plant also divert. Water used for irrigation in eastern Box Elder County.

Cooperation.- Water-stage recorder graph and two discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 54 | 18 | | | | | | 0 | 45 | 74 | 135 | 128 |
| 2 | 54 | 18 | | | | | | 0 | 70 | 122 | 134 | 128 |
| 3 | 56 | 18 | | | | | | 0 | 95 | 143 | 156 | 128 |
| 4 | 56 | 18 | | | | | | 0 | 114 | 147 | 154 | 128 |
| 5 | 41 | 18 | | | | | | 0 | 125 | 150 | 154 | 128 |
| 6 | 22 | 19 | | | | | | 0 | 155 | 154 | 137 | 128 |
| 7 | 10 | 19 | | | | | | 0 | 159 | 155 | 140 | 128 |
| 8 | 10 | 18 | | | | | | 0 | 159 | 156 | 142 | 125 |
| 9 | 10 | 18 | | | | | | 0 | 140 | 156 | 148 | 118 |
| 10 | 10 | 18 | | | | | | 0 | 139 | 156 | 145 | 118 |
| 11 | 10 | 16 | | | | | | 0 | 148 | 157 | 147 | 110 |
| 12 | 10 | 15 | | | | | | 0 | 149 | 157 | 146 | 85 |
| 13 | 11 | 15 | | | | | | 11 | 149 | 157 | 149 | 20 |
| 14 | 10 | 15 | | | | | | 34 | 149 | 157 | 150 | 51 |
| 15 | 10 | 11 | | | | | | 34 | 146 | 157 | 149 | 65 |
| 16 | 10 | 9 | | | | | | 35 | 140 | 153 | 149 | 71 |
| 17 | 10 | 9 | | | | | | 35 | 141 | 150 | 150 | 73 |
| 18 | 10 | 9 | | | | | | 35 | 140 | 140 | 149 | 73 |
| 19 | 10 | 9 | | | | | | 35 | 142 | 141 | 150 | 72 |
| 20 | 10 | 1 | | | | | | 35 | 141 | 139 | 150 | 73 |
| 21 | 9 | 0 | | | | | | 35 | 141 | 140 | 150 | 73 |
| 22 | 9 | 0 | | | | | | 40 | 143 | 142 | 150 | 79 |
| 23 | 9 | 0 | | | | | | 68 | 142 | 142 | 150 | 90 |
| 24 | 9 | 0 | | | | | | 68 | 141 | 143 | 149 | 94 |
| 25 | 9 | 0 | | | | | | 68 | 142 | 143 | 148 | 89 |
| 26 | 9 | 0 | | | | | | 70 | 133 | 145 | 150 | 84 |
| 27 | 18 | 0 | | | | | | 49 | 110 | 143 | 147 | 82 |
| 28 | 24 | 0 | | | | | | 27 | 60 | 138 | 140 | 80 |
| 29 | 17 | 0 | | | | | | 22 | 60 | 130 | 133 | 78 |
| 30 | 17 | 0 | | | | | | 20 | 76 | 123 | 128 | 77 |
| 31 | 18 | - | | | | | | 23 | - | 126 | 128 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 572 | 56 | 9 | 18.5 | 1,130 |
| November..... | 285 | 19 | 0 | 9.5 | 565 |
| December..... | 0 | 0 | 0 | 0 | 0 |
| Calendar year 1941..... | 17,634 | 161 | 0 | 46.3 | 34,980 |
| January..... | 0 | 0 | 0 | 0 | 0 |
| February..... | 0 | 0 | 0 | 0 | 0 |
| March..... | 0 | 0 | 0 | 0 | 0 |
| April..... | 0 | 0 | 0 | 0 | 0 |
| May..... | 745 | 70 | 0 | 24.0 | 1,480 |
| June..... | 3,732 | 149 | 45 | 124 | 7,400 |
| July..... | 4,434 | 157 | 74 | 143 | 8,790 |
| August..... | 4,447 | 150 | 128 | 143 | 8,820 |
| September..... | 2,744 | 123 | 20 | 51.5 | 5,440 |
| Water year 1941-42..... | 16,959 | 157 | 0 | 46.5 | 33,640 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Malad River below springs, near Malad, Idaho

Location.- Water-stage recorder, lat. 42°13', long. 112°22', in sec. 10, T. 14 S., R. 35 E., half a mile downstream from springs which form river, 1 3/8 miles upstream from Samaria Dam, 8 1/2 miles upstream from Little Malad River, and 5 1/2 miles northwest of Malad.

Records available.- November 1940 to September 1942. November 1931 to September 1932 at site 1 1/2 miles downstream.

Extremes.- Maximum discharge during year, 14 second-feet May 6-24; maximum gage height, 1.62 feet May 24, due to obstruction; minimum discharge, 6.2 second-feet Dec. 13; minimum gage height, 1.00 foot Oct. 21-23.
1931-32, 1940-42: Maximum discharge, 19 second-feet Aug. 18, 1941 (gage height, 1.84 feet); minimum observed, 4.4 second-feet Nov. 3, 1931 (discharge measurement).

Remarks.- Records good. No diversion or regulation above station.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 8.3 | 7.4 | 6.6 | 6.7 | 8.6 | 9.4 | 10 | 13 | 13 | 10 | 9.0 | 8.6 |
| 2 | 8.2 | 7.5 | 6.7 | 6.8 | 8.6 | 9.5 | 10 | 13 | 13 | 10 | 9.0 | 8.4 |
| 3 | 8.2 | 7.4 | 6.8 | 6.9 | 8.7 | 9.5 | 10 | 13 | 13 | 10 | 9.0 | 8.4 |
| 4 | 8.2 | 7.4 | 6.6 | 6.9 | 8.8 | 9.4 | 10 | 13 | 13 | 10 | 9.0 | 8.3 |
| 5 | 8.1 | 7.4 | 6.6 | 6.9 | 8.8 | 9.5 | 10 | 13 | 12 | 10 | 9.0 | 8.3 |
| 6 | 8.1 | 7.4 | 6.6 | 6.9 | 8.9 | 9.4 | 10 | 13 | 12 | 10 | 9.0 | 8.2 |
| 7 | 8.1 | 7.5 | 6.6 | 6.9 | 8.9 | 9.4 | 10 | 14 | 12 | 10 | 9.0 | 8.1 |
| 8 | 8.0 | 7.6 | 6.6 | 7.0 | 8.9 | 9.5 | 10 | 14 | 12 | 9.9 | 9.0 | 8.1 |
| 9 | 8.0 | 7.5 | 6.6 | 7.1 | 9.0 | 9.7 | 10 | 14 | 12 | 9.8 | 9.0 | 8.0 |
| 10 | 8.0 | 7.5 | 6.6 | 7.2 | 8.9 | 9.7 | 11 | 14 | 12 | 9.8 | 9.0 | 8.0 |
| 11 | 8.0 | 7.5 | 6.6 | 7.2 | 9.0 | 9.7 | 11 | 14 | 12 | 9.7 | 9.0 | 8.0 |
| 12 | 8.1 | 7.4 | 6.4 | 7.3 | 9.2 | 9.7 | 11 | 14 | 12 | 9.6 | 9.0 | 8.2 |
| 13 | 7.9 | 7.3 | 6.3 | 7.3 | 9.2 | 9.8 | 11 | 14 | 12 | 9.6 | 8.9 | 8.1 |
| 14 | 7.6 | 7.2 | 6.4 | 7.4 | 9.2 | 9.7 | 11 | 14 | 12 | 9.7 | 8.9 | 8.1 |
| 15 | 7.8 | 7.2 | 6.4 | 7.4 | 9.2 | 9.7 | 11 | 14 | 12 | 9.7 | 8.9 | 8.1 |
| 16 | | | | | | | | | | | | |
| 18 | 7.8 | 7.2 | 6.4 | 7.4 | 9.3 | 9.8 | 11 | 14 | 11 | 9.7 | 8.9 | 8.0 |
| 17 | 7.6 | 7.3 | 6.3 | 7.5 | 9.0 | 9.8 | 11 | 14 | 11 | 9.7 | 8.9 | 8.0 |
| 18 | 7.6 | 7.2 | 6.4 | 7.5 | 9.2 | 9.9 | 12 | 14 | 11 | 9.6 | 8.8 | 7.9 |
| 19 | 7.8 | 7.1 | 6.4 | 7.6 | 9.3 | 9.8 | 11 | 14 | 11 | 9.6 | 8.8 | 7.9 |
| 20 | 7.5 | 7.1 | 6.4 | 7.6 | 9.3 | 9.8 | 12 | 14 | 11 | 9.4 | 8.8 | 7.9 |
| 21 | 7.6 | 7.0 | 6.4 | 7.6 | 9.4 | 9.8 | 12 | 14 | 11 | 9.3 | 8.8 | 8.0 |
| 22 | 7.5 | 6.9 | 6.5 | 7.8 | 9.4 | 9.9 | 12 | 14 | 11 | 9.3 | 8.7 | 8.0 |
| 23 | 7.5 | 7.0 | 6.6 | 7.9 | 9.3 | 10 | 12 | 14 | 11 | 9.3 | 8.7 | 8.0 |
| 24 | 7.5 | 6.9 | 6.4 | 7.9 | 9.4 | 10 | 12 | 14 | 11 | 9.3 | 8.6 | 8.0 |
| 25 | 7.5 | 6.9 | 6.3 | 8.1 | 9.3 | 9.9 | 12 | 13 | 11 | 9.3 | 8.7 | 8.0 |
| 26 | 7.4 | 6.8 | 6.5 | 8.2 | 9.4 | 9.9 | 12 | 13 | 11 | 9.2 | 8.7 | 7.9 |
| 27 | 7.5 | 6.8 | 6.5 | 8.4 | 9.4 | 10 | 12 | 13 | 11 | 9.2 | 8.6 | 7.9 |
| 28 | 7.6 | 6.8 | 6.6 | 8.4 | 9.3 | 10 | 12 | 13 | 11 | 9.2 | 8.6 | 7.9 |
| 29 | 7.5 | 6.7 | 6.7 | 8.3 | - | 10 | 12 | 13 | 10 | 9.2 | 8.6 | 7.9 |
| 30 | 7.4 | 6.7 | 6.8 | 8.4 | - | 10 | 13 | 13 | 10 | 9.2 | 8.6 | 7.9 |
| 31 | 7.5 | - | 6.8 | 8.4 | - | 10 | - | 13 | - | 9.2 | 8.6 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 241.4 | 8.3 | 7.4 | 7.79 | 479 |
| November | 215.6 | 7.6 | 6.7 | 7.19 | 428 |
| December | 202.4 | 6.8 | 6.3 | 6.55 | 401 |
| Calendar year 1941 | 3,389.9 | 14 | 6.3 | 9.29 | 6,720 |
| January | 232.9 | 8.4 | 6.7 | 7.51 | 462 |
| February | 254.9 | 9.4 | 8.6 | 9.10 | 506 |
| March | 302.2 | 10 | 9.4 | 9.75 | 599 |
| April | 333 | 13 | 10 | 11.1 | 660 |
| May | 421 | 14 | 13 | 13.6 | 835 |
| June | 347 | 13 | 10 | 11.6 | 686 |
| July | 297.1 | 10 | 9.2 | 9.68 | 589 |
| August | 274.1 | 9.0 | 8.6 | 8.84 | 544 |
| September | 242.0 | 8.6 | 7.9 | 8.07 | 480 |
| Water year 1941-42 | 3,363.6 | 14 | 6.3 | 9.22 | 6,670 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Malad River near Samaria, Idaho

Location.- Water-stage recorder, lat. 42°06', long. 112°20', in sec. 11, T. 15 S., R. 35 E., at Lewis Waldron Ranch, a quarter of a mile upstream from bridge on Malad-Samaria highway, three-eighths of a mile downstream from Gwenford Mill ditch, and 1¼ miles north of Samaria.

Records available.- December 1940 to September 1942.

Extremes.- Maximum discharge during year, 48 second-feet Aug. 25 (gage height, 1.85 feet), from rating curve extended above 15 second-feet; minimum, 0.3 second-foot Sept. 8, 9 (gage height, 0.36 foot).

1940-42: Maximum discharge, 64 second-feet Aug. 17, 1941 (gage height, 2.19 feet), from rating curve extended above 15 second-feet; minimum, 0.2 second-foot May 10 and July 13, 1941; minimum gage height, 0.36 foot May 10, 1941, Sept. 8, 9, 1942.

Remarks.- Records fair except those for period May 1 to Aug. 14, which are poor. FLOW regulated by Samaria Reservoir and augmented by waste from Malad River by-pass channel and from Warm Springs Canal. Many diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 3.6 | 5.9 | 7.1 | 8.2 | 9.9 | 8.4 | 9.9 | 8.4 | 2.9 | | | 1.5 |
| 2 | 3.9 | 7.4 | 7.7 | 8.2 | 9.9 | | 10 | 8.4 | 1.2 | | | 1.1 |
| 3 | 4.3 | 6.1 | 8.2 | 8.2 | 9.9 | | 9.9 | 8.2 | .9 | | | .9 |
| 4 | 4.6 | 6.1 | 7.9 | 7.9 | 9.9 | | 11 | 9.3 | .9 | | e1.0 | .9 |
| 5 | 5.4 | 5.9 | 7.1 | 8.4 | 10 | a9.0 | 9.9 | 10 | .9 | | | 1.1 |
| 6 | 5.7 | 6.1 | 6.9 | 8.7 | 10 | | 9.9 | 8.7 | .9 | | | .9 |
| 7 | 4.8 | 6.1 | 6.6 | 9.3 | 10 | | 9.9 | 8.4 | 1.1 | e2.2 | | .8 |
| 8 | 5.4 | 6.1 | 7.4 | 9.3 | 10 | | 10 | 8.7 | 1.2 | | | .6 |
| 9 | 5.2 | 6.1 | 9.3 | 9.3 | 10 | 9.6 | 9.9 | 8.7 | 1.7 | | | .3 |
| 10 | 4.8 | 6.1 | 9.6 | 9.3 | 9.9 | 10 | 9.9 | 9.3 | 2.7 | | e2.5 | .6 |
| 11 | 5.9 | 6.1 | 9.9 | | 10 | 9.9 | 9.9 | 9.6 | | | | 1.0 |
| 12 | 6.4 | 6.1 | 9.9 | | 9.9 | 12 | 10 | 7.1 | | | | 3.4 |
| 13 | 6.1 | 6.1 | 9.6 | | 9.9 | 11 | 10 | 6.1 | | | | 2.0 |
| 14 | 5.7 | 5.9 | 8.4 | a9.0 | 9.9 | 10 | 10 | 6.1 | | | 3.0 | 2.0 |
| 15 | 5.9 | 6.1 | 7.4 | | 9.9 | 9.9 | 10 | 6.6 | | | | 2.4 |
| 16 | 5.9 | 6.6 | 7.1 | | | 10 | 11 | 7.4 | | | 3.2 | 3.4 |
| 17 | 5.7 | 7.4 | 7.1 | 8.7 | | 10 | 11 | 6.9 | | | 3.0 | 2.2 |
| 18 | 5.7 | 6.9 | 7.4 | 8.4 | a9.0 | 9.9 | 10 | 7.7 | | | 3.6 | 2.5 |
| 19 | 6.9 | 5.4 | 6.9 | 7.9 | | 9.3 | 11 | 8.4 | | | 3.0 | 2.6 |
| 20 | 6.6 | 6.4 | 7.7 | | | 9.0 | 11 | 8.2 | e2.2 | | 2.9 | 2.3 |
| 21 | 6.6 | 6.4 | 7.9 | a8.3 | 8.4 | 9.3 | 11 | 8.7 | | e1.5 | 2.7 | 2.4 |
| 22 | 5.9 | 6.1 | 7.1 | | 8.7 | 9.9 | 11 | 9.6 | | | 2.9 | 2.5 |
| 23 | 5.7 | 6.1 | 7.1 | | | 10 | 10 | - | | | 3.0 | 2.6 |
| 24 | 5.9 | 5.9 | 7.4 | 8.7 | | 9.6 | 7.1 | 7.7 | | | 3.0 | 2.8 |
| 25 | 5.9 | 5.7 | 7.4 | 9.0 | | 9.3 | 7.7 | 4.3 | | | 6.6 | 3.4 |
| 26 | 5.9 | 6.6 | 7.1 | 9.0 | | 9.6 | 8.4 | 2.9 | | | 3.6 | 3.3 |
| 27 | 5.9 | 6.4 | 7.1 | 9.6 | | 10 | 8.4 | 1.8 | | | 3.2 | 3.3 |
| 28 | 6.1 | 6.6 | 6.9 | 10 | 8.7 | 10 | 8.4 | 1.4 | | | 2.5 | 3.4 |
| 29 | 5.9 | 6.6 | 7.4 | 9.6 | - | 9.9 | - | 1.7 | | | 2.0 | 3.5 |
| 30 | 5.9 | 6.9 | 8.7 | 9.3 | - | 10 | 8.2 | 1.6 | | e1.0 | 3.0 | 3.4 |
| 31 | 5.9 | - | 8.7 | 9.6 | - | 9.6 | - | 1.4 | | | 2.2 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-foot |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 174.1 | 6.9 | 3.6 | 5.62 | 345 |
| November..... | 189.2 | 7.4 | 5.7 | 6.31 | 375 |
| December..... | 242.0 | 9.9 | 6.6 | 7.61 | 480 |
| Calendar year 1941..... | 1,918.5 | 16 | .3 | 5.26 | 3,810 |
| January..... | 273.8 | 10 | - | 8.85 | 543 |
| February..... | 263.4 | - | - | 9.41 | 522 |
| March..... | 299.9 | 12 | - | 9.65 | 595 |
| April..... | 292.6 | 11 | 7.1 | 9.75 | 580 |
| May..... | 213.3 | 10 | 1.4 | 6.88 | 423 |
| June..... | 58.4 | - | - | 1.95 | 116 |
| July..... | 55.5 | - | - | 1.79 | 110 |
| August..... | 80.9 | 6.6 | - | 2.61 | 160 |
| September..... | 63.1 | 3.5 | .3 | 2.10 | 125 |
| Water year 1941-42..... | 2,205.5 | 12 | .3 | 6.04 | 4,370 |

a No gage-height record; discharge interpolated.
 e Stage-discharge relation indefinite; discharge computed on basis of discharge measurement of July 16, gage-height record, records for nearby streams, and information regarding diversions.
 Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.
 To convert war time to standard time, subtract 1 hour.

Malad River at Woodruff, Idaho

Location.- Staff gage, lat. 42°02', long. 112°14', in sec. 15, T. 16 S., R. 36 E., at bridge on county road at Woodruff, 2½ miles north of Idaho-Utah State line.

Records available.- November 1938 to September 1942.

Extremes.- Maximum discharge observed during year, 341 second-feet Apr. 1 (gage height, 6.40 feet), from rating curve extended above 250 second-feet; minimum observed, 18 second-feet Aug. 6-8, 28 (gage height, 2.04 feet).
1938-42: Maximum discharge observed, 360 second-feet Mar. 20, 21, 1939, Mar. 2, 1941 (gage height, 6.70 feet), from rating curve extended above 250 second-feet; minimum observed, 15 second-feet July 15, 16, 1940; minimum gage height observed, 1.98 feet May 20, 1939, July 16, 1940.

Remarks.- Records fair. Gage read once daily. Flow regulated by several small reservoirs above station. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 26 | 42 | 62 | d60 | 100 | 59 | 341 | 85 | 33 | 24 | 20 | 20 |
| 2 | 26 | 43 | 62 | d55 | 100 | 62 | 352 | 77 | 58 | 24 | 20 | 20 |
| 3 | 27 | 46 | 62 | d50 | 100 | 62 | 353 | 80 | 48 | 24 | 20 | 20 |
| 4 | 27 | 48 | 65 | 53 | 104 | 74 | 305 | 80 | 48 | 24 | 19 | 20 |
| 5 | 27 | 50 | 62 | 50 | 104 | 74 | 305 | 104 | 48 | 24 | 19 | 20 |
| 6 | 27 | 59 | 62 | 50 | 118 | 71 | 279 | 139 | 42 | 23 | 18 | 20 |
| 7 | 27 | 62 | | 50 | 118 | 71 | 223 | 118 | 42 | 23 | 18 | 20 |
| 8 | 27 | 62 | | 50 | 77 | 77 | 183 | 90 | 42 | 23 | 18 | 20 |
| 9 | 27 | 65 | d60 | 50 | 69 | 77 | 160 | 77 | 40 | 23 | 19 | 20 |
| 10 | 27 | 62 | | 50 | 55 | 104 | 163 | 74 | 40 | 23 | 20 | 20 |
| 11 | 26 | 62 | 62 | 50 | | 118 | 153 | 77 | 40 | 23 | 21 | 19 |
| 12 | 26 | 59 | 65 | 50 | | 132 | 153 | 97 | 40 | 22 | 21 | 19 |
| 13 | 27 | 59 | 68 | | | 175 | 153 | 167 | 40 | 21 | 21 | 21 |
| 14 | 28 | 59 | 71 | | | 175 | 146 | 167 | 39 | 28 | 21 | 21 |
| 15 | 27 | 59 | | d50 | d50 | 183 | 139 | 146 | 39 | 24 | 21 | 22 |
| 18 | 33 | | | | | 191 | 139 | 125 | 34 | 24 | 21 | 24 |
| 17 | 33 | | | | | 191 | 139 | 132 | 27 | 24 | 21 | 26 |
| 18 | 32 | | | 48 | | 191 | 139 | 139 | 27 | 22 | 22 | 22 |
| 19 | 34 | d50 | | 53 | | 191 | 123 | 132 | 27 | 22 | 22 | 22 |
| 20 | 34 | | | 53 | 53 | 132 | 90 | 125 | 27 | 22 | 19 | 24 |
| 21 | 36 | 65 | | 53 | 53 | 132 | 80 | 104 | 27 | 22 | 19 | 24 |
| 22 | 36 | 65 | d65 | 50 | 53 | 139 | 77 | 90 | 26 | 23 | 20 | 25 |
| 23 | 32 | 65 | | 50 | 53 | 146 | 80 | 90 | 26 | 24 | 20 | 23 |
| 24 | 33 | 65 | | 50 | 56 | 160 | 83 | 90 | 26 | 23 | 20 | 22 |
| 25 | 36 | 62 | | 65 | 53 | 175 | 85 | 86 | 24 | 23 | 20 | 22 |
| 26 | d36 | 62 | | 77 | 53 | d175 | 83 | 83 | 24 | 22 | 20 | 21 |
| 27 | d56 | 62 | | 83 | 56 | d175 | 83 | 83 | 24 | 21 | 20 | 20 |
| 28 | 36 | 62 | | 90 | 56 | d175 | 83 | 71 | 24 | 21 | 18 | 20 |
| 29 | 38 | 62 | | 90 | - | 160 | 83 | 56 | 24 | 21 | 19 | 19 |
| 30 | 40 | 62 | | 104 | - | 263 | 83 | 46 | 24 | 20 | 19 | 19 |
| 31 | 42 | - | | 104 | - | 296 | - | 34 | - | 21 | 20 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 970 | 42 | 25 | 31.3 | 1,920 |
| November..... | 1,769 | 65 | 42 | 59.0 | 3,510 |
| December..... | 1,986 | - | - | 64.1 | 3,940 |
| Calendar year 1941..... | 22,000 | 360 | 18 | 60.3 | 43,620 |
| January..... | 1,838 | 104 | - | 59.3 | 3,650 |
| February..... | 1,887 | 118 | - | 67.4 | 3,740 |
| March..... | 4,406 | 296 | 59 | 142 | 8,740 |
| April..... | 4,798 | 341 | 77 | 160 | 9,520 |
| May..... | 3,062 | 167 | 34 | 93.8 | 6,070 |
| June..... | 1,028 | 56 | 24 | 34.3 | 2,040 |
| July..... | 708 | 28 | 20 | 22.8 | 1,400 |
| August..... | 616 | 22 | 18 | 19.9 | 1,220 |
| September..... | 635 | 26 | 19 | 21.2 | 1,260 |
| Water year 1941-42..... | 23,703 | 341 | 18 | 64.9 | 47,010 |

d Doubtful gage-height record; discharge computed on basis of records for Little Malad River stations and weather records.

Time basis; Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Warm Springs Canal near Samaria, Idaho

Location.- Water-stage recorder, lat. 42°09', long. 112°21', in sec. 3, T. 15 S., R. 35 E., at Elmer Price Ranch, 50 feet downstream from Malad River by-pass channel crossing, a quarter of a mile south of Malad-Pleasantview highway, 0.6 mile southwest of Pleasantview school, and 2½ miles northwest of Samaria.

Records available.- December 1940 to September 1942.

Extremes.- Maximum discharge during year, 21 second-feet Aug. 25, from rating curve extended above 15 second-feet; maximum gage height, 1.39 feet July 2, affected by backwater from aquatic vegetation; minimum discharge, 4.7 second-feet Mar. 9; minimum gage height, 0.13 foot Jan. 22.

1940-42: Maximum discharge (revised), 27 second-feet Aug. 17, 1941, from rating curve extended above 13 second-feet; maximum gage height, that of July 2, 1942; minimum discharge, 2.8 second-feet Apr. 7, 1941; minimum gage height, that of Jan. 22, 1942.

Revisions: The maximum discharge for the water year 1941 supersedes figure published in Water-Supply Paper 930.

Remarks.- Records fair except those for period of indefinite stage-discharge relation, which are poor. Warm Springs Canal diverts water from springs in NE¼ sec. 3, T. 15 S., R. 35 E., for irrigation in east half of T. 15 S., R. 35 E., above and below Samaria. Diversions may be made to or from Malad River by-pass channel, which crosses canal above station.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 15 | 13 | 7.6 | a6.8 | 6.0 | 6.2 | 5.8 | 18 | 6.0 | | | 6.6 |
| 2 | 14 | 14 | 7.4 | b6.8 | 6.0 | 7.6 | 5.9 | 16 | 6.2 | e12 | | 6.7 |
| 3 | 20 | 14 | 9.2 | | 6.2 | 7.8 | 6.0 | 15 | 7.6 | | | 7.1 |
| 4 | 16 | 14 | 11 | | 6.6 | 6.0 | 5.9 | 15 | 9.7 | | | 7.1 |
| 5 | 8.8 | 14 | 9.9 | | 6.6 | 6.0 | 5.8 | 11 | 11 | | | 7.1 |
| 6 | 8.8 | 13 | 9.2 | a7.0 | 6.6 | 5.3 | 5.8 | 6.4 | 12 | | | 7.1 |
| 7 | 10 | 13 | 9.0 | | 6.7 | 5.3 | 5.8 | 6.7 | 12 | | e6 | 7.3 |
| 8 | 14 | 12 | 8.6 | | 6.7 | 5.2 | 5.8 | 6.7 | 12 | | | 7.3 |
| 9 | 13 | 11 | 6.6 | 7.3 | 6.9 | 6.0 | 5.8 | 8.0 | 12 | | | 7.8 |
| 10 | 15 | 11 | 7.4 | 7.5 | 6.7 | 5.6 | 5.8 | 8.4 | 12 | | | 7.1 |
| 11 | 14 | 11 | 7.6 | 7.6 | 6.6 | 5.6 | 5.9 | 9.0 | | | | 7.5 |
| 12 | 15 | 11 | 7.6 | 7.6 | 6.6 | 5.8 | 5.9 | 9.0 | | | | 9.0 |
| 13 | 14 | 9.9 | 7.4 | 7.5 | 6.4 | 5.6 | 6.0 | 7.6 | | | | 6.6 |
| 14 | 13 | 9.9 | 8.6 | 7.3 | 6.4 | 5.4 | 6.0 | 7.5 | | | 6.0 | 9.9 |
| 15 | 15 | 9.9 | 9.9 | 7.3 | 6.4 | 6.6 | 6.2 | 7.3 | | | | 9.9 |
| 16 | 12 | 9.9 | 9.9 | 7.3 | 6.0 | 5.6 | 6.2 | 7.3 | | | | 9.7 |
| 17 | 10 | 9.9 | 9.7 | 7.5 | 5.4 | 5.4 | 6.2 | 7.6 | | | 6.6 | 10 |
| 18 | 12 | 9.9 | 9.2 | 7.1 | 5.6 | 5.6 | 6.2 | 7.6 | | | 6.2 | 11 |
| 19 | 15 | 10 | 8.6 | 6.2 | 5.6 | 5.4 | 6.2 | 7.5 | | | 6.4 | 9.7 |
| 20 | 12 | 9.9 | 8.4 | 5.9 | 5.4 | 5.6 | 6.2 | 7.6 | | | 6.4 | 8.6 |
| 21 | 11 | 9.9 | 8.2 | 5.4 | 5.4 | 5.6 | 6.2 | 7.1 | e12 | | 6.7 | 9.0 |
| 22 | 13 | 9.7 | 7.2 | 5.4 | 5.8 | 5.6 | 6.4 | 6.4 | | | 7.8 | 9.3 |
| 23 | 13 | 9.2 | 7.2 | 5.3 | 5.3 | 5.6 | 6.4 | 6.0 | | e7 | 5.8 | 9.6 |
| 24 | 14 | 9.2 | 7.4 | 5.4 | 5.4 | 5.3 | 7.8 | 6.2 | | | 15 | 9.6 |
| 25 | 14 | 9.2 | 7.2 | 5.6 | 5.2 | 5.4 | 6.2 | 7.5 | | | 14 | 9.7 |
| 26 | 11 | 8.8 | 6.8 | 5.8 | 5.3 | 5.3 | 5.9 | 7.6 | | | 8.6 | 9.7 |
| 27 | 10 | 7.2 | a6.8 | 5.9 | 5.3 | 6.4 | 6.9 | 6.9 | | | 8.0 | 9.7 |
| 28 | 10 | 7.4 | a6.8 | 6.0 | 5.3 | 6.6 | 9.3 | 7.3 | | | 7.6 | 9.8 |
| 29 | 11 | 7.6 | a6.8 | 6.0 | - | 5.9 | 15 | 6.4 | | | 6.9 | 9.6 |
| 30 | 12 | 7.6 | a6.8 | 6.0 | - | 5.8 | 19 | 6.0 | | | 6.6 | 9.6 |
| 31 | 13 | - | a6.8 | 6.0 | - | 5.8 | - | 6.0 | | | 6.6 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 395.6 | 20 | 6.8 | 12.8 | 785 |
| November | 316.1 | 14 | 7.2 | 10.5 | 677 |
| December | 250.8 | 11 | 6.6 | 8.09 | 497 |
| Calendar year 1941 | 3,377.5 | 20 | 2.9 | 9.25 | 6,700 |
| January | 204.4 | 0 | 5.3 | 6.59 | 405 |
| February | 166.4 | 6.7 | 5.2 | 6.01 | 354 |
| March | 178.9 | 8.0 | 5.0 | 5.77 | 366 |
| April | 204.5 | 16 | 5.8 | 6.62 | 406 |
| May | 262.6 | 18 | 6.0 | 8.47 | 521 |
| June | 340.5 | - | 6.0 | 11.4 | 676 |
| July | 252 | - | - | 8.13 | 500 |
| August | 216.2 | 14 | - | 6.97 | 429 |
| September | 259.3 | 11 | 6.6 | 8.64 | 514 |
| Water year 1941-42 | 3,049.3 | 20 | 5.0 | 8.35 | 6,050 |

a No gage-height record; discharge interpolated.

e Stage-discharge relation indefinite; discharge computed on basis of discharge measurements made on June 10, July 16, and August 16, and on basis of recorder records for Malad River near Samaria, and information regarding canal regulation.

n Computed from staff gage reading.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Little Malad River above Elkhorn Reservoir, near Malad, Idaho

Location.- Water-stage recorder, lat. 42°20', long. 112°26', on line between sections 35 and 36, T. 12 S., R. 43 E., three-quarters of a mile upstream from county bridge, 2 miles downstream from Wright Creek, 2½ miles downstream from springs, 2½ miles upstream from Elkhorn Dam, and 14 miles northwest of Malad.

Records available.- October 1931 to September 1932; November 1940 to September 1942.

Extremes.- Maximum discharge during year, 126 second-feet Apr. 4 (gage height, 2.28 feet); minimum daily, 12 second-feet for several periods in November, December, and January.

1931-32, 1940-42: Maximum discharge that of Apr. 4, 1942; minimum daily, 11 second-feet Oct. 1 to Nov. 16, 1931, Mar. 13, 1932, Dec. 13, 15, 16, 1940.

Remarks.- Records good. Small ranch diversions from tributaries above for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 13 | 14 | 14 | 12 | 14 | 13 | 20 | 20 | 20 | 15 | 13 | 14 |
| 2 | 13 | 14 | 16 | 12 | 13 | 13 | 33 | 20 | 20 | 16 | 13 | 13 |
| 3 | 13 | 14 | 16 | 12 | 14 | 13 | 30 | 20 | 19 | 16 | 13 | 13 |
| 4 | 13 | 14 | 14 | 12 | 14 | 14 | 60 | 21 | 20 | 16 | 13 | 14 |
| 5 | 13 | 14 | 13 | 12 | 14 | 14 | 32 | 23 | 20 | 16 | 13 | 14 |
| 6 | 14 | 14 | 12 | 12 | 14 | 14 | 26 | 22 | 20 | 16 | 13 | 14 |
| 7 | 14 | 14 | 13 | 13 | 15 | 13 | 23 | 21 | 20 | 16 | 13 | 14 |
| 8 | 14 | 13 | 12 | 13 | 15 | 13 | 22 | 20 | 20 | 16 | 13 | 14 |
| 9 | 14 | 13 | 12 | 13 | 15 | 14 | 23 | 20 | 20 | 16 | 13 | 13 |
| 10 | 14 | 13 | 13 | 13 | 13 | 13 | 24 | 21 | 20 | 16 | 13 | 14 |
| 11 | 14 | 13 | 14 | 13 | 15 | 14 | 25 | 22 | 19 | 14 | 13 | 14 |
| 12 | 14 | 13 | 14 | 13 | 15 | 14 | 25 | 23 | 18 | 14 | 14 | 16 |
| 13 | 14 | 13 | 14 | 14 | 14 | 15 | 24 | 22 | 16 | 14 | 13 | 14 |
| 14 | 14 | 14 | 14 | 14 | 14 | 15 | 24 | 22 | 18 | 14 | 14 | 14 |
| 15 | 14 | 14 | 14 | 13 | 14 | 14 | 23 | 21 | 19 | 15 | 14 | 14 |
| 16 | 14 | 14 | 15 | 14 | 14 | 14 | 23 | 22 | 19 | 15 | 13 | 14 |
| 17 | 14 | 14 | 15 | 14 | 14 | 14 | 23 | 21 | 18 | 15 | 13 | 14 |
| 18 | 14 | 14 | 15 | 14 | 13 | 14 | 22 | 21 | 18 | 15 | 14 | 14 |
| 19 | 14 | 13 | 14 | 13 | 13 | 14 | 22 | 20 | 17 | 15 | 13 | 14 |
| 20 | 13 | 12 | 14 | 12 | 13 | 13 | 21 | 20 | 17 | 15 | 14 | 14 |
| 21 | 13 | 12 | 14 | 13 | 13 | 14 | 22 | 20 | 16 | 15 | 14 | 14 |
| 22 | 14 | 13 | 14 | 12 | 13 | 15 | 22 | 20 | 16 | 15 | 14 | 14 |
| 23 | 13 | 12 | 14 | 12 | 13 | 15 | 22 | 21 | 15 | 14 | 13 | 14 |
| 24 | 13 | 12 | 14 | 12 | 13 | 15 | 22 | 22 | 16 | 14 | 13 | 14 |
| 25 | 13 | 12 | 14 | 12 | 13 | 14 | 21 | 22 | 16 | 14 | 14 | 14 |
| 26 | 13 | 12 | 12 | 12 | 13 | 14 | 21 | 21 | 17 | 14 | 14 | 14 |
| 27 | 13 | 12 | 12 | 12 | 13 | 15 | 20 | 21 | 17 | 14 | 14 | 14 |
| 28 | 14 | 12 | 12 | 14 | 13 | 17 | 21 | 21 | 17 | 14 | 14 | 14 |
| 29 | 13 | 13 | 13 | 13 | - | 18 | 20 | 21 | 16 | 14 | 14 | 14 |
| 30 | 13 | 13 | 13 | 13 | - | 19 | 19 | 21 | 16 | 14 | 14 | 14 |
| 31 | 13 | - | 13 | 13 | - | 24 | - | 20 | - | 14 | 14 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 419 | 14 | 13 | 13.5 | 851 |
| November..... | 394 | 14 | 12 | 13.1 | 781 |
| December..... | 422 | 16 | 12 | 13.6 | 837 |
| Calendar year 1941..... | 5,771 | 46 | 12 | 16.8 | 11,440 |
| January..... | 396 | 14 | 12 | 12.8 | 785 |
| February..... | 384 | 15 | 13 | 13.7 | 762 |
| March..... | 457 | 24 | 13 | 14.7 | 906 |
| April..... | 750 | 60 | 19 | 26.0 | 1,490 |
| May..... | 652 | 23 | 20 | 21.0 | 1,290 |
| June..... | 542 | 20 | 15 | 16.1 | 1,080 |
| July..... | 459 | 16 | 14 | 14.8 | 910 |
| August..... | 417 | 14 | 13 | 13.5 | 827 |
| September..... | 419 | 16 | 13 | 14.0 | 851 |
| Water year 1941-42..... | 5,711 | 60 | 12 | 16.6 | 11,350 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Elkhorn Reservoir near Malad, Idaho

Location.- Staff gage, lat. 42°18', long. 112°25', in sec. 7, T. 13 S., R. 35 E., 50 feet upstream from left end of partly completed dam on Little Malad River, 4½ miles downstream from Wright Creek, and 1½ miles northwest of Malad.

Records available.- December 1940 to September 1942.

Extremes.- Maximum gage height observed during the year, 10.85 feet Apr. 6; minimum observed, -0.58 feet Aug. 16.
1940-42: Maximum gage height observed, 11.00 feet Apr. 2, 1941; minimum observed, -1.54 feet May 10, 1941.

Remarks.- Reservoir is formed by partly completed concrete multiple-arch dam. Capacity, about 7,600 acre-feet. Gage read once daily. Regulation has been limited to a very small range due to large losses in impounded water.

Gage height, in feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|-------|------|------|------|------|-------|
| 1 | 2.14 | 2.60 | 2.48 | 7.12 | 6.54 | 6.46 | 8.02 | 6.50 | 5.48 | 0.88 | 1.32 | 0.80 |
| 2 | 2.46 | 2.52 | 2.52 | 7.12 | 6.50 | 6.44 | 8.47 | 6.46 | 5.24 | 1.24 | 1.46 | .70 |
| 3 | 2.50 | 2.18 | 2.76 | 7.12 | 6.52 | 6.45 | 8.98 | 6.43 | 5.12 | 1.88 | 1.36 | 1.06 |
| 4 | 2.66 | 2.48 | 2.48 | 7.00 | 6.54 | 6.48 | 9.92 | 6.51 | 4.86 | 1.60 | 1.16 | .96 |
| 5 | 2.94 | 2.54 | 2.12 | 7.04 | 6.58 | 6.48 | 10.79 | 6.60 | 4.54 | 1.52 | 1.64 | 1.32 |
| 6 | 2.82 | 2.14 | 2.18 | 7.04 | 6.60 | 6.48 | 10.85 | 6.83 | 2.76 | 1.70 | 1.66 | .98 |
| 7 | 2.52 | 2.23 | 2.38 | 7.02 | 6.62 | 6.48 | 10.80 | 6.60 | 3.26 | 1.90 | 1.44 | 1.34 |
| 8 | 2.86 | 2.18 | 2.38 | 7.04 | 6.64 | 6.47 | 10.66 | 6.36 | 3.14 | 1.98 | 1.54 | 1.44 |
| 9 | 3.28 | 2.19 | 2.42 | 7.04 | 6.68 | 6.49 | 10.60 | 6.28 | 1.66 | 1.70 | 1.66 | .00 |
| 10 | 1.86 | 2.14 | 2.48 | 7.02 | 6.48 | 6.54 | 10.50 | 6.20 | 1.99 | 1.80 | 1.66 | .30 |
| 11 | 2.26 | 2.18 | 5.34 | 7.00 | 6.49 | 6.66 | 10.38 | 6.28 | 2.34 | 1.60 | 1.84 | .36 |
| 12 | 3.26 | 2.14 | 5.83 | 6.98 | 6.49 | 6.74 | 10.28 | 6.61 | 2.41 | 1.64 | 2.32 | 2.20 |
| 13 | 3.74 | 2.12 | 6.10 | 6.94 | 6.50 | 6.80 | 10.12 | 6.74 | 2.44 | 1.60 | 1.98 | .50 |
| 14 | 3.88 | 2.30 | 6.28 | 6.88 | 6.48 | 6.88 | 9.96 | 6.78 | 2.40 | 1.62 | .04 | .76 |
| 15 | 1.86 | 2.22 | 6.34 | 6.80 | 6.46 | 6.82 | 9.76 | 6.74 | 2.64 | 1.88 | -.08 | 1.02 |
| 16 | 3.16 | 2.50 | 6.58 | 6.80 | 6.46 | 6.84 | 9.54 | 6.78 | 2.94 | 1.64 | (e) | 1.92 |
| 17 | 3.30 | 2.82 | 6.74 | 6.78 | 6.38 | 6.84 | 9.30 | 6.70 | 2.70 | .48 | (e) | 1.10 |
| 18 | 3.06 | 2.36 | 6.37 | 6.76 | 6.34 | 6.76 | 9.14 | 6.64 | 2.62 | .06 | (e) | .93 |
| 19 | 3.32 | 2.26 | 6.96 | 6.72 | 6.34 | 6.68 | 8.79 | 6.52 | 3.22 | .06 | (e) | 1.21 |
| 20 | 3.10 | 2.00 | 7.10 | 6.66 | 6.36 | 6.62 | 8.48 | 6.44 | 3.16 | .16 | .30 | 1.30 |
| 21 | 2.86 | 1.88 | 7.14 | 6.64 | 6.44 | 6.56 | 8.16 | 6.40 | 3.22 | .18 | .38 | 1.18 |
| 22 | 3.32 | 1.96 | 7.20 | 6.58 | 6.50 | 6.56 | 7.92 | 6.00 | 3.12 | .18 | .36 | 1.18 |
| 23 | 3.16 | 2.86 | 7.24 | 6.54 | 6.52 | 6.66 | 7.80 | 5.98 | 1.26 | 1.08 | .78 | .96 |
| 24 | 2.84 | 1.84 | 7.30 | 6.50 | 6.50 | 6.79 | 7.68 | (e) | .96 | 1.06 | .72 | 1.10 |
| 25 | 2.74 | 1.86 | 7.26 | 6.50 | 6.50 | 6.74 | 7.66 | 5.96 | 1.12 | 1.10 | 1.06 | 1.16 |
| 26 | 2.71 | 2.26 | 7.23 | 6.52 | 6.51 | 6.70 | 7.40 | 5.88 | 2.40 | 1.14 | 1.62 | 1.26 |
| 27 | 2.60 | 2.30 | 7.20 | 6.56 | 6.49 | 6.74 | 7.26 | 5.88 | 1.88 | 1.04 | .60 | 1.50 |
| 28 | 2.58 | 2.24 | 7.16 | 6.60 | 6.48 | 6.77 | 7.18 | 5.84 | 1.94 | 1.02 | .18 | 1.28 |
| 29 | 2.30 | 2.18 | 7.17 | 6.68 | - | 6.90 | 7.02 | 5.84 | 1.98 | 1.00 | .48 | 1.08 |
| 30 | 2.40 | 2.66 | 7.16 | 6.62 | - | 7.14 | 6.76 | 6.76 | 1.62 | 1.22 | 1.70 | 1.20 |
| 31 | 2.48 | - | 7.14 | 6.57 | - | 7.56 | - | 5.70 | - | 1.26 | .50 | - |

e Gage-height doubtful.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Little Malad River below Elkhorn Reservoir, near Malad, Idaho

Location.- Water-stage recorder, lat. 42°18', long. 112°25', in sec. 7, T. 13 S., R. 35 E., just downstream from Elkhorn Dam, 4½ miles downstream from Wright Creek, and 1½ miles northwest of Malad.

Records available.- December 1940 to September 1942.

Extremes (regulated).- Maximum discharge during year, 44 second-feet June 8 (gage height, 1.90 feet), from rating curve extended above 22 second-feet by logarithmic plotting; no flow June 22.

1940-42: Maximum discharge, that of June 8, 1942; no flow Mar. 18-24, 1941, June 22, 1942.

Remarks.- Records fair. Flow partially regulated by Elkhorn Reservoir (see preceding page). Small ranch diversions from tributaries above for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 13 | 12 | 12 | a5.3 | 5.3 | 5.0 | 5.8 | 15 | 22 | 18 | 13 | 12 |
| 2 | 13 | 13 | 13 | a5.4 | 5.3 | 5.0 | 6.1 | 15 | 22 | 16 | 13 | 12 |
| 3 | 13 | 12 | 15 | a5.5 | 5.3 | 5.0 | 6.1 | 15 | 21 | 17 | 13 | 12 |
| 4 | 13 | 13 | 14 | 5.6 | 5.3 | 4.8 | 6.1 | 15 | 21 | 17 | 13 | 12 |
| 5 | 14 | 12 | 13 | 5.6 | 5.3 | 4.8 | 6.4 | 15 | 24 | 16 | 13 | 11 |
| 6 | 14 | 12 | 11 | 5.6 | 5.3 | 4.8 | 6.7 | 16 | 21 | 16 | 13 | 12 |
| 7 | 14 | 12 | 12 | 5.6 | 5.3 | 4.8 | 6.7 | 19 | 21 | 16 | 13 | 12 |
| 8 | 13 | 12 | 11 | 5.6 | 5.6 | 4.8 | 6.7 | 19 | 22 | 16 | 13 | 12 |
| 9 | 13 | 12 | 11 | 5.3 | 5.6 | 4.8 | 6.4 | 19 | 19 | 16 | 13 | 12 |
| 10 | 14 | 12 | 8.1 | 5.3 | 5.6 | 4.8 | 6.4 | 19 | 20 | 15 | 12 | 12 |
| 11 | 13 | 12 | 5.3 | 5.3 | 5.6 | 5.0 | 6.4 | 19 | 19 | 15 | 12 | 13 |
| 12 | 13 | 12 | 5.3 | 5.0 | 5.6 | 5.3 | 6.7 | 19 | 17 | 14 | 12 | 14 |
| 13 | 13 | 12 | 5.3 | 5.6 | 5.6 | 5.3 | 6.7 | 19 | 17 | 14 | 14 | 13 |
| 14 | 14 | 12 | 5.3 | 6.1 | 5.6 | 5.3 | 7.2 | 19 | 18 | 14 | 12 | 13 |
| 15 | 14 | 12 | 5.3 | 7.0 | 5.3 | 5.3 | 8.7 | 19 | 20 | 15 | 12 | 13 |
| 16 | 13 | 13 | 5.3 | 7.2 | 5.3 | 5.3 | 8.7 | 19 | 20 | 15 | 12 | 13 |
| 17 | 13 | 14 | 5.3 | 6.7 | 5.3 | 5.3 | 8.7 | 19 | 18 | 16 | 12 | 13 |
| 18 | 13 | 13 | 5.3 | 5.6 | 5.3 | 5.6 | 11 | 18 | 17 | 16 | 12 | 13 |
| 19 | 13 | 13 | 5.3 | 5.6 | 5.6 | 5.3 | 15 | 18 | 18 | 15 | 12 | 13 |
| 20 | 13 | 14 | 5.3 | 5.6 | a5.6 | 5.3 | 15 | 18 | 18 | 15 | 12 | 13 |
| 21 | 12 | 11 | 5.3 | 5.3 | 5.6 | 5.3 | 14 | 20 | 18 | 14 | 12 | 13 |
| 22 | 13 | 12 | 5.3 | 5.3 | 5.6 | 5.6 | 14 | 22 | 17 | 15 | 12 | 13 |
| 23 | 13 | 11 | 5.3 | 5.3 | 5.3 | 5.6 | a13 | 22 | 16 | 14 | 12 | 13 |
| 24 | 12 | 12 | 5.3 | 5.3 | 5.3 | 5.8 | 13 | 22 | 16 | 14 | 12 | 13 |
| 25 | 12 | 12 | 5.3 | 5.3 | 5.3 | 5.8 | 12 | 22 | 16 | 14 | 12 | 13 |
| 26 | 12 | 12 | 5.3 | 5.0 | 5.3 | 5.8 | 12 | 23 | 19 | 14 | 12 | 13 |
| 27 | 12 | 12 | 5.3 | 5.0 | 5.0 | 5.8 | 12 | 23 | 19 | 14 | 12 | 13 |
| 28 | 12 | 12 | 5.3 | 5.0 | - | 5.8 | 13 | 22 | 18 | 14 | 13 | 12 |
| 29 | 12 | 12 | 5.3 | 5.0 | - | 5.8 | 16 | 22 | 16 | 14 | 13 | 12 |
| 30 | 12 | 12 | 5.3 | 5.0 | - | 5.8 | 15 | 22 | 16 | 14 | 13 | 12 |
| 31 | 12 | - | 5.3 | 5.3 | - | 5.8 | - | 22 | - | 14 | 13 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------------|------------------|---------|---------|------|---------------------|
| October..... | 400 | 14 | 12 | 12.9 | 793 |
| November..... | 364 | 14 | 11 | 12.1 | 782 |
| December..... | 231.4 | 15 | 5.3 | 7.46 | 459 |
| Calendar year | - | - | - | - | - |
| January..... | 171.3 | 7.2 | 5.0 | 5.53 | 340 |
| February..... | 151.1 | 5.6 | 5.0 | 5.40 | 300 |
| March..... | 164.5 | 5.8 | 4.8 | 5.31 | 328 |
| April..... | 291.5 | 16 | 5.8 | 9.72 | 578 |
| May..... | 598 | 23 | 15 | 19.2 | 1,180 |
| June..... | 566 | 24 | 16 | 18.9 | 1,120 |
| July..... | 464 | 17 | 14 | 15.0 | 920 |
| August..... | 397 | 14 | 12 | 12.5 | 768 |
| September..... | 377 | 14 | 11 | 12.6 | 748 |
| Water year 1941-42 | 4,163.8 | 24 | 4.8 | 11.4 | 8,250 |

a No gage-height record; discharge interpolated.

Time basis; Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.

To convert war time to standard time, subtract 1 hour.

Devil Creek above Campbell Creek, near Malad, Idaho

Location.- Staff gage, lat. 42°18', long. 112°12', in sec. 12, T. 13 S., R. 36 E., 0.6 mile upstream from proposed dam, 1.3 miles upstream from highway crossing of Campbell Creek, 4.5 miles upstream from Evans Dividers, and 7½ miles northeast of Malad.

Records available.- November 1938 to September 1942.

Extremes.- Maximum discharge observed during year, 65 second-feet Apr. 7, 8 (gage height, 1.28 feet), from rating curve extended above 20 second-feet; minimum observed, 5.8 second-feet many days from July 16 to Sept. 11 (gage height, 0.56 foot).

1938-42: Maximum discharge observed, about 90 second-feet Mar. 27, 1940 (gage height, about 1.65 feet, from floodmark), from rating curve extended above 35 second-feet; minimum observed, 4.1 second-feet July 5, 1939, Aug. 16-19, 1940 (gage height, 0.54 foot).

Remarks.- Records fair. Gage read once daily. Small diversions above station for irrigation. Stream receives part of flow of Birch Creek near station. Malad power plant and its small reservoir on Birch Creek may cause slight diurnal fluctuations.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 7.0 | 7.0 | 7.9 | | | 8.9 | 13 | 14 | 17 | 9.5 | 5.8 | 5.8 |
| 2 | 7.0 | 7.0 | 7.9 | | | 8.4 | 19 | 13 | 17 | 9.5 | 5.8 | 5.8 |
| 3 | 7.0 | 7.0 | 8.8 | b7.6 | | 8.4 | 25 | 13 | 16 | 9.5 | 5.8 | 5.8 |
| 4 | 7.0 | 7.3 | 8.8 | | b8.4 | 8.4 | 50 | 13 | 16 | 8.4 | 5.8 | 5.8 |
| 5 | 7.0 | 7.6 | | | | 8.4 | 52 | 16 | 18 | 8.4 | 5.8 | 5.8 |
| 6 | 7.0 | 7.6 | | | | 8.4 | 65 | 14 | 17 | 8.4 | 5.8 | 5.8 |
| 7 | 7.0 | 7.0 | b8.0 | 7.6 | *8.4 | 8.4 | 65 | 14 | 17 | 8.4 | 5.8 | 5.8 |
| 8 | 7.0 | 7.0 | | 7.6 | | 8.4 | 54 | 12 | 17 | 7.2 | 5.8 | 5.8 |
| 9 | 6.7 | 7.0 | | 7.6 | | 8.9 | 50 | 13 | 17 | 7.2 | 5.8 | 5.8 |
| 10 | 6.7 | 6.4 | *8.2 | 7.6 | | 8.9 | 38 | 14 | 17 | 7.2 | 5.8 | 5.8 |
| 11 | 6.4 | *6.4 | 7.6 | 7.6 | | 9.5 | 35 | 16 | 16 | 7.2 | 5.8 | 5.8 |
| 12 | 6.4 | 6.4 | 7.6 | 7.6 | | 9.5 | 29 | 16 | 12 | 7.2 | 5.8 | 6.5 |
| 13 | 7.0 | 6.4 | 7.6 | 7.6 | | 9.5 | 23 | 17 | 12 | 7.8 | 5.8 | 6.5 |
| 14 | 7.0 | 6.4 | 7.6 | 7.6 | | 9.5 | 20 | 17 | 18 | 8.4 | 5.8 | 6.2 |
| 15 | 7.0 | 6.4 | 8.2 | 7.6 | | 8.4 | 16 | 17 | 17 | 6.5 | 5.8 | 6.2 |
| 16 | 7.0 | 6.4 | 8.2 | 7.6 | | 8.4 | 14 | 17 | 12 | 5.8 | 6.2 | 6.5 |
| 17 | 7.0 | 6.4 | 8.2 | 7.6 | b7.6 | 8.4 | 14 | 16 | 12 | 5.8 | 6.2 | 6.3 |
| 18 | 6.7 | | 7.9 | 7.6 | | 8.4 | 14 | 16 | 12 | 5.8 | 5.8 | 6.3 |
| 19 | 6.7 | | 7.9 | 7.6 | | 8.4 | 14 | 16 | 12 | 5.8 | 5.8 | 6.3 |
| 20 | 7.0 | | 7.9 | 7.6 | | 8.4 | 14 | 16 | 12 | 5.8 | 5.8 | 6.5 |
| 21 | 7.0 | b7.0 | 7.6 | 7.6 | | *8.9 | 14 | 16 | 12 | 5.8 | 5.8 | 6.5 |
| 22 | 7.0 | | 7.6 | 7.6 | | 8.9 | 14 | 17 | 12 | 6.5 | 5.8 | 6.3 |
| 23 | 7.0 | | 7.6 | 7.6 | | 8.9 | 13 | 17 | 11 | 6.5 | 5.8 | 6.3 |
| 24 | 7.0 | 7.3 | 7.6 | 7.6 | | 8.9 | 15 | 17 | 11 | 5.8 | 5.8 | 6.3 |
| 25 | 7.0 | 7.3 | 7.6 | 7.6 | | 8.9 | 12 | 17 | 9.5 | 5.8 | 6.5 | 6.3 |
| 26 | 7.0 | 7.3 | | 7.6 | | 8.9 | 12 | 17 | 12 | 6.5 | 6.2 | 6.3 |
| 27 | 7.0 | 7.6 | b7.0 | 8.5 | | 8.9 | 13 | 17 | 12 | 6.5 | 5.8 | 6.3 |
| 28 | 7.0 | 7.6 | | 8.2 | | 8.9 | 13 | 17 | 12 | 6.5 | 5.8 | 6.3 |
| 29 | 7.0 | 7.6 | 7.9 | 8.2 | - | 8.9 | 13 | 17 | 11 | 6.5 | 5.8 | 6.3 |
| 30 | 7.0 | 7.6 | 7.6 | 7.9 | - | 9.5 | 13 | 17 | 11 | 6.5 | 5.8 | 6.3 |
| 31 | 7.0 | - | 7.6 | 7.9 | - | 11 | - | 17 | - | 6.5 | 5.8 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 214.6 | 7.0 | 6.4 | 6.92 | 426 |
| November..... | 210.0 | 7.6 | 6.4 | 7.00 | 417 |
| December..... | 242.4 | - | - | 7.82 | 481 |
| Calendar year 1941..... | 3,270.4 | 42 | 5.4 | 8.96 | 6,490 |
| January..... | 238.3 | 8.5 | - | 7.69 | 473 |
| February..... | 218.4 | - | - | 7.80 | 433 |
| March..... | 274.5 | 11.0 | 8.4 | 8.85 | 544 |
| April..... | 756 | 65 | 12 | 25.2 | 1,500 |
| May..... | 486 | 17 | 12 | 15.7 | 964 |
| June..... | 409.5 | 17 | 9.5 | 13.6 | 812 |
| July..... | 219.2 | 9.5 | 5.8 | 7.07 | 435 |
| August..... | 181.7 | 6.5 | 5.8 | 5.86 | 360 |
| September..... | 184.3 | 6.5 | 5.8 | 6.14 | 366 |
| Water year 1941-42..... | 3,634.9 | 65 | 5.8 | 9.96 | 7,210 |

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Stage-discharge relation not defined; discharge computed on basis of measurements made Sept. 17 and Nov. 5 and gage heights (gage heights Sept. 17-19 doubtful).

Time basis Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Devil Creek above Evans dividers, near Malad, Idaho

Location.- Water-stage recorder, lat. 42°15', long. 112°13', in sec. 35, T. 13 S., R. E., at Evans Ranch, 900 feet upstream from Evans dividers, 3.1 miles downstream from Campbell Creek, and 3.6 miles northeast of Malad. Prior to June 11, 1942, water-stage recorder at site 400 feet downstream, at different datum.

Records available.- December 1940 to September 1942.

Extremes.- Maximum discharge during year, 78 second-feet Apr. 8 (gage height, 1.65 feet, site and datum then in use), from rating curve extended above 35 second-feet; maximum gage height, not determined; minimum discharge, 3.5 second-feet Oct. 2; minimum gage height, 0.35 foot Mar. 15, site and datum then in use.

1940-42: Maximum discharge, 100 second-feet Aug. 17, 1941 (gage height, 2.15 feet, site and datum then in use), from rating curve extended above 35 second-feet; minimum recorded, 2.5 second-feet Sept. 21, 1941 (gage height, 0.44 foot, site and datum then in use).

Remarks.- Records good except those for June 25 to July 14, which are fair, and those for Nov. 17 to Feb. 28, which are poor. Several diversions above station for irrigation. Stream receives part of flow of Birch Creek above station. Malad power plant and its small reservoir on Birch Creek may cause diurnal fluctuations.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|-------|------|------|------|------|-----|------|------|------|-------|
| 1 | 6.6 | 8.6 | 7.8 | | 8.2 | 8.2 | 15 | 16 | 25 | 8.4 | 4.9 | 6.0 |
| 2 | 6.0 | 10 | 8.2 | | 8.2 | 8.2 | 18 | 16 | 24 | 11 | 4.6 | 7.1 |
| 3 | 5.4 | 8.2 | 8.9 | | 8.6 | 8.2 | 28 | 15 | 24 | 12 | 4.9 | 7.1 |
| 4 | 6.9 | 10 | 8.2 | | 8.6 | 8.2 | 54 | 17 | 24 | 11 | 4.8 | 7.1 |
| 5 | 7.2 | 11 | 8.2 | | *7.8 | 8.9 | 60 | 25 | 22 | 11 | 4.8 | 6.7 |
| 6 | 7.2 | 10 | as.2 | | 7.8 | 8.6 | 54 | 51 | 21 | 11 | 7.2 | 6.9 |
| 7 | 7.2 | 10 | as.2 | | 6.9 | 8.6 | 56 | 25 | 20 | 10 | 7.5 | 6.9 |
| 8 | 7.2 | 9.6 | | | 8.0 | 8.2 | 52 | 24 | 18 | 9.2 | 7.4 | 6.9 |
| 9 | 6.6 | 9.6 | | | 6.3 | 7.5 | 50 | 25 | 18 | 9.2 | 7.4 | 6.9 |
| 10 | 6.6 | 9.6 | ab7.8 | | 7.2 | 8.2 | 48 | 24 | 16 | 10 | 7.4 | 7.1 |
| 11 | 6.6 | *7.8 | | b7.5 | b7.2 | 8.6 | 45 | 28 | 16 | 10 | 7.4 | 7.5 |
| 12 | 6.9 | 7.8 | 7.8 | | 8.6 | 8.9 | 37 | 30 | 17 | 8.4 | 8.0 | 7.4 |
| 13 | 7.8 | 7.8 | 7.8 | | 6.9 | 9.6 | 32 | 30 | 16 | 8.6 | 5.0 | 5.0 |
| 14 | 6.9 | 7.8 | 7.8 | | *7.8 | 8.9 | 32 | 26 | 17 | 7.4 | 5.0 | 4.6 |
| 15 | 6.9 | 8.2 | 8.2 | | | 8.6 | 27 | 25 | 18 | 6.7 | 4.5 | 6.4 |
| 16 | 7.2 | | 8.2 | | | 8.9 | 25 | 37 | 20 | 6.7 | 4.9 | 7.1 |
| 17 | 6.9 | 9.6 | 8.2 | | | 8.9 | 21 | 32 | 18 | 7.1 | 4.3 | 7.1 |
| 18 | 6.6 | | 8.2 | | | 9.6 | 22 | 28 | 15 | 7.1 | 5.0 | 7.2 |
| 19 | 6.9 | | 7.8 | | | 9.2 | 20 | 27 | 17 | 7.7 | 6.9 | 7.4 |
| 20 | 7.2 | | 7.8 | | | 9.2 | 22 | 25 | 17 | 9.4 | 6.9 | 7.1 |
| 21 | 7.2 | | 7.8 | | b8.0 | | 24 | 27 | 16 | 9.4 | 6.7 | 7.1 |
| 22 | 7.5 | | 7.8 | | | *9.6 | 10 | 26 | 15 | 9.4 | 6.5 | 7.1 |
| 23 | 7.2 | b7.8 | 7.8 | a7.5 | | 10 | 25 | 32 | 13 | 9.2 | 6.6 | 5.4 |
| 24 | 7.2 | | 7.8 | a7.5 | | 10 | 23 | 29 | 12 | 9.2 | 6.6 | 4.0 |
| 25 | 7.5 | | 7.8 | h7.5 | | 9.6 | a17 | 27 | 12 | 8.9 | 8.2 | 3.7 |
| 26 | 7.8 | | | a7.5 | | 9.6 | a17 | 27 | 13 | 8.9 | 7.9 | 3.6 |
| 27 | 7.8 | | b7.8 | h8.2 | | 9.5 | 18 | 28 | 11 | 7.7 | 7.1 | 3.7 |
| 28 | 8.6 | | | h8.2 | | 10 | 20 | 27 | 10 | 6.0 | 4.9 | 4.2 |
| 29 | 8.2 | 7.8 | | 8.2 | - | 10 | 19 | 23 | 9.4 | 5.8 | 4.0 | 7.2 |
| 30 | 8.2 | 7.8 | | 7.8 | - | 11 | 15 | 23 | 9.2 | 5.6 | 4.2 | 7.1 |
| 31 | 8.2 | - | | 8.2 | - | 12 | - | 25 | - | 5.2 | 3.8 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------------|------------------|---------|---------|------|---------------------|
| October..... | 222.2 | 8.6 | 5.4 | 7.17 | 441 |
| November..... | 254.8 | 11 | 7.8 | 8.49 | 506 |
| December..... | 245.5 | 8.9 | 7.8 | 7.95 | 469 |
| Calendar year 1941 | 3,905.9 | 59 | 3.8 | 10.7 | 7,750 |
| January..... | 235.5 | 8.2 | - | 7.90 | 487 |
| February..... | 218.1 | - | 6.0 | 7.72 | 459 |
| March..... | 284.6 | 12 | 7.5 | 9.18 | 564 |
| April..... | 919 | 60 | 15 | 30.6 | 1,820 |
| May..... | 802 | 37 | 15 | 25.9 | 1,590 |
| June..... | 504.6 | 25 | 9.2 | 16.8 | 1,000 |
| July..... | 267.2 | 12 | 5.2 | 8.62 | 550 |
| August..... | 186.4 | 8.2 | 3.8 | 5.92 | 368 |
| September..... | 188.6 | 7.5 | 3.6 | 6.29 | 374 |
| Water year 1941-42 | 4,328.6 | 60 | 3.5 | 11.9 | 8,560 |

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records, recorded range in stage, and records for station above Campbell Creek.
b Stage-discharge relation affected by ice.
c Computed from staff gage readings.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.
To convert war time to standard time, subtract 1 hour.

BEAR RIVER BASIN

Deep Creek below First Creek, near Malad, Idaho

Location.— Water-stage recorder and wooden control, lat. 42°14', long. 112°11', in sec. 7, T₁S., R. 37 E., just downstream from site of proposed reservoir, 1 mile north and 3½ miles east of Malad, and 12 miles upstream from mouth.

Records available.— October 1931 to September 1942.

Average discharge.— 11 years, 8.70 second-feet.

Extremes.— Maximum discharge during year, 62 second-feet May 16 (gage height, 1.84 feet); minimum, 1.8 second-feet Sept. 9; minimum gage height, not determined.
1931-42: Maximum discharge observed, 172 second-feet July 8, 1937, from rating curve extended above 40 second-feet by logarithmic plotting; minimum observed, 0.3 second-foot Aug. 29, 1934.

Remarks.— Records good except those for periods of ice effect or no gage-height record, which are fair. Small diversions above station. Flow regulated at reservoir 2½ miles above station.

Rating tables, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 19 to Mar. 28)

| Oct. 1 to June 26 | | | | June 27 to Sept. 30 | | | |
|-------------------|------|-----|------|---------------------|-----|-----|------|
| 0.25 | 3.3 | 0.8 | 13.7 | 0.3 | 1.5 | 0.7 | 10.2 |
| .3 | 4.0 | 1.0 | 19.3 | .4 | 3.2 | .8 | 13.2 |
| .4 | 5.5 | 1.2 | 26.5 | .5 | 5.3 | 1.0 | 19.3 |
| .6 | 7.2 | 1.4 | 35.5 | .6 | 7.8 | | |
| .6 | 9.0 | 1.6 | 46 | | | | |
| .7 | 11.2 | 1.8 | 59 | | | | |

Note.— Same as preceding table above 1.0 feet.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1 | 5.0 | 4.1 | 4.3 | 5.4 | 4.7 | 4.3 | | 23 | 35 | 15 | 12 | 3.0 |
| 2 | 4.9 | 4.3 | 4.6 | 4.1 | 4.6 | 4.5 | | 22 | 34 | 15 | 12 | 2.9 |
| 3 | 4.7 | 4.0 | 5.2 | 4.2 | 4.4 | 4.6 | | 22 | 33 | 15 | 12 | 2.4 |
| 4 | 4.7 | 4.1 | 4.9 | 2.8 | 4.3 | 4.4 | | 25 | 32 | 15 | 11 | 2.5 |
| 5 | 5.0 | 4.1 | 3.7 | 3.2 | 4.3 | 4.6 | | 26 | 30 | 17 | 11 | 2.4 |
| 6 | 5.0 | 4.3 | 3.4 | 3.3 | 4.3 | 5.0 | a22 | 25 | 27 | 16 | 10 | 2.4 |
| 7 | 4.9 | 4.1 | 3.9 | 3.3 | 4.4 | 4.7 | | 26 | 26 | 17 | 10 | 2.5 |
| 8 | 4.7 | 4.3 | a3.9 | 3.4 | 4.3 | 5.0 | | 26 | 25 | 17 | 10 | 2.5 |
| 9 | 4.6 | 4.1 | 3.9 | 3.7 | 4.1 | 5.5 | | 30 | 24 | 17 | 9.7 | 2.2 |
| 10 | 4.3 | 4.1 | 3.6 | 3.7 | 3.4 | 6.0 | | 31 | 24 | 16 | 9.2 | 2.4 |
| 11 | 4.1 | 4.1 | 3.9 | 3.7 | 3.6 | 6.5 | | 35 | 23 | 16 | 9.2 | 2.7 |
| 12 | 4.0 | 4.1 | a4.1 | 3.7 | 3.6 | 6.8 | 41 | 40 | 22 | 13 | 8.1 | 3.4 |
| 13 | 5.2 | 4.1 | 4.3 | 3.9 | 3.3 | 7.0 | 43 | 40 | 22 | 12 | 6.7 | |
| 14 | 4.4 | 4.0 | 4.4 | 3.6 | b5.3 | 6.5 | 45 | 40 | 21 | 12 | 6.7 | |
| 15 | 4.3 | 4.0 | 4.4 | 3.9 | b5.3 | 6.0 | 46 | 40 | 20 | 15 | 6.2 | a3.4 |
| 16 | 4.1 | 3.9 | 4.6 | 4.0 | b5.3 | 6.5 | 44 | 49 | 18 | 16 | 6.2 | |
| 17 | 4.0 | a3.8 | 4.6 | 4.0 | b5.3 | 6.2 | 45 | 45 | 16 | 16 | 6.0 | 3.4 |
| 18 | 4.0 | a3.7 | 4.4 | 4.1 | b5.3 | 6.3 | 41 | 45 | 18 | 16 | 6.0 | 3.6 |
| 19 | 3.9 | a3.6 | 4.4 | 4.1 | 3.3 | 6.0 | 34 | 44 | 18 | 16 | 5.8 | 3.6 |
| 20 | a3.9 | a3.5 | 4.1 | 4.4 | 3.3 | 5.2 | 35 | 45 | 19 | 16 | 5.1 | 3.4 |
| 21 | a4.0 | a3.4 | 4.3 | 4.4 | 3.3 | a6.0 | 32 | 46 | 18 | 15 | 3.8 | 3.2 |
| 22 | a4.1 | a3.3 | 4.1 | 4.6 | 3.3 | 5.7 | 32 | 47 | 19 | 15 | 3.6 | 3.0 |
| 23 | a4.2 | 3.3 | 4.1 | 4.4 | a3.4 | 6.0 | 32 | a5.1 | 18 | 14 | 3.4 | 2.9 |
| 24 | a4.3 | 3.4 | 3.9 | 4.4 | a3.5 | 6.0 | 31 | a5.5 | 19 | 14 | 3.2 | 2.9 |
| 25 | 4.4 | 3.4 | 3.3 | 4.6 | a3.7 | 5.7 | 28 | 59 | 21 | 14 | 3.8 | 2.9 |
| 26 | 4.4 | 3.6 | a3.1 | 4.3 | a3.8 | 5.7 | 27 | 58 | 22 | 12 | 4.2 | 3.0 |
| 27 | 4.4 | 3.7 | a3.0 | 4.4 | a4.0 | 5.7 | 26 | 66 | 21 | 11 | 3.0 | 3.0 |
| 28 | 4.6 | 3.9 | 2.9 | 4.7 | a4.1 | 6.0 | 25 | 55 | 20 | 10 | 3.2 | 3.0 |
| 29 | 4.4 | 4.0 | 3.0 | 4.4 | - | a6.8 | 25 | 49 | 17 | 10 | 3.4 | 3.0 |
| 30 | 4.3 | 4.1 | 3.4 | a4.5 | - | a7.0 | 24 | 45 | 16 | 11 | 3.6 | 3.2 |
| 31 | 4.1 | - | 3.6 | a4.5 | - | a8.0 | - | 39 | - | 12 | 3.4 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 136.9 | 5.2 | 3.9 | 4.42 | 272 |
| November | 116.4 | 4.3 | 3.3 | 3.88 | 231 |
| December | 123.3 | 5.2 | 2.9 | 3.98 | 245 |
| Calendar year 1941 | 5,612.1 | 45 | - | 9.90 | 7,170 |
| January | 121.4 | 4.7 | 2.5 | 3.92 | 241 |
| February | 105.5 | 4.7 | 3.3 | 2.77 | 209 |
| March | 179.9 | 8.0 | 4.3 | 5.80 | 357 |
| April | 894 | 48 | - | 29.8 | 1,770 |
| May | 1,231 | 59 | 22 | 39.7 | 2,440 |
| June | 677 | 35 | 16 | 22.6 | 1,540 |
| July | 446 | 17 | 10 | 14.4 | 885 |
| August | 211.5 | 12 | 3.0 | 6.82 | 420 |
| September | 89.0 | - | 2.2 | 2.97 | 177 |
| Water year 1941-42 | 4,331.9 | 59 | 2.2 | 11.9 | 8,590 |

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for nearby stations, or interpolated.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Weber River near Oakley, Utah

Location.- Water-stage recorder, lat. 40°44'10", long. 111°14'45", in SE¼ sec. 15, T. 1 S., R. 6 E., 1.4 miles downstream from South Fork, 2.6 miles upstream from Weber-Provo diversion canal, and 3¼ miles northeast of Oakley (revised).

Drainage area.- 163 square miles.

Records available.- October 1904 to September 1942.

Average discharge.- 36 years (1906-42) 232 second-feet.

Extremes.- Maximum discharge during year, 1,720 second-feet June 11 (gage height, 3.67 feet); minimum daily, 50 second-feet Jan. 2-6, Feb. 15-20, during periods of ice effect.

1904-42: Maximum discharge observed, 4,010 second-feet July 6, 1907, June 5-7, 1909; minimum recorded, 16 second-feet Mar. 12, 1941.

Remarks.- Records good except those for periods of ice effect and no gage-height record, which are fair. Several small diversions above station for irrigation. Flow regulated slightly by several small lakes on headwaters and a small reservoir on Smith and Morehouse Creek. Total capacity of all reservoirs, about 3,200 acre-feet.

Rating table, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|-----|-----|-----|-----|-------|
| 1.1 | 52 | 1.8 | 209 | 2.6 | 590 |
| 1.2 | 66 | 2.0 | 278 | 2.9 | 825 |
| 1.4 | 84 | 2.2 | 363 | 3.2 | 1,180 |
| 1.6 | 151 | 2.4 | 466 | 3.7 | 1,760 |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-------|-------|------|------|-------|
| 1 | 60 | 59 | b65 | b55 | b60 | a60 | 74 | 267 | 882 | 290 | 112 | 73 |
| 2 | 63 | 95 | 63 | b50 | b60 | a60 | 80 | 260 | 1,060 | 290 | 105 | 69 |
| 3 | 65 | 69 | 69 | b50 | 60 | a60 | 95 | 242 | 1,220 | 232 | 101 | 69 |
| 4 | a67 | 105 | 71 | b50 | 60 | a60 | 134 | 242 | 1,170 | 267 | 108 | 69 |
| 5 | a67 | 99 | b60 | b50 | 55 | a60 | 136 | 242 | 1,110 | 255 | 110 | 68 |
| 6 | a67 | 95 | b60 | b50 | 59 | a60 | 131 | 239 | 1,280 | 246 | 108 | 68 |
| 7 | a67 | 87 | b60 | b55 | 60 | a60 | 131 | 267 | 1,360 | 246 | 103 | 65 |
| 8 | a67 | 83 | b60 | b55 | 59 | a60 | 151 | 310 | 1,400 | 229 | 99 | 63 |
| 9 | a67 | 85 | b60 | b60 | b60 | a60 | 173 | 363 | 1,370 | 222 | 99 | 69 |
| 10 | 68 | 80 | b65 | b60 | b60 | a60 | 206 | 378 | 1,460 | 209 | 101 | 71 |
| 11 | 68 | 78 | b65 | b55 | b55 | a60 | 239 | 378 | 1,490 | 191 | 108 | 81 |
| 12 | 69 | 78 | 66 | b55 | b55 | a60 | 274 | 363 | 1,230 | 176 | 119 | 89 |
| 13 | 63 | 76 | 65 | b55 | b55 | a60 | 322 | 354 | 1,010 | 162 | 105 | 81 |
| 14 | 85 | 76 | 63 | b55 | b55 | a55 | 368 | 340 | 990 | 157 | 101 | 74 |
| 15 | 80 | 74 | 63 | b55 | b50 | a55 | 373 | 368 | 960 | 157 | 105 | 71 |
| 16 | 76 | 74 | 66 | b55 | a50 | a55 | 365 | 402 | 960 | 176 | 97 | 69 |
| 17 | 74 | 80 | 63 | b60 | a50 | a55 | 378 | 378 | 970 | 162 | 91 | 69 |
| 18 | 73 | 76 | 71 | b60 | a50 | a55 | 345 | 358 | 1,020 | 168 | 89 | 68 |
| 19 | 73 | 80 | a66 | b60 | a50 | a55 | 332 | 354 | 990 | 159 | 93 | 65 |
| 20 | 81 | 73 | 74 | b55 | a50 | a55 | 332 | 350 | 808 | 146 | 91 | 66 |
| 21 | 97 | b70 | 65 | b55 | a55 | a60 | 354 | 397 | 692 | 138 | 85 | 65 |
| 22 | 93 | b65 | b65 | b60 | a55 | a60 | 412 | 507 | 632 | 131 | 85 | 65 |
| 23 | 87 | b62 | b65 | b60 | a60 | a60 | 423 | 646 | 597 | 124 | 81 | 63 |
| 24 | 87 | b62 | b60 | b60 | a60 | a60 | 583 | 563 | 564 | 134 | 80 | 63 |
| 25 | 101 | b62 | b60 | b60 | a55 | a60 | 350 | 960 | 558 | 134 | 91 | 62 |
| 26 | 99 | a665 | b60 | b60 | a55 | a65 | 332 | 1,290 | 507 | 131 | 80 | 60 |
| 27 | 95 | b66 | b60 | b60 | a55 | a65 | 310 | 1,280 | 450 | 124 | 76 | 59 |
| 28 | 97 | b65 | b55 | b60 | a55 | a65 | 318 | 1,030 | 383 | 131 | 74 | 59 |
| 29 | 97 | b65 | b60 | b60 | - | a65 | 298 | 1,020 | 340 | 128 | 74 | 58 |
| 30 | 93 | b65 | b60 | b60 | - | a65 | 278 | 582 | 310 | 112 | 74 | 58 |
| 31 | 81 | - | b60 | b60 | - | a65 | - | 834 | - | 110 | 73 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 2,444 | 101 | 60 | 75.8 | 4,860 |
| November | 2,323 | 105 | 62 | 77.4 | 4,610 |
| December | 1,965 | 74 | 55 | 63.4 | 3,900 |
| Calendar year 1941 | 62,213 | 1,020 | 42 | 170 | 123,400 |
| January | 1,755 | 60 | 50 | 56.6 | 3,480 |
| February | 1,566 | 60 | 50 | 55.9 | 3,110 |
| March | 1,555 | 65 | 55 | 59.8 | 3,680 |
| April | 3,093 | 423 | 74 | 270 | 16,050 |
| May | 16,164 | 1,290 | 239 | 521 | 32,060 |
| June | 27,753 | 1,490 | 310 | 925 | 55,050 |
| July | 5,585 | 290 | 110 | 180 | 11,080 |
| August | 2,916 | 119 | 73 | 94.1 | 5,780 |
| September | 2,032 | 89 | 58 | 67.7 | 4,030 |
| Water year 1941-42 | 74,451 | 1,490 | 50 | 204 | 147,700 |

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated Oct. 5-9, computed on basis of records for station near Oakville and weather records Feb. 16 to Mar. 31.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Weber River near Coalville, Utah

Location.- Water-stage recorder, lat. 40°53'40", long. 111°24'00", in SE $\frac{1}{4}$ sec. 20, T. 2 N., R. 5 E., at bridge $\frac{1}{2}$ miles upstream from high-water contour for Echo Reservoir, $\frac{1}{2}$ miles south of Coalville, and 6 miles downstream from Silver Creek.

Drainage area.- 438 square miles.

Records available.- April 1927 to September 1942.

Average discharge.- 15 years, 202 second-feet.

Extremes.- Maximum discharge during year, 1,380 second-feet May 27 (gage height, 3.82 feet); minimum, 34 second-feet Aug. 22 (gage height, 0.30 foot).

1927-42: Maximum discharge observed, 1,960 second-feet June 17, 1929 (gage height, 4.30 feet); minimum, 6 second-feet Sept. 20, 1934 (gage height, -0.23 foot).

Remarks.- Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation. No diversions between station and Echo Reservoir. Records do not include water diverted from Weber River Basin through Weber-Provo diversion canal. Flow slightly regulated by several small reservoirs above station.

Rating table, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 10)

| | | | |
|-----|-----|-----|-------|
| 0.3 | 34 | 1.7 | 330 |
| .5 | 55 | 2.0 | 394 |
| .7 | 82 | 2.5 | 565 |
| 1.0 | 134 | 3.0 | 860 |
| 1.3 | 199 | 3.7 | 1,370 |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-------|-------|------|------|-------|
| 1 | 63 | 144 | 146 | 150 | 150 | 140 | 418 | 316 | 739 | 106 | 47 | 56 |
| 2 | 85 | 197 | 150 | 110 | 150 | 140 | 476 | 285 | 844 | 100 | 42 | 58 |
| 3 | 90 | 192 | 170 | h90 | 160 | 140 | 475 | 271 | 950 | 95 | 46 | 56 |
| 4 | 87 | 174 | 180 | 90 | 160 | 140 | 665 | 248 | 980 | 87 | 43 | 54 |
| 5 | 119 | 174 | 160 | 80 | 160 | 140 | 630 | 248 | 932 | 81 | 42 | 52 |
| 6 | 140 | 163 | h130 | 90 | 160 | 130 | 422 | 248 | 980 | 75 | 42 | 56 |
| 7 | 142 | 152 | 120 | 110 | h130 | h130 | 378 | 251 | 1,020 | 78 | 41 | 55 |
| 8 | 156 | 148 | 120 | 140 | 140 | 150 | 394 | 293 | 1,090 | 72 | 42 | 49 |
| 9 | 121 | 150 | 120 | 150 | 140 | 160 | 394 | 346 | 1,100 | 74 | 41 | 46 |
| 10 | 113 | 144 | 150 | h160 | 140 | 220 | 422 | 374 | 1,130 | 78 | 39 | 42 |
| 11 | 108 | 142 | 150 | 160 | 140 | 210 | 429 | 378 | 1,190 | 72 | 40 | 48 |
| 12 | 100 | 142 | 150 | 160 | 130 | 200 | 483 | 371 | 1,050 | 63 | 56 | 74 |
| 13 | 119 | 138 | h134 | 130 | 120 | 150 | 524 | 368 | 816 | 62 | 51 | 79 |
| 14 | 121 | 138 | 140 | 120 | h100 | h123 | 595 | 342 | 728 | 58 | 47 | 69 |
| 15 | 110 | 136 | 150 | 110 | 90 | 140 | 620 | 324 | 680 | 59 | 45 | 67 |
| 16 | 106 | 130 | 150 | 130 | 90 | 150 | 577 | 426 | 655 | 100 | 45 | 67 |
| 17 | 105 | 174 | 150 | h140 | 90 | 150 | 572 | 415 | 635 | 106 | 44 | 64 |
| 18 | 103 | 206 | 150 | 130 | 90 | 140 | 537 | 358 | 670 | 121 | 42 | 64 |
| 19 | 103 | 165 | 150 | 110 | 90 | 140 | 495 | 339 | 665 | 105 | 40 | 68 |
| 20 | 106 | 136 | h150 | 100 | 100 | 140 | 467 | 330 | 569 | 95 | 39 | 67 |
| 21 | 138 | 132 | 140 | 110 | h100 | h140 | 422 | 342 | 452 | 85 | 37 | 64 |
| 22 | 145 | 154 | 140 | 120 | 130 | 140 | 463 | 401 | 387 | 75 | 35 | 62 |
| 23 | 128 | 144 | 140 | 130 | 140 | 146 | 495 | 533 | 330 | 71 | 36 | 60 |
| 24 | 132 | 142 | 130 | h140 | 140 | 167 | 437 | 761 | 295 | 65 | 36 | 60 |
| 25 | 142 | 154 | 130 | 140 | 140 | 161 | 387 | 944 | 253 | 60 | 41 | 59 |
| 26 | 158 | 165 | 120 | 140 | 140 | 148 | 339 | 1,060 | 233 | 60 | 45 | 60 |
| 27 | 148 | 140 | h92 | 150 | 140 | 140 | 301 | 1,300 | 228 | 59 | 50 | 58 |
| 28 | 197 | 146 | 110 | 160 | h140 | 154 | 394 | 1,090 | 206 | 58 | 60 | 53 |
| 29 | 185 | 146 | 120 | 160 | - | 185 | 415 | 992 | 174 | 52 | 52 | 48 |
| 30 | 161 | 144 | 130 | 150 | - | 226 | 324 | 884 | 134 | 48 | 54 | 46 |
| 31 | 144 | - | 150 | h138 | - | 293 | - | 766 | - | 42 | 54 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 3,854 | 197 | 63 | 124 | 7,640 |
| November..... | 4,612 | 206 | 130 | 154 | 9,160 |
| December..... | 4,292 | 180 | 92 | 138 | 8,510 |
| Calendar year 1941..... | 66,118 | 1,280 | 44 | 181 | 131,100 |
| January..... | 3,978 | 160 | 80 | 128 | 7,890 |
| February..... | 3,600 | 160 | 90 | 129 | 7,140 |
| March..... | 4,913 | 293 | 123 | 158 | 9,740 |
| April..... | 13,949 | 665 | 501 | 465 | 27,670 |
| May..... | 15,604 | 1,300 | 248 | 503 | 30,950 |
| June..... | 20,108 | 1,190 | 134 | 670 | 39,880 |
| July..... | 2,362 | 121 | 42 | 76.2 | 4,680 |
| August..... | 1,364 | 56 | 35 | 44.0 | 2,710 |
| September..... | 1,759 | 79 | 42 | 58.6 | 3,490 |
| Water year 1941-42..... | 80,395 | 1,300 | 35 | 220 | 159,400 |

h Staff-gage reading on this day.

Note.- Stage-discharge relation affected by ice during part of period Dec. 2 to Mar. 22, no gage-height record except staff-gage readings on days indicated; discharge based on flow into Echo Reservoir as indicated by contents and outflow, staff-gage readings, and weather records.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Echo Reservoir at Echo, Utah

Location.- Staff gage, lat. 40°57'50", long. 111°26'00", in NW¼SW¼ sec. 30, T. 3 N., R. 5 E., near outlet works at left end of Echo Dam, 1 mile southeast of Echo. Datum of gage is at mean sea level (surveys of Bureau of Reclamation).

Drainage area.- 732 square miles.

Records available.- October 1930 to September 1942.

Extremes.- Maximum contents during year, 74,240 acre-feet June 15-22 (elevation, 5,560.2 feet); minimum, 16,090 acre-feet Oct. 5 (elevation, 5,506.7 feet).

1930-42: Maximum contents, 74,460 acre-feet May 31, 1937 (elevation, 5,560.35 feet); no storage Sept. 12 to Dec. 3, 1931 and Sept. 24 to Nov. 2, 1934.

Remarks.- Reservoir is formed by earth-fill, rock-faced dam; storage began in October 1930; dam completed in 1931. Capacity, 73,940 acre-feet between elevation 5,450 feet (bottom of outlet tunnel) and 5,550 feet (top of radial gates in spillway) above mean sea level. Dead storage negligible. Elevation of spillway crest is 5,543 feet. Water is used for irrigation on the Echo project. Records give contents represented by daily gage readings to half-tenths at 6 a.m.

Contents, in acre-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 16,300 | 17,050 | 18,300 | 18,110 | 17,620 | 17,160 | 22,390 | 61,900 | 70,590 | 72,040 | 51,160 | 29,310 |
| 2 | 16,230 | 17,120 | 18,340 | 18,070 | 17,590 | 17,120 | 23,710 | 61,360 | 69,720 | 71,460 | 50,420 | 28,360 |
| 3 | 16,160 | 17,340 | 18,370 | 17,960 | 17,590 | 17,120 | 24,930 | 60,680 | 69,010 | 71,020 | 49,740 | 28,000 |
| 4 | 16,120 | 17,450 | 18,480 | 17,890 | 17,670 | 17,120 | 26,400 | 69,580 | 69,290 | 70,520 | 49,010 | 27,370 |
| 5 | 16,090 | 17,590 | 18,670 | 17,740 | 17,740 | 17,080 | 28,670 | 69,210 | 70,010 | 70,010 | 48,280 | 26,710 |
| 6 | 16,160 | 17,670 | 18,710 | 17,590 | 17,740 | 17,120 | 30,470 | 69,540 | 70,520 | 69,440 | 47,620 | 26,010 |
| 7 | 16,300 | 17,740 | 18,670 | 17,450 | 17,780 | 17,120 | 31,840 | 69,580 | 71,160 | 68,860 | 46,900 | 25,320 |
| 8 | 16,370 | 17,810 | 18,670 | 17,450 | 17,890 | 17,080 | 33,150 | 60,420 | 71,760 | 68,150 | 46,190 | 24,720 |
| 9 | 16,440 | 17,850 | 18,640 | 17,480 | 17,890 | 17,080 | 34,440 | 61,090 | 72,470 | 67,440 | 45,490 | 24,080 |
| 10 | 16,470 | 17,890 | 18,640 | 17,480 | 17,890 | 17,160 | 35,750 | 61,900 | 73,060 | 66,740 | 44,840 | 23,460 |
| 11 | 16,470 | 17,920 | 18,640 | 17,480 | 17,890 | 17,380 | 37,080 | 62,720 | 73,650 | 66,040 | 44,150 | 22,920 |
| 12 | 16,510 | 17,960 | 18,640 | 17,480 | 17,850 | 17,700 | 38,560 | 63,680 | 74,150 | 65,340 | 43,460 | 22,450 |
| 13 | 16,470 | 17,960 | 18,670 | 17,480 | 17,850 | 18,110 | 40,010 | 64,650 | 73,940 | 64,560 | 42,940 | 22,150 |
| 14 | 16,510 | 18,000 | 18,670 | 17,450 | 17,780 | 18,520 | 41,600 | 65,410 | 74,090 | 63,950 | 42,220 | 21,950 |
| 15 | 16,510 | 18,000 | 18,670 | 17,380 | 17,700 | 18,640 | 43,350 | 66,110 | 74,240 | 63,270 | 41,600 | 21,790 |
| 16 | 16,470 | 18,000 | 18,640 | 17,300 | 17,630 | 18,670 | 45,080 | 66,880 | 74,240 | 62,580 | 41,000 | 21,620 |
| 17 | 16,440 | 18,000 | 18,640 | 17,300 | 17,520 | 18,710 | 46,720 | 67,660 | 74,240 | 61,970 | 40,330 | 21,430 |
| 18 | 16,400 | 18,220 | 18,640 | 17,300 | 17,520 | 18,790 | 48,400 | 68,010 | 74,240 | 61,360 | 39,630 | 21,230 |
| 19 | 16,330 | 18,370 | 18,640 | 17,270 | 17,450 | 18,820 | 49,930 | 68,010 | 74,240 | 60,750 | 38,930 | 21,070 |
| 20 | 16,300 | 18,410 | 18,640 | 17,190 | 17,380 | 18,790 | 51,350 | 67,750 | 74,240 | 60,150 | 38,240 | 20,870 |
| 21 | 16,260 | 18,370 | 18,640 | 17,080 | 17,340 | 18,790 | 52,730 | 67,590 | 74,240 | 59,540 | 37,550 | 20,670 |
| 22 | 16,330 | 18,340 | 18,640 | 17,010 | 17,270 | 18,790 | 54,000 | 67,590 | 74,240 | 58,880 | 36,820 | 20,480 |
| 23 | 16,370 | 18,300 | 18,600 | 16,970 | 17,270 | 18,940 | 55,670 | 67,940 | 74,160 | 58,080 | 36,150 | 20,320 |
| 24 | 16,370 | 18,260 | 18,520 | 16,970 | 17,230 | 19,200 | 57,230 | 68,720 | 73,870 | 57,300 | 35,440 | 20,130 |
| 25 | 16,440 | 18,220 | 18,480 | 17,010 | 17,190 | 19,550 | 58,410 | 70,010 | 73,600 | 56,510 | 34,580 | 19,950 |
| 26 | 16,470 | 18,190 | 18,450 | 17,190 | 17,190 | 19,820 | 59,280 | 71,460 | 73,130 | 55,730 | 33,740 | 19,740 |
| 27 | 16,550 | 18,220 | 18,370 | 17,050 | 17,160 | 20,050 | 60,010 | 72,550 | 72,920 | 54,960 | 32,960 | 19,510 |
| 28 | 16,620 | 18,220 | 18,220 | 17,120 | 17,160 | 20,240 | 60,550 | 73,130 | 72,840 | 54,120 | 32,180 | 19,240 |
| 29 | 16,630 | 18,260 | 18,110 | 17,340 | - | 20,560 | 61,220 | 72,840 | 72,620 | 53,360 | 31,460 | 18,980 |
| 30 | 16,940 | 18,260 | 18,110 | 17,410 | - | 20,990 | 61,630 | 72,470 | 72,400 | 52,670 | 30,710 | 18,790 |
| 31 | 17,010 | - | 18,160 | 17,480 | - | 21,560 | - | 71,600 | - | 51,910 | 30,010 | - |

Monthly elevation and contents, water year October 1941 to September 1942

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents during month (acre-feet) |
|-------------------------|------------------|----------------------|---|
| Oct. 1..... | 5,507.0 | 16,300 | +750 |
| Nov. 1..... | 5,508.5 | 17,050 | +1,250 |
| Dec. 1..... | 5,509.75 | 18,300 | -190 |
| Calendar year 1941..... | - | - | +15,180 |
| Jan. 1..... | 5,509.5 | 18,110 | -590 |
| Feb. 1..... | 5,508.7 | 17,520 | -360 |
| Mar. 1..... | 5,508.2 | 17,160 | +5,230 |
| Apr. 1..... | 5,515.0 | 22,390 | +39,510 |
| May 1..... | 5,531.5 | 61,900 | +3,690 |
| June 1..... | 5,557.7 | 70,590 | +1,450 |
| July 1..... | 5,558.7 | 72,040 | -20,880 |
| Aug. 1..... | 5,543.25 | 51,160 | -21,850 |
| Sept. 1..... | 5,523.0 | 29,310 | -10,790 |
| Oct. 1..... | 5,510.05 | 18,520 | - |
| Water year 1941-42..... | - | - | +2,220 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

WEBER RIVER BASIN

Weber River at Echo, Utah

Location.- Water-stage recorder, lat. 40°58'05", long. 111°26'15", in NE¼ sec. 25, T. 3 N., R. 4 E., 900 feet (revised) upstream from Echo Creek, 2,400 feet downstream from Echo Dam, and 3,200 feet southeast of Echo.

Drainage area.- 732 square miles.

Records available.- April 1927 to September 1942.

Average discharge.- 15 years, 257 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,560 second-feet May 27 to June 3, maximum gage height, 5.15 feet May 27; minimum, 3 second-feet Apr. 1-9.
1927-42: Maximum discharge, 2,330 second-feet May 30 and 31, 1937 (gage height, 5.83 feet); minimum, practically no flow when reservoir gates are closed.

Remarks.- Records excellent. Many diversions for irrigation above and below station. One small diversion between gage and Echo Dam. Flow regulated by Echo Reservoir. (See preceding page.)

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-------|-------|------|------|-------|
| 1 | 145 | 165 | 174 | 177 | 163 | 167 | e14 | 654 | 1,560 | 407 | 407 | 392 |
| 2 | 145 | 165 | 174 | 177 | 163 | 167 | e3 | 761 | 1,560 | 396 | 404 | 385 |
| 3 | 137 | 165 | 174 | 177 | 163 | 167 | e3 | 824 | 1,350 | 396 | 404 | 385 |
| 4 | 133 | 165 | 174 | 177 | 163 | 167 | e3 | 834 | 1,000 | 396 | 407 | 392 |
| 5 | 131 | 167 | 177 | 177 | 163 | 167 | e3 | 387 | 934 | 430 | 411 | 404 |
| 6 | 131 | 167 | 177 | 177 | 165 | 167 | e3 | 201 | 939 | 438 | 411 | 411 |
| 7 | 131 | 167 | 177 | 177 | 165 | 167 | e3 | 204 | 992 | 458 | 407 | 396 |
| 8 | 131 | 167 | 177 | 177 | 165 | 167 | e3 | 204 | 1,020 | 478 | 404 | 378 |
| 9 | 131 | 167 | 177 | 177 | 165 | 167 | e13 | 204 | 1,020 | 482 | 407 | 367 |
| 10 | 133 | 167 | 177 | 177 | 165 | 167 | e18 | 204 | 1,030 | 486 | 419 | 356 |
| 11 | 133 | 167 | 177 | 177 | 165 | 97 | 19 | 204 | 1,140 | 482 | 423 | 350 |
| 12 | 139 | 167 | 177 | 177 | 165 | 32 | 19 | 207 | 1,250 | 456 | 404 | 278 |
| 13 | 143 | 167 | 177 | 177 | 165 | 32 | 19 | 207 | 1,000 | 458 | 392 | 201 |
| 14 | 164 | 169 | 177 | 177 | 165 | 85 | 19 | 207 | 802 | 458 | 392 | 177 |
| 15 | 160 | 169 | 177 | 177 | 165 | 143 | 19 | 207 | 785 | 454 | 369 | 177 |
| 16 | 160 | 169 | 177 | 177 | 165 | 163 | 19 | 281 | 765 | 466 | 385 | 177 |
| 17 | 160 | 169 | 177 | 177 | 165 | 163 | 19 | 419 | 785 | 490 | 415 | 179 |
| 18 | 160 | 169 | 177 | 177 | 165 | 165 | 19 | 553 | 735 | 470 | 430 | 179 |
| 19 | 160 | 169 | 177 | 177 | 165 | 165 | 18 | 676 | 741 | 458 | 427 | 179 |
| 20 | 160 | 169 | 177 | 177 | 165 | 165 | 18 | 685 | 635 | 466 | 419 | 179 |
| 21 | 160 | 169 | 177 | 177 | 165 | 165 | 18 | 680 | 576 | 466 | 419 | 179 |
| 22 | 160 | 169 | 177 | 177 | 167 | 165 | 18 | 670 | 562 | 478 | 423 | 177 |
| 23 | 160 | 172 | 177 | 165 | 167 | 149 | 19 | 555 | 540 | 478 | 434 | 177 |
| 24 | 160 | 174 | 177 | 160 | 167 | 107 | 80 | 655 | 540 | 486 | 470 | 179 |
| 25 | 160 | 174 | 177 | 160 | 167 | 107 | 165 | 695 | 550 | 490 | 482 | 179 |
| 26 | 163 | 172 | 177 | 160 | 167 | 107 | 163 | 1,110 | 450 | 466 | 466 | 186 |
| 27 | 163 | 172 | 177 | 163 | 167 | 107 | 163 | 1,340 | 400 | 470 | 458 | 204 |
| 28 | 163 | 174 | 177 | 163 | 167 | 107 | 270 | 1,560 | 353 | 466 | 458 | 204 |
| 29 | 163 | 174 | 177 | 163 | - | 85 | 326 | 1,560 | 374 | 442 | 450 | 179 |
| 30 | 165 | 174 | 177 | 163 | - | 39 | 322 | 1,560 | 400 | 423 | 442 | 174 |
| 31 | 165 | - | 177 | 163 | - | 39 | - | 1,560 | - | 419 | 430 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 4,659 | 165 | 131 | 160 | 9,240 |
| November..... | 5,070 | 174 | 165 | 169 | 10,060 |
| December..... | 5,475 | 177 | 174 | 177 | 10,860 |
| Calendar year 1941..... | 75,241 | 922 | 3 | 206 | 149,200 |
| January..... | 5,354 | 177 | 160 | 173 | 10,620 |
| February..... | 4,624 | 167 | 163 | 165 | 9,170 |
| March..... | 4,057 | 167 | 32 | 131 | 8,050 |
| April..... | 1,806 | 326 | 3 | 60.2 | 3,580 |
| May..... | 20,157 | 1,560 | 201 | 650 | 39,980 |
| June..... | 24,845 | 1,560 | 353 | 828 | 49,290 |
| July..... | 14,119 | 490 | 396 | 455 | 28,000 |
| August..... | 13,089 | 482 | 385 | 422 | 25,960 |
| September..... | 7,780 | 411 | 174 | 259 | 15,430 |
| Water year 1941-42..... | 111,038 | 1,560 | 3 | 304 | 220,200 |

a. Discharge computed on basis of records of gate changes at Echo Dam and discharge measurement on Apr. 7.

Note.- Discharge computed from staff-gage readings Nov. 13 to Apr. 23.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Weber River at Devils Slide, Utah

Location.- Water-stage recorder, lat. 41°03'40", long. 111°34'25", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 4 N., R. 3 E., 350 feet (revised) downstream from highway underpass on U. S. Highway 308, 1 $\frac{1}{4}$ miles west of Devils Slide, and 1 $\frac{1}{4}$ miles downstream from Lost Creek.

Drainage area.- 1,100 square miles.

Records available.- February 1905 to September 1942.

Average discharge.- 37 years, 453 second-feet.

Extremes.- Maximum discharge during year, 1,670 second-feet (regulated) May 27, 28 (gauge height, 4.88 feet); minimum, 98 second-feet (regulated) Mar. 14.
1905-42: Maximum discharge observed, 6,000 second-feet May 22, 1920; minimum, 18 second-feet (regulated) Sept. 23, 1934.

Remarks.- Records excellent except those for periods of ice effect and no gage-height record, which are good. Many diversions above station for irrigation and domestic supply. Flow regulated by Echo Reservoir. (See p. 49.)

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-------|-------|------|------|-------|
| 1 | 159 | 176 | 187 | 190 | 175 | 180 | 227 | 704 | 1,580 | 424 | 401 | 409 |
| 2 | 161 | 183 | 190 | 190 | 175 | 180 | 291 | 842 | 1,580 | 424 | 398 | 405 |
| 3 | 153 | 178 | 199 | 190 | 175 | 180 | 317 | 901 | 1,370 | 416 | 390 | 401 |
| 4 | 150 | 178 | 201 | 190 | 175 | 180 | 452 | 901 | 1,020 | 428 | 390 | 401 |
| 5 | 145 | 178 | 194 | 190 | 175 | 180 | 617 | 570 | 960 | 445 | 398 | 412 |
| 6 | 145 | 181 | 196 | 190 | 175 | 180 | 339 | 345 | 960 | 449 | 405 | 420 |
| 7 | 145 | 178 | 192 | 190 | 175 | 180 | 294 | 345 | 1,010 | 457 | 405 | 409 |
| 8 | 145 | 181 | 190 | 190 | 175 | 180 | 272 | 365 | 1,040 | 480 | 401 | 390 |
| 9 | 145 | 183 | 190 | 190 | 175 | 180 | 272 | 401 | 1,040 | 480 | 401 | 376 |
| 10 | 145 | 181 | 194 | 190 | 175 | 210 | 294 | 398 | 1,050 | 484 | 412 | 369 |
| 11 | 145 | 183 | 194 | 190 | 175 | 220 | 308 | 394 | 1,180 | 480 | 416 | 362 |
| 12 | 155 | 183 | 194 | 190 | 175 | 120 | 342 | 394 | 1,280 | 470 | 412 | 308 |
| 13 | 162 | 185 | 194 | 190 | 175 | 110 | 362 | 383 | 1,020 | 466 | 394 | 220 |
| 14 | 170 | 185 | 194 | 190 | 175 | 106 | 383 | 372 | 820 | 462 | 390 | 190 |
| 15 | 175 | 185 | 194 | 190 | 175 | 147 | 372 | 362 | 800 | 449 | 386 | 190 |
| 16 | 175 | 185 | 194 | 190 | 175 | 178 | 339 | 418 | 790 | 475 | 386 | 187 |
| 17 | 176 | 194 | 194 | 190 | 175 | 183 | 333 | 536 | 780 | 498 | 405 | 183 |
| 18 | 176 | 194 | 192 | 190 | 175 | 183 | 308 | 656 | 780 | 475 | 436 | 183 |
| 19 | 176 | 192 | 194 | 190 | 175 | 178 | 285 | 766 | 760 | 453 | 424 | 183 |
| 20 | 176 | 187 | 194 | 190 | 175 | 170 | 308 | 805 | 660 | 457 | 424 | 181 |
| 21 | 178 | 185 | 194 | 190 | 180 | 174 | 345 | 828 | 600 | 462 | 420 | 181 |
| 22 | 176 | 190 | 192 | 190 | 180 | 192 | 369 | 828 | 560 | 462 | 416 | 183 |
| 23 | 176 | 190 | 187 | 180 | 180 | 222 | 348 | 805 | 540 | 470 | 432 | 181 |
| 24 | 178 | 187 | 192 | 178 | 180 | 199 | 320 | 788 | 556 | 470 | 449 | 181 |
| 25 | 178 | 187 | 192 | 175 | 180 | 190 | 416 | 782 | 558 | 484 | 475 | 178 |
| 26 | 176 | 190 | 187 | 175 | 180 | 153 | 390 | 1,150 | 457 | 466 | 462 | 181 |
| 27 | 176 | 187 | 196 | 175 | 180 | 147 | 376 | 1,420 | 424 | 466 | 453 | 206 |
| 28 | 181 | 187 | 187 | 175 | 180 | 161 | 449 | 1,660 | 386 | 457 | 453 | 208 |
| 29 | 178 | 187 | 187 | 175 | - | 181 | 498 | 1,640 | 390 | 441 | 445 | 190 |
| 30 | 178 | 187 | 194 | 175 | - | 187 | 475 | 1,630 | 412 | 416 | 436 | 170 |
| 31 | 176 | - | 192 | 175 | - | 192 | - | 1,600 | - | 405 | 432 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 5,130 | 181 | 145 | 165 | 10,180 |
| November | 5,847 | 194 | 176 | 185 | 11,000 |
| December | 5,971 | 201 | 187 | 193 | 11,640 |
| Calendar year 1941 | 86,047 | 918 | 45 | 236 | 170,700 |
| January | 5,760 | 190 | 175 | 186 | 11,420 |
| February | 4,940 | 180 | 175 | 176 | 9,800 |
| March | 5,293 | 222 | 106 | 174 | 10,700 |
| April | 10,701 | 617 | 227 | 387 | 21,230 |
| May | 23,987 | 1,660 | 345 | 774 | 47,580 |
| June | 25,321 | 1,580 | 386 | 844 | 50,220 |
| July | 14,161 | 488 | 405 | 457 | 28,090 |
| August | 12,947 | 475 | 386 | 418 | 25,680 |
| September | 8,038 | 420 | 170 | 266 | 15,940 |
| Water year 1941-42 | 127,896 | 1,660 | 106 | 350 | 253,700 |

Note.- Stage-discharge relation affected by ice during most of winter period; discharge computed on basis of records for stations at Echo and Devils Slide and weather records. No gage-height record Oct. 4-16, Jan. 2 to Mar. 12, June 2-23; discharge computed on basis of records for stations at Echo and Gateway.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Weber River at Gateway, Utah

Location.- Water-stage recorder, lat. 41°08', long. 111°50', in NW¼ sec. 27, T. 5 N., R. 1 E., 800 feet downstream from Union Pacific Railroad bridge, 2,500 feet downstream from Strawberry Creek, and 2,500 feet east of section house at Gateway.

Drainage area.- 1,610 square miles.

Records available.- June 1919 to September 1942. October 1889 to July 1903 at site 1 mile downstream, published as Weber River near Uinta.

Average discharge.- 22 years (1920-42), 583 second-feet.

Extremes.- Maximum discharge during year (regulated), 2,770 second-feet Apr. 5 (gage height, 5.12 feet); minimum, 195 second-feet (regulated) Feb. 15 (gage height, 0.94 foot)

1889-1903, 1919-42: Maximum observed discharge, 7,980 second-feet May 31, 1896; minimum, 45 second-feet (regulated) Sept. 24, 1934.

Remarks.- Records excellent except those for periods of ice effect, which are fair. Several diversions for irrigation above and below station. Flow affected by East Canyon Creek and Echo Reservoirs (capacity, 28,730 and 73,400 acre-feet, respectively).

Cooperation.- One discharge measurement furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|-------|-------|-------|------|------|-------|
| 1 | 235 | 242 | 239 | 229 | 262 | 240 | 664 | 1,060 | 2,040 | 617 | 541 | 466 |
| 2 | 239 | 286 | 242 | 225 | 259 | 240 | 844 | 1,290 | 2,040 | 622 | 541 | 453 |
| 3 | 245 | 272 | 334 | 225 | 262 | 240 | 994 | 1,280 | 2,010 | 585 | 531 | 453 |
| 4 | 235 | 269 | 414 | 225 | 262 | 259 | 1,770 | 1,280 | 1,690 | 580 | 526 | 448 |
| 5 | 255 | 262 | 304 | 225 | 259 | 248 | 2,080 | 1,090 | 1,520 | 596 | 531 | 466 |
| 6 | 248 | 255 | 265 | 230 | 255 | 279 | 1,310 | 708 | 1,390 | 580 | 536 | 479 |
| 7 | 242 | 252 | 269 | 235 | 265 | 252 | 1,160 | 691 | 1,360 | 585 | 536 | 479 |
| 8 | 239 | 252 | 262 | 240 | 269 | 245 | 1,110 | 764 | 1,360 | 601 | 536 | 466 |
| 9 | 235 | 248 | 259 | 240 | 262 | 269 | 1,140 | 964 | 1,310 | 622 | 531 | 444 |
| 10 | 232 | 252 | 262 | 240 | 255 | 330 | 1,220 | 1,030 | 1,300 | 627 | 541 | 431 |
| 11 | 226 | 248 | 262 | 240 | 245 | 397 | 1,320 | 1,010 | 1,370 | 622 | 560 | 431 |
| 12 | 229 | 252 | 259 | 240 | 242 | 301 | 1,400 | 982 | 1,480 | 606 | 617 | 448 |
| 13 | 242 | 252 | 259 | 240 | 232 | 269 | 1,440 | 970 | 1,420 | 596 | 560 | 349 |
| 14 | 239 | 248 | 259 | 240 | 232 | 219 | 1,540 | 922 | 1,120 | 591 | 546 | 304 |
| 15 | 248 | 245 | 259 | 240 | 232 | 232 | 1,490 | 898 | 1,080 | 580 | 546 | 283 |
| 16 | 242 | 245 | 255 | 240 | 230 | 269 | 1,280 | 1,100 | 1,020 | 611 | 541 | 269 |
| 17 | 242 | 262 | 262 | 240 | 225 | 272 | 1,250 | 1,130 | 998 | 643 | 546 | 265 |
| 18 | 242 | 265 | 259 | 240 | 225 | 279 | 1,100 | 1,210 | 976 | 643 | 526 | 262 |
| 19 | 245 | 259 | 259 | 240 | 225 | 269 | 946 | 1,300 | 976 | 617 | 498 | 265 |
| 20 | 242 | 248 | 255 | 240 | 230 | 255 | 964 | 1,420 | 892 | 606 | 493 | 262 |
| 21 | 248 | 242 | 255 | 240 | 230 | 255 | 1,080 | 1,510 | 764 | 611 | 475 | 262 |
| 22 | 248 | 245 | 259 | 240 | 235 | 276 | 1,280 | 1,570 | 768 | 581 | 466 | 262 |
| 23 | 245 | 242 | 259 | 240 | 240 | 323 | 1,270 | 1,620 | 713 | 591 | 461 | 269 |
| 24 | 245 | 252 | 252 | 230 | 235 | 334 | 1,060 | 1,600 | 689 | 596 | 470 | 265 |
| 25 | 248 | 245 | 245 | 230 | 235 | 315 | 1,080 | 1,580 | 691 | 596 | 507 | 259 |
| 26 | 248 | 242 | 239 | 229 | 235 | 272 | 982 | 1,820 | 735 | 596 | 517 | 259 |
| 27 | 245 | 239 | 248 | 235 | 240 | 290 | 916 | 2,060 | 708 | 585 | 488 | 262 |
| 28 | 265 | 239 | 259 | 272 | 240 | 330 | 1,030 | 2,260 | 669 | 591 | 484 | 262 |
| 29 | 262 | 239 | 248 | 304 | - | 373 | 1,070 | 2,180 | 638 | 585 | 484 | 269 |
| 30 | 248 | 239 | 255 | 276 | - | 406 | 994 | 2,130 | 622 | 546 | 479 | 229 |
| 31 | 245 | - | 248 | 265 | - | 493 | - | 2,090 | - | 536 | 479 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October | 7,529 | 255 | 226 | 243 | 14,830 |
| November | 7,538 | 286 | 239 | 251 | 14,950 |
| December | 8,178 | 414 | 239 | 264 | 16,220 |
| Calendar year 1941 | 130,461 | 1,040 | 120 | 357 | 258,800 |
| January | 7,475 | 304 | 225 | 241 | 14,830 |
| February | 6,818 | 269 | 225 | 244 | 13,520 |
| March | 9,011 | 493 | 225 | 281 | 17,970 |
| April | 35,784 | 2,080 | 664 | 1,190 | 70,960 |
| May | 41,519 | 2,250 | 691 | 1,340 | 82,350 |
| June | 34,339 | 2,040 | 622 | 1,140 | 68,110 |
| July | 16,564 | 643 | 536 | 599 | 36,800 |
| August | 16,093 | 617 | 461 | 519 | 31,920 |
| September | 10,291 | 479 | 229 | 343 | 20,410 |
| Water year 1941-42 | 205,129 | 2,250 | 219 | 557 | 402,900 |

a No gage-height record; discharge interpolated.

Note.- Stage-discharge relation affected by ice Jan. 2-25, Feb. 16 to Mar. 3 (no gage-height record during this period except on Feb. 16, 17; discharge based on records for stations at Devils Slide and Echo and weather records).

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Weber River near Plain City, Utah

Location.- Chain gage, lat. 41°16'42", long. 112°05'30", in NW¼NE¼ sec. 8, T. 6 N., R. 2 W., BT county highway bridge, 1 mile downstream from Fourmile Creek, 1½ miles south of Plain City, and 6 miles upstream from mouth.

Drainage area.- 2,060 square miles.

Records available.- May 1905 to September 1942. Records collected in 1904 by State engineer.

Extremes.- Maximum discharge observed during year, 2,770 second-feet (regulated) Apr. 5 (gage height, 14.32 feet); minimum observed, 15 second-feet (regulated) Aug. 18 (gage height, 1.48 feet).

1904-42: Maximum discharge observed, 7,560 second-feet June 6, 1909 (gage height, 19.1 feet); minimum (regulated), practically no flow during latter part of several summers since 1915.

Remarks.- Records fair October to March and good April to September. Gage read once daily. In summer practically entire flow of Weber River is diverted above station for irrigation. Flow is partly regulated by Echo, East Canyon, and Pine View Reservoirs. (See pp. 49, 56, 59.)

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1 to Dec. 3)

| | | | | | |
|-----|-----|-----|-----|------|-------|
| 1.5 | 16 | 4.5 | 232 | 9.0 | 1,150 |
| 2.0 | 37 | 5.0 | 296 | 10.0 | 1,420 |
| 2.5 | 63 | 5.5 | 372 | 11.5 | 1,870 |
| 3.0 | 95 | 6.0 | 461 | 13.0 | 2,350 |
| 3.5 | 133 | 7.0 | 671 | 14.4 | 2,790 |
| 4.0 | 179 | 8.0 | 906 | | |

Discharge, in second-foot, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|-------|-------|-------|------|------|-------|
| 1 | 50 | 325 | 300 | 452 | 543 | 442 | 916 | 1,560 | 1,940 | 102 | 31 | 33 |
| 2 | 49 | 342 | 354 | 440 | 556 | 476 | 1,200 | 1,970 | 1,810 | 84 | 30 | 33 |
| 3 | 97 | 374 | 377 | 437 | 568 | 480 | 1,320 | 1,760 | 1,860 | 68 | 32 | 37 |
| 4 | 79 | 328 | 726 | 474 | 620 | 476 | 1,720 | 1,970 | 1,790 | 68 | 32 | 38 |
| 5 | 80 | 276 | 623 | 444 | 660 | 504 | 2,770 | 1,680 | 1,380 | 65 | 31 | 50 |
| 6 | 164 | 266 | 488 | 469 | 660 | 554 | 2,650 | 1,420 | 1,160 | 62 | 30 | 40 |
| 7 | 235 | 256 | 442 | 440 | 682 | 549 | 2,280 | 1,320 | 945 | 54 | 28 | 50 |
| 8 | 296 | 332 | 353 | 415 | 692 | 504 | 2,150 | 1,410 | 935 | 52 | 25 | 52 |
| 9 | 217 | 246 | 450 | 444 | 651 | 570 | 2,110 | 1,480 | 672 | 54 | 23 | 50 |
| 10 | 281 | 307 | 465 | 463 | 603 | 601 | 2,080 | 1,480 | 824 | 57 | 24 | 48 |
| 11 | 189 | 292 | 484 | 408 | 572 | 768 | 2,140 | 1,520 | 810 | 57 | 28 | 50 |
| 12 | 177 | 313 | 469 | 408 | 577 | 820 | 2,180 | 1,490 | 972 | 62 | 30 | 60 |
| 13 | 194 | 324 | 496 | 411 | 547 | 772 | 2,200 | 1,460 | 970 | 54 | 58 | 139 |
| 14 | 189 | 312 | 488 | 415 | 514 | 680 | 2,360 | 1,500 | 772 | 54 | 40 | 97 |
| 15 | 254 | 278 | 484 | 419 | 463 | 605 | 2,480 | 1,450 | 676 | 54 | 36 | 74 |
| 16 | 196 | 245 | 470 | 426 | 467 | 592 | 2,160 | 1,610 | 609 | 48 | 30 | 54 |
| 17 | 189 | 338 | 474 | 440 | 470 | 609 | 1,930 | 1,700 | 545 | 34 | 20 | 52 |
| 18 | 196 | 364 | 478 | 452 | 482 | 649 | 1,920 | 1,650 | 472 | 52 | 15 | 50 |
| 19 | 196 | 324 | 470 | 448 | 474 | 609 | 1,470 | 1,720 | 450 | 58 | 18 | 50 |
| 20 | 187 | 361 | 470 | 437 | 467 | 579 | 1,390 | 1,780 | 417 | 54 | 38 | 50 |
| 21 | 199 | 303 | 470 | 437 | 463 | 562 | 1,480 | 1,870 | 334 | 52 | 25 | 50 |
| 22 | 218 | 281 | 467 | 440 | 455 | 601 | 1,580 | 1,930 | 239 | 31 | 31 | 50 |
| 23 | 214 | 265 | 455 | 448 | 444 | 636 | 2,040 | 1,990 | 210 | 31 | 22 | 48 |
| 24 | 211 | 361 | 470 | 444 | 422 | 653 | 1,830 | 2,130 | 153 | 36 | 26 | 50 |
| 25 | 223 | 312 | 469 | 440 | 431 | 636 | 1,800 | 2,170 | 102 | 44 | 26 | 48 |
| 26 | 254 | 358 | 426 | 474 | 428 | 605 | 1,620 | 2,090 | 199 | 38 | 30 | 48 |
| 27 | 309 | 358 | 374 | 496 | 461 | 575 | 1,400 | 2,370 | 171 | 44 | 30 | 36 |
| 28 | 340 | 281 | 437 | 556 | 424 | 601 | 1,610 | 2,560 | 191 | 50 | 38 | 38 |
| 29 | 353 | 351 | 470 | 593 | - | 631 | 1,930 | 2,530 | 169 | 48 | 30 | 48 |
| 30 | 265 | 278 | 482 | 572 | - | 745 | 1,770 | 2,430 | 130 | 56 | 29 | 87 |
| 31 | 359 | - | 478 | 552 | - | 810 | - | 2,110 | - | 44 | 33 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October | 6,448 | 359 | 49 | 208 | 12,790 |
| November | 9,351 | 374 | 245 | 312 | 18,560 |
| December | 14,349 | 726 | 300 | 463 | 28,460 |
| Calendar year 1941 | 116,659 | 1,220 | 25 | 320 | 231,360 |
| January | 14,191 | 598 | 408 | 456 | 28,160 |
| February | 14,776 | 692 | 422 | 528 | 29,310 |
| March | 18,894 | 820 | 442 | 609 | 37,480 |
| April | 56,496 | 2,770 | 916 | 1,885 | 112,060 |
| May | 56,170 | 2,560 | 1,320 | 1,812 | 111,400 |
| June | 21,897 | 1,940 | 99 | 730 | 43,430 |
| July | 1,667 | 108 | 31 | 53.8 | 3,310 |
| August | 919 | 58 | 15 | 29.6 | 1,820 |
| September | 1,590 | 139 | 30 | 53.0 | 3,150 |
| Water year 1941-42 | 216,748 | 2,770 | 15 | 594 | 429,900 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

WEBER RIVER BASIN

Chalk Creek at Coalville, Utah

Location.- Water-stage recorder and concrete control, lat. 40°55'10", long. 111°24'00" (revised), in NE¼SE¼ sec. 8, T. 2 N., R. 5 E., 100 feet downstream from bridge on U. S. Highway 189 in Coalville, a third of a mile upstream from mouth, and 7½ miles downstream from Silver Creek. Prior to Oct. 16, 1941, gage at site 400 feet upstream.

Drainage area.- 253 square miles.

Records available.- October 1904 to December 1905, April 1927 to September 1942.

Average discharge.- 15 years (1927-42), 51.2 second-feet.

Extremes.- Maximum discharge during year, 589 second-feet May 26 (gage height, 2.23 feet); minimum, 8 second-feet Oct. 1.

1927-42: Maximum discharge, 884 second-feet Aug. 21, 1940 (gage height, 3.41 feet, site and datum then in use); minimum, less than 1 second-foot for several days during June to November 1934.

Remarks.- Records good except those during periods of ice effect, which are fair. Several diversions above station for irrigation, none below. Flow slightly affected by Chalk Creek Reservoir (capacity, 1,200 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 8 | 24 | 25 | 20 | | | 85 | 167 | 351 | 61 | 11 | 15 |
| 2 | 10 | 28 | 24 | 20 | | | 70 | 163 | 352 | 61 | 10 | 15 |
| 3 | 11 | 29 | 29 | | | a20 | 89 | 152 | 355 | 57 | 9 | 14 |
| 4 | 11 | 28 | 30 | | a22 | | 177 | 152 | 312 | 55 | 10 | 14 |
| 5 | 19 | 32 | 25 | | | | 308 | 146 | 293 | 55 | 12 | 14 |
| 6 | 25 | 29 | 14 | | | b19 | 225 | 144 | 285 | 51 | 12 | 14 |
| 7 | 25 | 27 | 24 | | 22 | | 18 | 194 | 263 | 51 | 12 | 15 |
| 8 | 25 | 24 | 21 | | | | 18 | 191 | 197 | 243 | 51 | 15 |
| 9 | 23 | 25 | 21 | | a20 | | 24 | 197 | 243 | 223 | 48 | 13 |
| 10 | 22 | 24 | 24 | | | | 29 | 223 | 267 | 210 | 50 | 12 |
| 11 | 22 | 24 | 24 | | | | 29 | 216 | 278 | 197 | 45 | 12 |
| 12 | 23 | 24 | 24 | | | | 29 | 246 | 262 | 177 | 43 | 15 |
| 13 | 30 | 24 | 24 | a10 | | | 24 | 219 | 246 | 171 | 42 | 16 |
| 14 | 30 | 24 | 23 | | | | 21 | 246 | 223 | 157 | 40 | 14 |
| 15 | 25 | 23 | 23 | | | | 18 | 253 | 216 | 146 | 39 | 14 |
| 16 | 24 | 23 | 22 | | | | 21 | 229 | 253 | 136 | 55 | 15 |
| 17 | 23 | 27 | 22 | | | | 24 | 223 | 249 | 124 | 45 | 16 |
| 18 | 23 | 28 | 19 | | | | 23 | 223 | 229 | 116 | 42 | 17 |
| 19 | 22 | 24 | 27 | | | | 20 | 188 | 226 | 104 | 42 | 18 |
| 20 | 22 | 16 | 20 | | a18 | | 14 | 207 | 226 | 109 | 40 | 18 |
| 21 | 24 | 15 | 25 | | | | 19 | 226 | 285 | 100 | 34 | 18 |
| 22 | 24 | 21 | 20 | | | | 24 | 293 | 377 | 93 | 30 | 18 |
| 23 | 24 | 15 | 12 | | | | 37 | 316 | 444 | 87 | 25 | 17 |
| 24 | 23 | 20 | 20 | 20 | | | 42 | 256 | 496 | 76 | 24 | 18 |
| 25 | 25 | 23 | 22 | | | | 32 | 219 | 477 | 68 | 23 | 17 |
| 26 | 27 | 24 | 20 | | | | 25 | 194 | 542 | 68 | 22 | 16 |
| 27 | 24 | 23 | 14 | a20 | | | 23 | 171 | 526 | 72 | 21 | 14 |
| 28 | 28 | 25 | 18 | | | | 28 | 177 | 421 | 72 | 20 | 14 |
| 29 | 28 | 24 | 22 | | | | 34 | 174 | 416 | 70 | 16 | 14 |
| 30 | 27 | 24 | 22 | | | | 40 | 160 | 352 | 66 | 14 | 15 |
| 31 | 24 | - | 21 | 22 | | | 53 | - | 331 | - | 13 | 12 |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 701 | 30 | 8 | 22.6 | 1,590 |
| November | 721 | 32 | 15 | 24.0 | 1,450 |
| December | 681 | 30 | 12 | 22.0 | 1,350 |
| Calendar year 1941 | 12,350 | 260 | 4 | 35.8 | 24,447 |
| January | 580 | 22 | 18 | 18.7 | 1,150 |
| February | 538 | 22 | 18 | 19.2 | 1,070 |
| March | 786 | 53 | 14 | 25.4 | 1,560 |
| April | 6,193 | 316 | 70 | 206 | 12,820 |
| May | 8,884 | 542 | 144 | 287 | 17,620 |
| June | 5,056 | 352 | 66 | 169 | 10,050 |
| July | 1,215 | 61 | 13 | 39.2 | 2,410 |
| August | 444 | 18 | 9 | 14.3 | 880 |
| September | 448 | 19 | 12 | 14.9 | 890 |
| Water year 1941-42 | 26,247 | 542 | 8 | 71.9 | 52,060 |

a No gage-height record (stage-discharge relation affected by ice during most of period); discharge computed on basis of records for Sevier River at Coalville, and weather records.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Lost Creek near Croydon, Utah

Location.- Water-stage recorder, lat. 41°11', long. 111°24', in SW¼SE¼ sec. 8, T. 5 N., R. 5 E., 0.8 mile downstream from Francis Fork, 1.6 miles upstream from Hill Canyon, and 9½ miles northeast of Croydon. Former gage at same site, but at different datum.

Drainage area.- 133 square miles.

Records available.- February 1921 to December 1923, April 1941 to September 1942.

Extremes.- 1941: Maximum discharge during period April to September, 66 second-feet May 4 (gage height, 1.85 feet); minimum, 3 second-feet several days in August and September.

1942: Maximum discharge during water year, 106 second-feet probably on Apr. 14 (gage height, 2.41 feet); minimum, 3 second-feet several days in August and September. 1921-23, 1941-42: Maximum discharge, 770 second-feet May 10, 11, 18, 1923 (gage height, 4.20 feet, datum then in use), from rating curve extended above 200 second-feet; minimum, that of August and September 1941, 1942.

Remarks.- Records good except those during periods of ice effect and no gage-height records, which are fair. No diversions above station.

WEBER RIVER BASIN

Discharge, in second-feet, of Lost Creek near Croydon, Utah, 1941-42

1941

| Day | Apr. | May | June | July | Aug. | Sept. | Day | Apr. | May | June | July | Aug. | Sept. |
|-----|------|-----|------|------|------|-------|-----|------|-----|------|------|------|-------|
| 1 | - | 58 | a11 | 8 | 4 | 4 | 16 | 26 | 33 | 12 | 4 | 5 | 5 |
| 2 | - | 61 | a10 | 8 | 4 | 4 | 17 | 25 | 30 | 11 | 4 | 5 | 5 |
| 3 | - | 62 | a10 | 7 | 4 | 5 | 18 | 23 | 28 | 11 | 4 | 5 | 5 |
| 4 | - | 64 | a11 | 7 | 4 | 6 | 19 | 21 | 26 | 10 | 5 | 4 | 5 |
| 5 | - | 62 | a11 | 6 | 4 | 5 | 20 | 20 | a22 | 9 | 6 | 4 | 5 |
| 6 | - | 60 | 16 | 6 | 4 | 5 | 21 | 19 | a20 | 9 | 5 | 4 | 5 |
| 7 | - | 57 | 25 | 6 | 4 | 5 | 22 | 19 | a18 | 9 | 4 | 4 | 6 |
| 8 | 21 | 58 | 19 | 6 | 8 | 5 | 23 | 22 | a16 | 8 | 4 | 4 | 6 |
| 9 | 21 | 58 | 23 | 5 | 6 | 5 | 24 | 26 | a15 | 8 | 4 | 4 | 6 |
| 10 | 25 | 56 | 21 | 5 | 7 | 5 | 25 | 31 | a14 | 8 | 5 | 5 | 6 |
| 11 | 23 | 53 | 17 | 5 | 7 | 5 | 26 | 36 | a13 | 8 | 6 | 4 | 6 |
| 12 | 23 | 50 | 16 | 5 | 9 | 4 | 27 | 41 | a13 | 8 | 6 | 4 | 6 |
| 13 | 25 | 46 | 15 | 5 | 6 | 5 | 28 | 45 | a16 | 8 | 5 | 4 | 6 |
| 14 | 23 | 42 | 14 | 5 | 5 | 5 | 29 | 50 | a15 | 8 | 4 | 4 | 6 |
| 15 | 22 | 35 | 13 | 4 | 4 | 5 | 30 | 56 | a13 | 8 | 4 | 4 | 6 |
| | | | | | | | 31 | - | a12 | - | 4 | 5 | - |

a No gage-height record; discharge computed on basis of records for South Fork of Ogden River near Huntsville, Chalk Creek at Coalville, Weber River near Oakley, and weather records.

1941-42

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 6 | 8 | 7 | | | | a12 | 49 | 31 | 10 | 3 | 3 |
| 2 | 6 | 10 | 7 | | | | a20 | 48 | 30 | 10 | 3 | 3 |
| 3 | 6 | 10 | 8 | | | | 37 | 44 | 28 | 10 | 3 | 3 |
| 4 | 7 | 11 | 9 | | | | 65 | 43 | 27 | 9 | 3 | 3 |
| 5 | 8 | 12 | 8 | | | a5 | 79 | 42 | 26 | 9 | 4 | 3 |
| 8 | 9 | 10 | b7 | | | | a68 | 41 | 24 | 8 | 3 | 3 |
| 7 | 8 | 10 | | | | | a62 | 42 | 23 | 8 | 3 | 3 |
| 8 | 8 | 9 | | | | | a61 | 52 | 22 | 8 | 3 | 3 |
| 9 | 8 | 8 | | | | | a64 | 64 | 21 | 7 | 3 | 3 |
| 10 | 8 | 8 | | | | | a68 | 67 | 19 | 7 | 3 | 3 |
| 11 | 7 | 8 | | | | | a74 | 69 | 19 | 6 | 3 | 4 |
| 12 | 8 | 8 | a10 | | | | a84 | 63 | 18 | 6 | 4 | 6 |
| 13 | 8 | a8 | | | | | a2 | 63 | 18 | 6 | 4 | 6 |
| 14 | a8 | a8 | | | | | a106 | 58 | 16 | 6 | 4 | 5 |
| 15 | 7 | 8 | | a5 | a5 | | a90 | 55 | 16 | 5 | 4 | 5 |
| 16 | 7 | 8 | | | | | 86 | 56 | 15 | 6 | 3 | 4 |
| 17 | 7 | 10 | | | | | 87 | 55 | 14 | 6 | 3 | 4 |
| 18 | 7 | 9 | | | | a6 | 85 | 52 | 14 | 6 | 3 | 4 |
| 19 | 7 | 8 | | | | | 78 | 50 | 13 | 5 | 4 | 5 |
| 20 | 7 | b6 | | | | | 84 | 50 | 13 | 5 | 3 | 5 |
| 21 | 9 | b6 | | | | | 92 | 55 | 13 | 4 | 3 | 5 |
| 22 | 10 | b6 | | | | | 100 | 61 | 12 | 4 | 3 | 5 |
| 23 | 8 | b6 | a6 | | | | 96 | 61 | 12 | 4 | 3 | 5 |
| 24 | 8 | b7 | | | | | 85 | 60 | 11 | 4 | 3 | 5 |
| 25 | 8 | b7 | | | | | 78 | 56 | 11 | 4 | 3 | 4 |
| 26 | 8 | b7 | | | | | 70 | 52 | 12 | 4 | 3 | 4 |
| 27 | 8 | b7 | | | | | 65 | 51 | 13 | 4 | 3 | 4 |
| 28 | 9 | b7 | | | | a7 | 65 | 45 | 12 | 4 | 3 | 4 |
| 29 | 10 | b7 | | | | a7 | 58 | 42 | 11 | 4 | 3 | 4 |
| 30 | 9 | 7 | | | | a8 | 54 | 38 | 10 | 4 | 3 | 4 |
| 31 | 8 | - | | | | a10 | - | 34 | - | 4 | 3 | - |

a No gage-height record; discharge computed on basis of records for South Fork of Ogden River near Huntsville, Chalk Creek at Coalville, and weather records.
 b Stage-discharge relation affected by ice.

Monthly discharge, in second-feet, 1941-42

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| April 8-30, 1941 | 643 | 56 | 19 | 28.0 | 1,280 |
| May | 1,126 | 64 | 12 | 36.3 | 2,230 |
| June | 364 | 23 | 8 | 12.1 | 722 |
| July | 162 | 8 | 4 | 5.2 | 321 |
| August | 149 | 9 | 4 | 4.8 | 296 |
| September | 157 | 6 | 4 | 5.2 | 311 |
| The period | - | - | - | - | 5,160 |
| October 1941 | 241 | 10 | 6 | 7.8 | 478 |
| November | 245 | 12 | 6 | 8.2 | 486 |
| December | 205 | 9 | 6 | 6.6 | 407 |
| Calendar year | - | - | - | - | - |
| January 1942 | 155 | - | - | 5.0 | 307 |
| February | 140 | - | - | 5.0 | 275 |
| March | 186 | 10 | - | 6.0 | 369 |
| April | 2,161 | 106 | 12 | 72.0 | 4,290 |
| May | 1,623 | 69 | 34 | 52.4 | 3,220 |
| June | 524 | 31 | 10 | 17.5 | 1,040 |
| July | 187 | 10 | 4 | 6.0 | 371 |
| August | 99 | 4 | 3 | 3.2 | 196 |
| September | 122 | 6 | 3 | 4.1 | 242 |
| Water year 1941-42 | 5,888 | 106 | 3 | 16.1 | 11,680 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

East Canyon Reservoir near Morgan, Utah

Location.- Staff gage, lat. 40°55'20", long. 111°35'50", in NE $\frac{1}{4}$ sec. 10, T. 2 N., R. 3 E., 500 feet east of East Canyon Dam and 9 miles southeast of Morgan.

Drainage area.- 144 square miles.

Records available.- October 1937 to September 1942 in reports of Geological Survey. November 1931 to September 1941 in reports of Weber River water commissioner.

Extremes.- Maximum contents observed during year, 28,820 acre-feet May 28 (gage height, 141.00); minimum observed, 14,240 acre-feet Sept. 30, 1931-42: Maximum contents, 28,730 acre-feet May 25 to June 25, 1937 and June 4-25, 1938 (gage height, 140.83 feet); no storage Nov. 1, 1931, Sept. 2 to Nov. 1, 1934, Sept. 11 to Oct. 18, 1937.

Remarks.- Reservoir was formed in 1896 by a 58-foot rock-fill dam (capacity, 3,850 acre-feet), which was raised 25 feet in 1900 (capacity, 9,000 acre-feet), was raised 12 feet more in 1902 (capacity, 14,000 acre-feet), and later was replaced by present concrete dam, which formed a reservoir having a capacity of 28,730 acre-feet between gage height 0.0 foot, (bottom of outlet tunnel) and 140.8 feet (top of flash-boards on spillway). Spillway crest is at gage height 135 feet. No dead storage. Water is used for irrigation in Davis and Weber Counties.

Contents, in acre-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|--------|--------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| 1 | 15,650 | 16,500 | - | - | - | - | 21,840 | 27,960 | 28,730 | 27,570 | 19,750 | 15,250 |
| 2 | 15,630 | 16,550 | - | - | - | - | - | 27,870 | 28,600 | 27,510 | 19,470 | 15,180 |
| 3 | 15,660 | 16,640 | - | - | - | - | - | 27,740 | 28,450 | 27,050 | 19,220 | 15,120 |
| 4 | 15,680 | 16,690 | - | - | 19,860 | 20,720 | - | 27,740 | 28,170 | 26,790 | 19,040 | 15,120 |
| 5 | 15,700 | 16,720 | - | - | - | - | - | 27,740 | 27,870 | 26,570 | 18,860 | 15,000 |
| 6 | 15,740 | 16,760 | - | - | - | - | - | 27,780 | 27,910 | 26,310 | 18,640 | 14,980 |
| 7 | 15,760 | 16,800 | 17,980 | 18,940 | - | - | - | 27,870 | 28,090 | 26,050 | 18,420 | 14,900 |
| 8 | 15,780 | 16,820 | - | - | - | - | 26,660 | 28,000 | 28,220 | 25,790 | 18,180 | 14,820 |
| 9 | 15,800 | 16,880 | - | - | - | - | 25,730 | 28,130 | 28,520 | 25,540 | 17,960 | 14,750 |
| 10 | 15,830 | - | - | - | - | - | 25,920 | 28,220 | 28,560 | 25,260 | 17,740 | 14,680 |
| 11 | 15,840 | - | - | - | 20,150 | 20,910 | 25,880 | 28,220 | 28,780 | 25,020 | 17,560 | 15,600 |
| 12 | 15,850 | - | - | - | - | - | 25,830 | 28,220 | 28,730 | 24,780 | 17,370 | 14,550 |
| 13 | 15,880 | - | - | - | - | - | 25,830 | 28,220 | 28,730 | 24,500 | 17,200 | 14,500 |
| 14 | 15,900 | - | 18,190 | 19,100 | - | - | 25,790 | 28,220 | 28,730 | 24,220 | 17,010 | 14,450 |
| 15 | 15,930 | - | - | - | - | - | 25,880 | 28,170 | 28,730 | 23,940 | 16,820 | 14,380 |
| 16 | 15,960 | 17,100 | - | - | - | - | 26,010 | 28,130 | 28,730 | 23,690 | 16,610 | 14,380 |
| 17 | 15,970 | - | - | - | - | - | 26,090 | 28,170 | 28,730 | 23,460 | 16,390 | 14,380 |
| 18 | 15,980 | - | - | - | 20,250 | 21,340 | 26,400 | 28,130 | 28,730 | 23,220 | 16,120 | 14,380 |
| 19 | 16,010 | - | - | - | - | - | 26,780 | 28,040 | 28,730 | 22,960 | 16,040 | 14,380 |
| 20 | 16,040 | - | - | - | - | - | 27,060 | 28,000 | 28,730 | 22,720 | 16,010 | 14,350 |
| 21 | 16,070 | - | 18,450 | 19,300 | - | - | 27,390 | 27,960 | 28,780 | 22,460 | 15,930 | 14,350 |
| 22 | 16,110 | - | - | - | - | - | 27,650 | 28,000 | 28,780 | 22,190 | 15,880 | 14,350 |
| 23 | 16,150 | 17,370 | - | - | - | - | 27,910 | 28,090 | 28,780 | 21,960 | 15,830 | 14,330 |
| 24 | 16,170 | - | - | - | - | - | 28,040 | 28,220 | 28,780 | 21,650 | 15,780 | 14,310 |
| 25 | 16,200 | - | - | 20,470 | 21,690 | 21,690 | 28,040 | 28,390 | 28,780 | 21,390 | 15,680 | 14,310 |
| 26 | 16,250 | - | - | - | - | - | 28,000 | 28,520 | 28,600 | 21,090 | 15,630 | 14,280 |
| 27 | 16,270 | - | - | - | - | - | 27,960 | 28,650 | 28,390 | 20,890 | 15,580 | 14,280 |
| 28 | 16,320 | - | 18,610 | 19,560 | a20,580 | - | 27,910 | 28,780 | 28,170 | 20,660 | 15,530 | 14,260 |
| 29 | 16,360 | - | - | - | - | - | 28,000 | 28,820 | 27,960 | 20,440 | 15,480 | 14,260 |
| 30 | 16,380 | 17,580 | - | - | - | - | 28,000 | 28,780 | 27,740 | 20,190 | 15,380 | 14,240 |
| 31 | 16,410 | - | a18,710 | a19,690 | - | a21,820 | - | 28,720 | - | 19,940 | 15,300 | - |

a No gage-height record; contents interpolated.

Monthly gage height and contents, water year October 1941 to September 1942

| Date | Gage height (feet) | Contents (acre-feet) | Change in contents during month (acre-feet) |
|-------------------------|--------------------|----------------------|---|
| Sept. 30..... | 109.17 | 15,650 | - |
| Oct. 31..... | 111.66 | 16,410 | +760 |
| Nov. 30..... | 115.25 | 17,580 | +1,170 |
| Dec. 31..... | - | a18,710 | +1,130 |
| Calendar year 1941..... | - | - | +10,950 |
| Jan. 31..... | - | a19,690 | +980 |
| Feb. 28..... | - | a20,580 | +890 |
| Mar. 31..... | - | a21,820 | +1,240 |
| Apr. 30..... | 139.42 | 28,000 | +6,180 |
| May 31..... | 140.83 | 28,730 | +760 |
| June 30..... | 138.92 | 27,740 | -990 |
| July 31..... | 122.17 | 19,940 | -7,800 |
| Aug. 31..... | 108.09 | 15,300 | -4,640 |
| Sept. 30..... | 104.50 | 14,240 | -1,060 |
| Water year 1941-42..... | - | - | -1,590 |

a No gage-height record; contents interpolated.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1943; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

East Canyon Creek near Morgan, Utah

Location.- Water-stage recorder and Lyman rectangular weir, lat. 40°55'20", long. 111°36'20". In NW¼ sec. 10, T. 2 N., R. 3 E., 2,500 feet downstream from East Canyon Dam, 2½ miles upstream from Sheep Canyon, and 9 miles southeast of Morgan.

Drainage area.- 145 square miles.

Records available.- October 1937 to September 1942 in reports of Geological Survey. October 1931 to September 1942 in reports of Weber River water commissioner.

Extremes (regulated).- Maximum daily discharge during year, 259 second-feet Apr. 11-13 (gage height, 1.65 feet); minimum daily, 9 second-feet Nov. 4-12, 20-26. 1931-42: Maximum daily discharge, 412 second-feet Apr. 23, 1936; minimum daily, 5 second-feet Jan. 20 to Apr. 10, Nov. 4-19, 1935.

Remarks.- Records good. No diversions between station and East Canyon Reservoir (see preceding page) which completely regulates flow.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | h20 | 13 | 10 | 10 | 11 | 11 | h43 | 142 | 156 | 130 | 129 | 46 |
| 2 | h21 | h13 | 10 | 11 | 11 | 11 | h43 | 134 | 170 | 130 | 129 | 46 |
| 3 | 20 | h11 | 10 | 11 | 11 | 11 | h54 | 125 | 224 | 130 | 127 | 45 |
| 4 | 19 | h9 | 10 | 11 | h11 | h11 | h81 | 108 | 224 | 130 | 129 | 45 |
| 5 | 19 | 9 | 10 | 11 | 11 | 11 | h112 | 93 | 184 | 130 | 129 | 45 |
| 6 | 18 | 9 | 10 | 11 | 11 | 11 | h123 | 64 | 13 | 130 | 130 | 45 |
| 7 | 18 | 9 | h10 | h11 | 11 | 11 | h146 | 56 | 13 | 130 | 130 | 45 |
| 8 | 17 | 9 | 10 | 11 | 11 | 11 | h173 | 58 | 13 | 130 | 130 | 45 |
| 9 | 17 | h9 | 10 | 11 | 11 | 11 | h226 | 76 | 13 | 130 | 129 | 45 |
| 10 | 16 | 9 | 10 | 11 | 11 | 11 | h257 | 127 | 13 | 130 | 130 | 45 |
| 11 | h16 | 9 | 10 | 11 | h11 | h11 | h259 | 134 | 93 | 130 | 130 | 46 |
| 12 | h16 | 9 | 10 | 11 | 11 | 11 | h259 | 134 | 101 | 130 | 129 | 46 |
| 13 | 16 | 10 | 10 | 11 | 11 | 11 | h259 | 140 | 81 | 130 | 129 | 46 |
| 14 | 16 | 10 | h10 | h11 | 11 | 11 | h242 | 148 | 81 | 130 | 129 | 40 |
| 15 | 16 | 10 | 10 | 11 | 11 | 11 | 173 | 148 | 81 | 130 | 127 | 24 |
| 16 | 14 | h10 | 10 | 11 | 11 | 11 | 173 | 150 | 76 | h130 | 127 | 25 |
| 17 | 14 | 10 | 10 | 11 | 11 | 11 | 108 | 146 | 62 | h130 | 100 | 25 |
| 18 | 13 | 10 | 10 | 11 | h11 | h11 | 37 | 140 | 56 | h130 | 45 | 25 |
| 19 | h13 | 10 | 10 | 11 | 11 | 11 | 43 | 134 | 48 | h130 | 46 | 25 |
| 20 | 13 | 9 | 10 | 11 | 11 | 11 | 46 | 134 | 35 | h130 | 46 | 25 |
| 21 | 13 | 9 | h10 | h11 | 11 | 11 | 55 | 121 | 26 | h130 | 46 | 25 |
| 22 | 13 | h9 | 10 | 11 | 11 | 11 | 101 | 81 | 24 | h130 | 45 | 24 |
| 23 | 13 | 9 | 10 | 11 | 11 | 11 | 134 | 83 | 35 | h130 | 45 | 24 |
| 24 | 13 | 9 | 10 | 11 | 11 | 11 | 158 | 84 | 45 | h130 | 45 | 24 |
| 25 | 13 | 9 | 10 | 11 | h11 | h11 | 162 | 84 | 37 | h130 | 46 | 24 |
| 26 | h13 | 9 | 10 | 11 | 11 | 11 | 162 | 110 | 132 | h130 | 45 | 24 |
| 27 | 13 | 10 | 10 | 11 | 11 | h11 | 144 | 130 | 130 | h130 | 45 | 24 |
| 28 | 13 | 10 | h10 | h11 | 11 | h26 | 142 | 136 | 130 | h130 | 45 | 24 |
| 29 | 13 | 10 | 10 | 11 | - | h43 | 142 | 168 | 129 | h130 | 45 | 24 |
| 30 | 13 | h10 | 10 | 11 | - | h42 | 142 | 160 | 129 | h130 | 45 | 22 |
| 31 | 13 | - | 10 | 11 | - | h42 | - | 147 | - | h130 | 46 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 473 | 21 | 13 | 15.3 | 938 |
| November..... | 291 | 13 | 9 | 9.7 | 577 |
| December..... | 310 | 10 | 10 | 10.0 | 615 |
| Calendar year 1941..... | 7,594 | 130 | 6 | 20.8 | 16,070 |
| January..... | 340 | 11 | 10 | 11.0 | 674 |
| February..... | 303 | 11 | 11 | 11.0 | 611 |
| March..... | 450 | 43 | 11 | 14.5 | 893 |
| April..... | 4,189 | 259 | 37 | 140 | 8,310 |
| May..... | 3,685 | 160 | 56 | 119 | 7,310 |
| June..... | 2,602 | 224 | 13 | 86.7 | 5,160 |
| July..... | 4,030 | 130 | 130 | 130 | 7,990 |
| August..... | 2,797 | 130 | 45 | 90.2 | 5,550 |
| September..... | 1,015 | 46 | 22 | 33.9 | 2,020 |
| Water year 1941-42..... | 20,493 | 259 | 9 | 56.1 | 40,650 |

h Staff gage-reading this day.

Notes.- Recorder not operating Oct. 1 to Apr. 14 and July 16-30; discharge computed on basis of staff-gage readings on days indicated.

Time basis.- Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

WEBER RIVER BASIN

South Fork of Ogden River near Huntsville, Utah

Location.- Water-stage recorder, lat. 41°16', long. 111°40', in ~~32~~³² sec. 12, T. 6 N., R. 2 E., half a mile downstream from Magpie Creek, 1 mile upstream from Huntsville Mountain Canal, and 5½ miles east of Huntsville.

Drainage area.- 148 square miles.

Records available.- March 1921 to September 1942.

Average discharge.- 21 years, 102 second-feet.

Extremes.- Maximum discharge during year, 597 second-feet Apr. 13 (gage height, 3.24 feet); minimum recorded, 26 second-feet Nov. 20 (may have been less during period of ice effect).

1921-42: Maximum discharge, 1,780 second-feet May 4, 1936 (gage height, 5.45 feet) from rating curve extended above 900 second-feet; minimum observed, 20 second-feet Nov. 25, 1931, July 28, 1934.

Remarks.- Records good except those for periods of ice effect and no gage-height record, which are fair. Only small diversions above station.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 30 | 32 | 32 | b35 | b55 | b54 | 140 | 166 | 203 | 61 | 34 | 32 |
| 2 | 30 | 40 | 32 | b32 | b37 | b34 | 168 | 184 | 189 | 59 | 34 | 31 |
| 3 | 30 | 38 | 37 | b50 | b37 | 34 | 191 | 172 | 179 | 58 | 34 | 31 |
| 4 | 30 | 40 | 44 | b28 | b56 | 37 | 267 | 166 | 170 | a56 | 34 | 30 |
| 5 | 34 | 39 | 39 | b27 | b37 | 36 | 347 | 166 | 159 | a54 | 34 | 30 |
| 6 | 35 | 37 | 35 | b28 | b37 | 37 | 318 | 168 | 150 | a52 | 35 | 31 |
| 7 | 33 | 35 | 36 | b29 | b37 | 40 | 276 | 168 | 144 | a50 | 32 | 31 |
| 8 | 33 | 34 | 35 | b30 | b36 | 45 | 264 | 182 | 136 | a48 | 32 | 30 |
| 9 | 32 | 34 | 34 | b31 | b36 | 41 | 302 | 248 | 130 | 46 | 32 | 30 |
| 10 | 32 | 33 | 35 | b31 | b33 | 46 | 340 | 278 | 120 | 46 | 32 | 30 |
| 11 | 32 | 33 | 35 | b31 | b34 | 53 | 387 | 275 | 111 | 45 | 33 | 32 |
| 12 | 32 | 32 | 34 | b31 | b35 | 57 | 456 | 264 | 109 | 46 | 34 | 39 |
| 13 | 34 | 32 | 35 | b32 | b33 | 59 | 503 | 237 | 100 | 43 | 32 | 36 |
| 14 | 32 | 32 | 35 | b32 | b33 | 58 | 547 | 226 | 97 | 42 | 32 | 32 |
| 15 | 32 | 32 | 35 | b32 | b32 | 56 | 483 | 221 | 94 | 41 | 32 | 32 |
| 16 | 32 | 32 | 35 | b32 | b32 | 53 | 430 | 224 | 89 | 41 | 32 | 32 |
| 17 | 32 | 35 | 36 | b32 | b32 | 53 | 427 | 229 | 85 | 42 | 32 | 32 |
| 18 | 32 | 35 | 35 | b32 | b30 | 54 | 384 | 234 | 82 | 42 | 32 | 32 |
| 19 | 32 | 34 | 35 | b31 | b30 | 52 | 360 | 237 | 79 | 40 | 33 | 32 |
| 20 | 32 | 33 | 35 | b30 | b31 | 50 | 380 | 261 | 79 | 40 | 32 | 33 |
| 21 | 35 | b31 | 35 | b30 | b33 | 50 | 442 | 324 | 76 | 38 | 32 | 33 |
| 22 | 34 | b28 | 35 | b31 | b35 | 52 | 531 | 387 | 72 | 38 | 32 | 35 |
| 23 | 33 | b28 | 35 | b32 | b35 | 56 | 483 | 409 | 71 | 38 | 32 | 34 |
| 24 | 33 | b29 | 35 | b32 | b35 | 62 | 394 | 412 | 70 | 37 | 32 | 30 |
| 25 | 34 | b30 | 34 | b32 | b35 | 64 | 334 | 387 | 67 | 36 | 33 | 32 |
| 26 | 33 | b31 | 32 | 32 | b34 | 62 | 284 | 373 | 70 | 35 | 34 | 32 |
| 27 | 33 | b32 | b31 | 33 | b34 | 62 | 263 | 337 | 71 | 35 | 32 | 32 |
| 28 | 36 | b33 | b34 | b36 | b34 | 66 | 239 | 299 | 68 | 35 | 32 | 32 |
| 29 | 35 | 34 | 36 | b37 | - | 70 | 213 | 270 | 64 | 36 | 32 | 31 |
| 30 | 34 | 33 | 35 | b37 | - | 66 | 206 | 248 | 62 | 35 | 32 | 32 |
| 31 | 33 | - | 35 | b36 | - | 106 | - | 224 | - | 35 | 32 | 32 |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,014 | 36 | 30 | 32.7 | 2,010 |
| November..... | 1,001 | 40 | 28 | 33.4 | 1,990 |
| December..... | 1,086 | 44 | 31 | 35.0 | 2,150 |
| Calendar year 1941..... | 22,240 | 340 | 25 | 60.9 | 44,120 |
| January..... | 982 | 37 | 27 | 31.7 | 1,950 |
| February..... | 960 | 37 | 30 | 34.3 | 1,900 |
| March..... | 1,663 | 106 | 34 | 53.6 | 3,300 |
| April..... | 10,369 | 547 | 140 | 346 | 20,570 |
| May..... | 8,009 | 412 | 166 | 258 | 15,890 |
| June..... | 3,198 | 203 | 62 | 107 | 6,340 |
| July..... | 1,350 | 61 | 35 | 45.5 | 2,680 |
| August..... | 1,010 | 34 | 32 | 32.6 | 2,000 |
| September..... | 958 | 39 | 30 | 31.9 | 1,900 |
| Water year 1941-42..... | 31,600 | 547 | 27 | 66.6 | 62,690 |

a No gage-height record; discharge interpolated.

b Stage-discharge relation affected by ice; discharge computed on basis of records for Spanish Fork at Castilla.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pine View Reservoir near Ogden, Utah

Location.- Staff gage, lat. 41°15'20", long. 111°50'25" in N½S½ sec. 16, T. 6 N., R. 1 E., at trash rack at Pine View Dam on Ogden River, 7 miles northeast of Ogden. Datum of gage is at mean sea level.

Drainage area.- 310 square miles.

Records available.- November 1936 to September 1942.

Extremes.- Maximum contents during year, 43,580 acre-feet June 1-8 (elevation, 4,872.00 feet); minimum, 5,770 acre-feet Mar. 23 (elevation, 4,838.76 feet).
1936-42: Maximum contents, 45,370 acre-feet May 17, 1938 (elevation, 4,873.00 feet); minimum, 80 acre-feet Feb. 19, 1937 (elevation, 4,818.99 feet).

Remarks.- Reservoir is formed by earth-fill, rock-faced dam; storage began Nov. 16, 1936. Capacity, 43,580 acre-feet between elevations 4,818 feet (sill of trash rack structure) and 4,872 feet (top of spillway gates), above mean sea level; during September 1939 sills of radial spillway gates were raised one foot, thus changing the top of spillway gates from elevation 4,871 feet to 4,872 feet). Dead storage, 45 acre-feet (below elevation 4,818 feet) which must be deducted from the figures of total contents shown in the tables, to obtain usable contents. Water is used for irrigation on the Ogden River Project. Gage is read daily at 8 a.m.; contents are as of that time.

Cooperation.- Capacity table furnished by Bureau of Reclamation.

Contents in acre-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 1 | 21,820 | 19,770 | 18,890 | 15,360 | 10,390 | 7,140 | 6,690 | 40,720 | 43,580 | 39,740 | 31,770 | 22,490 |
| 2 | 21,750 | 19,790 | 18,890 | 15,210 | 10,320 | 7,030 | 7,540 | 40,600 | 43,580 | 39,570 | 31,480 | 22,320 |
| 3 | 21,470 | 19,950 | 18,870 | 15,060 | 10,170 | 6,890 | 8,490 | 40,270 | 43,580 | 39,380 | 31,170 | 22,060 |
| 4 | 21,240 | 20,020 | 18,990 | 14,870 | 9,980 | 6,770 | 9,010 | 40,120 | 43,580 | 39,250 | 30,810 | 21,820 |
| 5 | 21,140 | 20,000 | 18,970 | 14,670 | 9,890 | 6,600 | 11,070 | 39,980 | 43,580 | 38,920 | 30,480 | 21,530 |
| 6 | 21,120 | 19,930 | 18,940 | 14,470 | 9,800 | 6,440 | 13,000 | 39,820 | 43,580 | 38,590 | 30,200 | 21,240 |
| 7 | 21,040 | 19,850 | 18,910 | 14,330 | 9,720 | 6,250 | 13,950 | 39,660 | 43,580 | 38,190 | 29,920 | 20,960 |
| 8 | 20,900 | 19,770 | 18,920 | 14,200 | 9,640 | 6,090 | 14,850 | 39,520 | 43,580 | 37,870 | 29,620 | 20,700 |
| 9 | 20,790 | 19,710 | 18,880 | 14,060 | 9,640 | 6,030 | 15,680 | 39,770 | 43,400 | 37,580 | 29,350 | 20,470 |
| 10 | 20,660 | 19,640 | 18,790 | 14,000 | 9,540 | 5,980 | 16,640 | 38,980 | 43,230 | 37,420 | 29,020 | 20,230 |
| 11 | 20,570 | 19,600 | 18,690 | 13,900 | 9,430 | 5,870 | 17,780 | 40,320 | 43,090 | 37,260 | 28,680 | 19,960 |
| 12 | 20,460 | 19,520 | 18,570 | 13,800 | 9,350 | 5,870 | 19,700 | 40,570 | 42,950 | 37,080 | 28,500 | 19,830 |
| 13 | 20,580 | 19,450 | 18,480 | 13,650 | 9,200 | 5,860 | 21,400 | 40,820 | 42,740 | 36,920 | 27,970 | 19,650 |
| 14 | 20,810 | 19,400 | 18,370 | 13,480 | 9,050 | 5,850 | 23,180 | 40,820 | 42,560 | 36,770 | 27,590 | 19,550 |
| 15 | 20,520 | 19,330 | 18,240 | 13,310 | 8,900 | 5,840 | 24,970 | 40,820 | 42,360 | 36,420 | 27,250 | 19,350 |
| 16 | 20,420 | 19,270 | 18,110 | 13,080 | 8,770 | 5,840 | 26,360 | 41,080 | 42,150 | 36,230 | 26,980 | 19,270 |
| 17 | 20,330 | 19,280 | 17,990 | 12,860 | 8,640 | 5,810 | 27,810 | 41,250 | 42,100 | 36,030 | 26,710 | 19,140 |
| 18 | 20,240 | 19,330 | 17,840 | 12,690 | 8,480 | 5,790 | 29,300 | 41,420 | 41,960 | 35,810 | 26,420 | 19,040 |
| 19 | 20,270 | 19,300 | 17,690 | 12,320 | 8,310 | 5,790 | 31,350 | 41,450 | 41,790 | 35,630 | 26,080 | 18,930 |
| 20 | 20,300 | 19,260 | 17,540 | 12,060 | 8,160 | 5,790 | 32,730 | 41,450 | 41,600 | 35,470 | 25,750 | 18,870 |
| 21 | 20,240 | 19,220 | 17,380 | 11,800 | 8,040 | 5,780 | 34,010 | 41,500 | 41,350 | 35,310 | 25,420 | 18,770 |
| 22 | 20,160 | 19,170 | 17,220 | 11,540 | 7,900 | 5,780 | 36,270 | 41,840 | 40,990 | 34,950 | 25,090 | 18,690 |
| 23 | 20,040 | 19,120 | 17,060 | 11,290 | 7,800 | 5,770 | 37,500 | 42,460 | 40,660 | 34,570 | 24,760 | 18,590 |
| 24 | 19,940 | 19,120 | 16,880 | 11,060 | 7,700 | 5,780 | 38,700 | 42,880 | 40,490 | 34,130 | 24,470 | 18,460 |
| 25 | 19,840 | 19,080 | 16,700 | 10,820 | 7,590 | 5,900 | 38,700 | 43,020 | 40,320 | 33,780 | 24,200 | 18,380 |
| 26 | 19,890 | 19,060 | 16,530 | 10,540 | 7,500 | 5,930 | 39,330 | 43,020 | 40,150 | 33,560 | 23,910 | 18,210 |
| 27 | 19,910 | 19,010 | 16,350 | 10,290 | 7,410 | 5,990 | 39,490 | 43,060 | 40,120 | 33,280 | 23,660 | 18,100 |
| 28 | 19,920 | 18,970 | 16,140 | 10,540 | 7,310 | 6,080 | 40,120 | 43,060 | 40,030 | 33,000 | 23,400 | 18,020 |
| 29 | 19,850 | 18,930 | 15,940 | 10,260 | - | 6,080 | 40,820 | 43,060 | 39,950 | 32,760 | 23,160 | 17,940 |
| 30 | 19,840 | 18,890 | 15,730 | 10,490 | - | 6,080 | 41,080 | 43,060 | 39,850 | 32,580 | 22,910 | 17,880 |
| 31 | 19,820 | - | 15,520 | 10,440 | - | 6,320 | - | 43,320 | - | 32,130 | 22,670 | - |

Monthly elevation and contents, water year October 1941 to September 1942

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents during month (acre-feet) |
|-------------------------|------------------|----------------------|---|
| Oct. 1..... | 4,857.15 | 21,820 | -2,050 |
| Nov. 1..... | 4,855.36 | 19,770 | -880 |
| Dec. 1..... | 4,854.54 | 18,890 | -3,530 |
| Calendar year 1941..... | - | - | +12,530 |
| Jan. 1..... | 4,851.17 | 15,360 | -4,970 |
| Feb. 1..... | 4,845.58- | 10,390 | -3,260 |
| Mar. 1..... | 4,841.00 | 7,140 | -450 |
| Apr. 1..... | 4,840.28 | 6,690 | +34,030 |
| May 1..... | 4,870.54 | 40,720 | +2,660 |
| June 1..... | 4,872.00 | 43,580 | +3,840 |
| July 1..... | 4,869.75 | 39,740 | -7,970 |
| Aug. 1..... | 4,864.60 | 31,770 | -8,280 |
| Sept. 1..... | 4,857.70 | 22,490 | -5,200 |
| Oct. 1..... | 4,853.03 | 17,290 | - |
| Water year 1941-42..... | - | - | -4,530 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Ogden River below Pine View Dam, near Ogden, Utah

Location.- Water-stage recorder, lat. 41°15'17", long. 111°50'47", in NE¼SW¼ sec. 16, T. 6 N., R. 1 E., 1,500 feet downstream from Wheeler Creek, 2,000 feet downstream from Pine View Dam, and ½ miles northeast of Ogden.

Drainage area.- 321 square miles.

Records available.- October 1937 to September 1942, not including flow of Pine View pipe line. 1895-96, January 1904 to October 1912, October 1931 to September 1937 at same site, including flow of pipe line, published as "Ogden River near Ogden, Utah".

Extremes (regulated).- Maximum discharge during year, 718 second-feet May 26 (gage height, 4.23 feet); minimum, 1 second-foot or less for several days when reservoir gates were closed.

1937-42: Maximum discharge, 1,260 second-feet Apr. 25, 26, 1938 (gage height, 5.30 feet); minimum, less than one second-foot at times when reservoir gates were closed.

Remarks.- Records good. Flow regulated by Pine View Reservoir (see preceding page). Pine View pipe line diverts water above station for use in irrigation and power development. Diversions for irrigation and municipal supply above Pine View Reservoir.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 3 | 1 | 1 | a1 | 2 | 1 | 112 | 406 | 15 | 15 | 15 | 14 |
| 2 | 3 | 2 | 1 | a1 | 2 | 1 | 124 | 402 | 84 | 12 | 15 | 12 |
| 3 | 3 | 2 | 10 | a1 | 2 | 1 | 201 | 399 | 262 | 11 | 15 | 10 |
| 4 | 3 | 1 | 10 | a1 | 2 | 1 | 305 | 399 | 220 | 10 | 15 | 10 |
| 5 | 3 | 2 | 8 | a1 | 2 | 1 | 527 | 399 | 87 | 10 | 14 | 10 |
| 6 | 3 | 2 | 5 | a1 | 2 | 1 | 605 | 399 | 53 | 15 | 14 | 10 |
| 7 | 3 | 2 | 4 | a1 | 2 | 1 | 615 | 399 | 54 | 14 | 14 | 10 |
| 8 | 3 | 2 | 4 | a1 | 1 | 1 | 611 | 399 | 54 | 12 | 14 | 10 |
| 9 | 3 | 2 | 3 | a1 | 1 | 1 | 527 | 399 | 53 | 17 | 14 | 10 |
| 10 | 3 | 2 | 4 | a1 | 1 | 1 | 531 | 399 | 53 | 17 | 14 | 10 |
| 11 | 3 | 2 | 2 | a1 | b1 | 2 | 382 | 402 | 53 | 17 | 22 | 10 |
| 12 | 3 | 3 | 1 | a1 | b1 | 2 | 388 | 406 | 49 | 16 | 28 | 11 |
| 13 | 3 | 3 | 1 | b1 | b1 | 3 | 491 | 410 | 45 | 16 | 26 | 4 |
| 14 | 3 | 3 | 1 | b1 | b1 | 2 | 563 | 413 | 43 | 16 | 25 | 4 |
| 15 | 3 | 3 | 1 | 1 | b1 | 3 | 559 | 420 | 43 | 16 | 25 | 4 |
| 16 | 3 | 3 | 1 | 1 | b1 | 2 | 450 | 453 | 41 | 15 | 25 | 4 |
| 17 | 3 | 4 | 1 | 1 | b1 | 2 | 293 | 427 | 40 | 15 | 25 | 4 |
| 18 | 3 | 3 | 1 | 1 | b1 | 2 | 112 | 416 | 39 | 17 | 22 | 4 |
| 19 | 3 | 2 | 1 | 1 | b1 | 2 | 51 | 410 | 38 | 14 | 21 | 4 |
| 20 | 3 | 2 | 1 | 1 | b1 | 2 | 48 | 406 | 36 | 13 | 20 | 4 |
| 21 | 3 | 2 | a1 | 1 | b1 | 2 | 49 | 410 | 34 | 13 | 17 | 4 |
| 22 | 3 | 2 | a1 | 1 | b1 | 2 | 123 | 416 | 32 | 13 | 17 | 4 |
| 23 | 3 | 2 | a1 | 1 | b1 | 3 | 406 | 487 | 32 | 15 | 17 | 4 |
| 24 | 3 | 1 | a1 | 1 | b1 | 3 | 406 | 669 | 29 | 16 | 13 | 4 |
| 25 | 3 | 1 | a1 | 1 | 1 | 3 | 402 | 714 | 28 | 16 | 15 | 4 |
| 26 | 3 | 1 | a1 | 2 | 1 | 3 | 296 | 710 | 29 | 15 | 15 | 4 |
| 27 | 3 | 1 | a1 | 2 | 1 | 3 | 220 | 705 | 28 | 16 | 14 | 3 |
| 28 | 3 | 1 | a1 | 2 | 1 | 41 | 333 | 642 | 25 | 18 | 14 | 3 |
| 29 | 2 | 1 | a1 | 2 | - | 104 | 591 | 491 | 21 | 20 | 15 | 2 |
| 30 | 1 | 1 | a1 | 2 | - | 104 | 472 | 170 | 24 | 18 | 14 | 2 |
| 31 | 1 | - | a1 | 2 | - | 103 | - | 46 | - | 15 | 14 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 88 | 3 | 1 | 2.8 | 174 |
| November..... | 59 | 4 | 1 | 2.0 | 117 |
| December..... | 72 | 10 | 1 | 2.3 | 143 |
| Calendar year 1941..... | 9,430 | 481 | 0 | 25.8 | 18,700 |
| January..... | 37 | 2 | 1 | 1.2 | 73 |
| February..... | 35 | 2 | 1 | 1.2 | 69 |
| March..... | 403 | 104 | 1 | 13.0 | 799 |
| April..... | 10,791 | 615 | 48 | 380 | 21,400 |
| May..... | 13,523 | 714 | 46 | 459 | 27,000 |
| June..... | 1,678 | 282 | 21 | 55.9 | 3,330 |
| July..... | 1,463 | 20 | 10 | 14.9 | 918 |
| August..... | 548 | 28 | 13 | 17.7 | 1,090 |
| September..... | 193 | 14 | 2 | 6.4 | 383 |
| Water year 1941-42..... | 27,990 | 714 | 1 | 76.7 | 55,500 |

a No gage-height record; discharge interpolated.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Jordan River at Narrows, near Lehi, Utah

Location.- Water-stage recorders, lat. 40°26'40", long. 111°55'20", in SE¼ sec. 26, T. 4 S., R. 1 W., at Narrows 5½ miles northwest of Lehi and 7½ miles downstream from Utah Lake.

Drainage area.- 2,960 square miles (revised), including 280 square miles in Cedar Valley.

Records available.- October 1934 to September 1942. May to December 1904 and July 1913 to September 1934, at outlet of Utah Lake, 7½ miles upstream.

Average discharge.- 29 years (1913-42), 369 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 807 second-feet July 8; minimum daily, 1 second-foot on many days.
1913-42: Maximum daily discharge, 1,370 second-feet June 8, 1922 (gage height, 7.78 feet, site and datum then in use); no flow at times when gates were closed.

Remarks.- Records excellent. They represent combined flow of Jordan River, Utah & Salt Lake Canal, and East Jordan Canal. Flow completely regulated by gates and pumps at outlet of Utah Lake, pumps at Pelican Point, and diversion dam at Narrows.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 360 | 20 | 24 | 22 | 1 | 1 | 2 | 10 | 612 | 712 | 784 | 746 |
| 2 | 288 | 20 | 23 | 25 | 1 | 1 | 3 | 10 | 615 | 738 | 776 | 745 |
| 3 | 304 | 21 | 22 | 25 | 1 | 1 | 2 | 10 | 628 | 769 | 775 | 743 |
| 4 | 302 | 21 | 22 | 24 | 1 | 1 | 2 | 10 | 635 | 766 | 789 | 736 |
| 5 | 147 | 21 | 22 | 24 | 1 | 1 | 2 | 65 | 646 | 759 | 776 | 727 |
| 6 | 32 | 22 | 22 | 24 | 1 | 1 | 2 | 127 | 640 | 773 | 767 | 748 |
| 7 | 22 | 22 | 22 | 24 | 1 | 1 | 2 | 179 | 645 | 787 | 770 | 747 |
| 8 | 22 | 22 | 22 | 24 | 1 | 1 | 2 | 267 | 648 | 807 | 769 | 746 |
| 9 | 22 | 22 | 22 | 21 | 1 | 1 | 2 | 316 | 645 | 806 | 773 | 745 |
| 10 | 22 | 22 | 22 | 15 | 1 | 1 | 2 | 374 | 616 | 802 | 784 | 734 |
| 11 | 22 | 22 | 22 | 10 | 1 | 1 | 4 | 421 | 594 | 797 | 775 | 738 |
| 12 | 22 | 22 | 22 | 5 | 1 | 1 | 5 | 409 | 664 | 792 | 765 | 734 |
| 13 | 22 | 22 | 22 | 1 | 1 | 1 | 5 | 409 | 679 | 794 | 767 | 740 |
| 14 | 22 | 22 | 22 | 1 | 1 | 1 | 5 | 453 | 668 | 803 | 755 | 738 |
| 15 | 22 | 22 | 21 | 1 | 1 | 1 | 5 | 498 | 676 | 765 | 757 | 737 |
| 16 | 20 | 22 | 18 | 1 | 1 | 1 | 4 | 435 | 681 | 721 | 757 | 728 |
| 17 | 20 | 22 | 18 | 1 | 1 | 1 | 5 | 355 | 683 | 745 | 758 | 637 |
| 18 | 20 | 22 | 18 | 1 | 1 | 1 | 6 | 374 | 681 | 773 | 759 | 516 |
| 19 | 20 | 22 | 18 | 1 | 1 | 1 | 6 | 370 | 662 | 785 | 769 | 698 |
| 20 | 20 | 22 | 18 | 1 | 1 | 1 | 6 | 397 | 665 | 780 | 762 | 707 |
| 21 | 20 | 22 | 19 | 1 | 1 | 1 | 6 | 437 | 668 | 797 | 753 | 702 |
| 22 | 20 | 22 | 21 | 1 | 1 | 1 | 12 | 491 | 663 | 796 | 749 | 660 |
| 23 | 20 | 23 | 23 | 1 | 1 | 1 | 20 | 562 | 673 | 795 | 752 | 619 |
| 24 | 20 | 24 | 24 | 1 | 1 | 1 | 20 | 598 | 675 | 797 | 745 | 646 |
| 25 | 20 | 24 | 24 | 1 | 1 | 1 | 19 | 634 | 675 | 795 | 607 | 598 |
| 26 | 20 | 23 | 24 | 1 | 1 | 1 | 15 | 662 | 642 | 781 | 749 | 586 |
| 27 | 20 | 23 | 26 | 1 | 1 | 1 | 60 | 676 | 651 | 765 | 760 | 586 |
| 28 | 20 | 23 | 27 | 1 | 1 | 2 | 32 | 634 | 659 | 775 | 876 | 616 |
| 29 | 20 | 24 | 27 | 1 | - | 2 | 10 | 634 | 659 | 792 | 822 | 631 |
| 30 | 21 | 24 | 25 | 1 | - | 2 | 10 | 614 | 681 | 797 | 616 | 576 |
| 31 | 20 | - | 24 | 1 | - | 2 | - | 617 | - | 791 | 715 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,952 | 360 | 20 | 63.0 | 3,870 |
| November..... | 665 | 24 | 20 | 22.2 | 1,320 |
| December..... | 686 | 27 | 18 | 22.1 | 1,360 |
| Calendar year 1941..... | 87,272 | 754 | 1 | 239 | 173,100 |
| January..... | 262 | 25 | 1 | 8.5 | 520 |
| February..... | 28 | 1 | 1 | 1 | 56 |
| March..... | 35 | 2 | 1 | 1.1 | 69 |
| April..... | 276 | 60 | 2 | 9.2 | 547 |
| May..... | 12,038 | 676 | 10 | 388 | 23,880 |
| June..... | 19,607 | 683 | 594 | 654 | 38,890 |
| July..... | 24,155 | 807 | 712 | 779 | 47,310 |
| August..... | 23,121 | 784 | 607 | 746 | 45,860 |
| September..... | 20,610 | 743 | 516 | 687 | 40,880 |
| Water year 1941-42..... | 103,435 | 807 | 1 | 283 | 205,162 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

JORDAN RIVER BASIN

Spanish Fork at Thistle, Utah

Location.- Water-stage recorder, lat. 40°00', long. 111°30', in SW $\frac{1}{4}$ sec. 28, T. 9 S., R. 4 E., at Thistle, 600 feet downstream from confluence of Soldier Fork and Thistle Creek and $2\frac{1}{2}$ miles upstream from Diamond Fork.

Drainage area.- 490 square miles.

Records available.- January 1908 to September 1925, October 1936 to September 1942 in reports of Geological Survey. January 1933 to September 1942 in reports of Spanish Fork water commissioner.

Average discharge.- 26 years (1908-25, 1935-42), 98.7 second-feet.

Extremes.- Maximum discharge during year, 461 second-feet May 27 (gage height, 3.87 feet); minimum daily, 25 second-feet Jan. 5, during ice affected period.
1908-25, 1933-42: Maximum discharge observed, 1,250 second-feet May 26, 1922; minimum observed, 10 second-feet Sept. 17, 22, 25, and Oct. 25, 1934.

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

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 39 | 51 | 46 | b40 | 54 | 50 | 183 | 232 | 265 | 83 | 41 | 36 |
| 2 | 42 | 59 | 47 | b38 | 54 | 54 | 165 | 232 | 254 | 78 | 43 | 34 |
| 3 | 42 | 54 | 52 | b36 | 54 | 64 | 190 | 222 | 243 | 75 | 41 | 37 |
| 4 | 41 | 52 | 59 | b30 | 51 | 56 | 222 | 222 | 238 | 74 | 41 | 32 |
| 5 | 44 | 51 | *52 | b25 | 54 | 62 | 227 | 214 | 217 | 74 | 41 | 34 |
| 6 | 44 | 51 | 44 | b30 | 53 | 65 | 190 | 217 | 204 | 76 | 40 | 40 |
| 7 | 41 | 48 | 45 | b40 | 52 | 52 | 167 | 235 | 187 | 75 | 41 | 37 |
| 8 | 41 | 48 | *44 | b45 | 53 | 56 | 209 | 268 | a176 | 66 | 38 | 39 |
| 9 | 40 | 50 | 45 | 46 | 48 | 74 | 240 | 310 | a165 | 64 | 38 | 40 |
| 10 | 42 | 48 | 52 | 46 | 41 | 79 | 268 | 351 | a155 | 71 | 37 | 41 |
| 11 | 43 | 47 | 52 | 46 | 43 | 87 | 279 | 366 | a148 | 55 | 43 | 45 |
| 12 | 43 | 48 | 51 | 46 | 51 | 118 | 304 | 372 | 143 | 55 | 46 | 44 |
| 13 | 52 | 48 | 52 | 48 | 43 | 136 | 350 | 360 | 132 | 56 | 40 | 41 |
| 14 | 47 | 48 | 52 | 47 | 43 | 120 | 390 | 331 | 130 | 56 | 35 | 40 |
| 15 | 47 | 48 | 51 | 48 | 44 | 89 | 393 | 313 | 127 | 54 | 35 | 42 |
| 18 | 50 | 48 | 50 | 51 | 45 | 80 | 363 | 328 | 120 | 61 | 39 | 40 |
| 17 | 50 | 56 | 51 | 51 | 43 | 76 | 366 | 307 | 113 | 96 | 41 | 38 |
| 18 | 50 | 56 | 48 | 51 | b35 | 74 | 336 | 290 | 111 | 71 | 40 | 35 |
| 19 | 50 | 52 | 47 | 47 | b36 | 71 | 293 | 279 | 108 | 58 | 35 | 39 |
| 20 | 51 | 40 | 51 | 46 | b38 | 62 | 284 | 282 | 106 | 54 | 34 | 39 |
| 21 | 61 | 35 | 52 | 48 | b45 | 71 | 299 | 310 | 105 | 56 | 37 | 36 |
| 22 | 56 | 39 | 50 | 48 | b52 | 100 | 354 | 354 | 104 | 58 | 37 | 36 |
| 23 | 53 | 34 | 41 | 51 | *47 | 178 | 381 | 402 | 100 | 56 | 41 | 36 |
| 24 | 56 | 34 | 46 | 51 | 51 | 207 | 351 | 430 | 98 | 58 | 45 | 34 |
| 25 | 58 | 37 | 48 | 51 | 47 | 111 | 322 | 430 | 94 | 58 | 58 | 35 |
| 26 | 55 | 38 | 42 | 52 | 48 | 92 | 296 | 442 | 94 | 58 | 44 | 34 |
| 27 | 51 | 39 | b38 | 53 | 43 | 86 | 268 | 439 | 94 | 54 | 46 | 36 |
| 28 | 64 | 41 | 41 | 56 | 50 | 105 | 273 | 390 | 93 | 53 | 46 | 37 |
| 29 | 60 | 43 | 47 | 54 | - | 132 | 248 | 348 | 93 | 50 | 44 | 37 |
| 30 | 55 | 45 | 47 | 52 | - | 151 | 235 | 313 | 87 | 47 | 42 | 37 |
| 31 | 53 | - | 47 | 51 | - | 172 | - | 290 | - | 44 | 43 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,518 | 64 | 39 | 49.0 | 3,010 |
| November..... | 1,387 | 59 | 34 | 46.2 | 2,750 |
| December..... | 1,490 | 59 | 38 | 48.1 | 2,960 |
| Calendar year 1941..... | 28,570 | 445 | 28 | 78.3 | 56,660 |
| January..... | 1,424 | 56 | 25 | 45.9 | 2,820 |
| February..... | 1,322 | 54 | 35 | 47.2 | 2,620 |
| March..... | 2,930 | 207 | 50 | 94.5 | 5,610 |
| April..... | 8,456 | 393 | 165 | 282 | 16,770 |
| May..... | 9,879 | 442 | 214 | 319 | 19,590 |
| June..... | 4,303 | 255 | 87 | 143 | 8,530 |
| July..... | 1,944 | 96 | 44 | 62.7 | 3,860 |
| August..... | 1,271 | 58 | 34 | 41.0 | 2,520 |
| September..... | 1,131 | 45 | 34 | 37.7 | 2,240 |
| Water year 1941-42..... | 37,055 | 442 | 25 | 102 | 73,480 |

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records at Castilla.

b Stage discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Spanish Fork at Castilla, Utah

Location (revised).— Water-stage recorder, lat. 40°03'00", long. 111°32'45", in SW¼ sec. 12, T. 9 S., R. 3 E., 600 feet upstream from outlet of Cold Springs, 1 mile upstream from diversion dam of Bureau of Reclamation, 1½ miles northwest of Castilla, and 3 miles downstream from Diamond Fork.

Drainage area.— 670 square miles.

Records available.— May 1919 to September 1925, October 1936 to September 1942 in reports of Geological Survey. January 1933 to September 1942 in reports of Spanish Fork water commissioner.

Average discharge.— 15 years (1919-25, 1933-42), 218 second-feet.

Extremes.— Maximum discharge during year, 627 second-feet May 26 (gage height, 4.72 feet); minimum, 32 second-feet Jan. 6, 1919-25, 1933-42; Maximum daily discharge, 1,520 second-feet May 22, 1920; minimum, 25 second-feet Feb. 18, 1938 and Jan. 19, 1939.

Remarks.— Records good. Several small diversions above station for irrigation. Flow is materially increased by water diverted by tunnel from Strawberry Reservoir (capacity, 250,000 acre-feet) in Colorado River Basin into Diamond Fork of Spanish Fork for irrigation of lands in Jordan River Basin.

Discharge, in second-feet, water year October 1940 to September 1941

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 130 | 81 | 71 | 58 | 82 | 74 | 276 | 329 | 332 | 450 | 225 | 218 |
| 2 | 147 | 98 | 71 | 44 | 82 | 80 | 286 | 345 | 377 | 484 | 225 | 250 |
| 3 | 149 | 90 | 78 | 54 | 81 | 98 | 308 | 317 | 432 | 504 | 235 | 271 |
| 4 | 149 | 84 | 84 | 48 | 78 | 90 | 351 | 314 | 532 | 443 | 245 | 271 |
| 5 | 157 | 82 | 81 | 40 | 82 | 93 | 357 | 308 | 512 | 429 | 263 | 256 |
| 6 | 130 | 81 | 67 | 38 | 81 | 106 | 308 | 308 | 492 | 450 | 240 | 227 |
| 7 | 104 | 80 | 70 | 53 | 81 | 77 | 310 | 326 | 488 | 473 | 225 | 197 |
| 8 | 87 | 77 | 67 | 64 | 81 | 88 | 335 | 371 | 512 | 508 | 232 | 184 |
| 9 | 84 | 77 | 68 | 70 | 74 | 106 | 360 | 422 | 465 | 524 | 253 | 204 |
| 10 | 82 | 75 | 78 | 70 | 67 | 116 | 390 | 465 | 462 | 465 | 255 | 253 |
| 11 | 81 | 75 | 78 | 66 | 67 | 125 | 395 | 484 | 458 | 415 | 269 | 288 |
| 12 | 90 | 75 | 75 | 70 | 77 | 163 | 422 | 500 | 429 | 422 | 303 | 263 |
| 13 | 99 | 75 | 78 | 71 | 67 | 186 | 485 | 508 | 377 | 415 | 280 | 208 |
| 14 | 82 | 75 | 77 | 70 | 66 | 169 | 528 | 469 | 345 | 462 | 245 | 163 |
| 15 | 81 | 75 | 75 | 71 | 64 | 130 | 541 | 447 | 326 | 450 | 245 | 148 |
| 16 | 81 | 75 | 75 | 74 | 70 | 121 | 500 | 492 | 314 | 443 | 258 | 146 |
| 17 | 81 | 86 | 80 | 75 | 66 | 117 | 524 | 450 | 377 | 436 | 271 | 145 |
| 18 | 80 | 87 | 75 | 75 | 54 | 114 | 486 | 422 | 454 | 285 | 250 | 141 |
| 19 | 80 | 82 | 75 | 70 | 54 | 110 | 418 | 401 | 484 | 242 | 285 | 141 |
| 20 | 81 | 66 | 74 | 66 | 58 | 96 | 404 | 401 | 465 | 245 | 306 | 139 |
| 21 | 93 | 59 | 77 | 67 | 68 | 107 | 415 | 440 | 422 | 242 | 323 | 134 |
| 22 | 84 | 68 | 73 | 74 | 75 | 141 | 496 | 504 | 411 | 235 | 306 | 129 |
| 23 | 81 | 55 | 68 | 78 | 70 | 229 | 545 | 570 | 411 | 232 | 311 | 129 |
| 24 | 84 | 57 | 68 | 77 | 66 | 269 | 494 | 600 | 443 | 232 | 303 | 129 |
| 25 | 86 | 60 | 71 | 80 | 75 | 149 | 440 | 583 | 481 | 255 | 300 | 137 |
| 26 | 81 | 64 | 60 | 80 | 70 | 123 | 418 | 596 | 500 | 250 | 240 | 145 |
| 27 | 78 | 66 | 54 | 80 | 74 | 114 | 398 | 574 | 458 | 232 | 218 | 145 |
| 28 | 98 | 68 | 65 | 86 | 77 | 136 | 411 | 484 | 418 | 269 | 218 | 145 |
| 29 | 94 | 68 | 70 | 84 | - | 177 | 371 | 425 | 447 | 297 | 218 | 145 |
| 30 | 86 | 70 | 70 | 80 | - | 217 | 339 | 391 | 440 | 274 | 213 | 148 |
| 31 | 82 | - | 71 | 78 | - | 242 | - | 364 | - | 237 | 220 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 3,002 | 157 | 78 | 96.8 | 5,950 |
| November..... | 2,235 | 98 | 55 | 74.4 | 4,430 |
| December..... | 2,240 | 94 | 54 | 72.2 | 4,440 |
| Calendar year 1941..... | 63,658 | 566 | 44 | 174 | 126,300 |
| January..... | 2,113 | 85 | 38 | 68.2 | 4,190 |
| February..... | 2,007 | 82 | 54 | 71.7 | 3,980 |
| March..... | 4,153 | 269 | 74 | 134 | 8,240 |
| April..... | 12,304 | 545 | 276 | 410 | 24,400 |
| May..... | 13,610 | 600 | 308 | 439 | 27,000 |
| June..... | 13,064 | 532 | 314 | 435 | 25,910 |
| July..... | 11,300 | 524 | 232 | 365 | 22,410 |
| August..... | 8,010 | 323 | 213 | 268 | 15,890 |
| September..... | 5,498 | 288 | 129 | 183 | 10,910 |
| Water year 1941-42..... | 79,534 | 600 | 38 | 218 | 157,800 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Spanish Fork near Lake Shore, Utah

Location.- Water-stage recorder and low-water wooden control, lat. 40°10', long. 111°44', in SE¼ sec. 32, T. 7 S., R. 2 E., 400 feet downstream from bridge, 1 mile upstream from mouth, and 2.5 miles north of Lake Shore.

Drainage area.- 700 square miles.

Records available.- January 1938 to September 1942. December 1903 to July 1907 and March 1909 to September 1925 at site 3 miles upstream.

Average discharge.- 21 years (1904-6, 1909-19, 1920-25, 1938-42) 96.3 second-feet.

Extremes.- Maximum discharge during year, 382 second-feet Apr. 12 (gage height, 9.17 feet); practically no flow during latter part of irrigation season.
1903-7, 1909-25, 1938-42: Maximum discharge observed, 1,100 second-feet May 7, 1922; practically no flow during latter part of irrigation season for most years.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Flow affected by many diversions for irrigation and hydroelectric power plant. During the latter part of the irrigation season only waste and return waters pass the gage. Station below all diversions.

Cooperation.- Fourteen discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1 | | 1 | 77 | 67 | 77 | 100 | 87 | 287 | 217 | 14 | 1 | 1 |
| 2 | | 1 | 87 | 65 | a65 | 101 | 98 | 280 | 264 | 9 | 1 | |
| 3 | | 1 | 94 | 66 | a60 | 103 | 109 | a290 | 269 | 4 | 1 | |
| 4 | | 1 | 85 | 98 | a55 | 102 | 103 | a310 | 252 | 3 | 1 | |
| 5 | | 2 | 76 | 79 | a50 | 106 | 106 | a320 | 234 | 3 | 1 | |
| 6 | | 2 | 71 | 70 | a55 | 104 | 128 | a300 | 238 | 3 | 1 | |
| 7 | | 3 | 72 | 71 | a50 | 102 | 92 | a300 | 225 | 2 | 1 | |
| 8 | | 5 | 75 | 66 | a70 | 105 | 100 | a315 | 239 | 1 | 1 | |
| 9 | | 6 | 76 | 67 | a80 | 98 | 120 | a350 | 245 | 1 | 1 | |
| 10 | | 18 | 63 | 71 | a80 | 90 | 130 | a350 | 272 | 2 | 1 | |
| 11 | | 10 | 73 | 78 | a78 | 81 | 137 | 358 | 286 | 2 | 1 | |
| 12 | | 6 | 70 | 79 | a80 | 94 | 158 | 374 | 268 | 2 | 1 | |
| 13 | | 26 | 74 | 85 | a90 | 84 | 202 | 377 | 250 | 2 | 1 | |
| 14 | | 19 | 72 | 83 | a85 | 82 | 206 | 375 | 219 | 3 | 1 | |
| 15 | | 5 | 71 | 79 | 85 | 77 | 146 | 375 | a200 | 2 | 1 | |
| 16 | | 19 | 75 | 75 | 91 | 82 | 126 | 366 | a180 | 1 | 1 | |
| 17 | | 35 | 77 | 77 | 92 | 83 | 115 | a350 | a180 | 2 | 1 | |
| 18 | | 68 | 95 | 77 | 92 | 73 | a118 | a350 | 170 | 2 | 16 | |
| 19 | | 61 | 86 | 75 | 88 | a66 | a115 | a325 | 144 | 1 | 1 | |
| 20 | | 63 | 75 | 77 | 92 | a65 | a105 | a300 | 119 | 1 | 2 | |
| 21 | | 77 | 57 | 86 | 98 | 87 | a115 | a300 | 95 | 1 | 1 | |
| 22 | | 82 | 59 | 81 | a100 | 88 | 130 | 325 | 126 | 1 | 1 | |
| 23 | | 72 | 56 | a65 | 97 | 85 | 198 | 349 | 172 | 1 | 1 | |
| 24 | | 72 | 55 | 59 | 98 | 77 | 270 | 330 | 176 | 1 | 1 | |
| 25 | | 81 | 58 | 77 | 100 | 92 | 193 | a300 | 177 | 1 | 1 | |
| 26 | | 80 | 58 | 77 | 100 | 81 | a135 | a270 | 160 | 2 | 1 | |
| 27 | | 70 | 59 | a65 | 105 | 91 | a110 | a250 | 162 | 1 | 1 | |
| 28 | | 86 | 61 | a65 | 109 | 92 | a130 | a250 | 122 | 1 | 1 | |
| 29 | | 93 | 63 | 71 | 113 | - | 175 | a220 | a60 | 1 | 2 | |
| 30 | | 83 | 65 | 81 | 102 | - | 216 | 202 | a30 | 2 | 1 | |
| 31 | | 75 | - | 88 | 98 | - | 240 | - | 16 | - | 1 | |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,212 | 93 | 1 | 39.1 | 2,400 |
| November..... | 2,130 | 95 | 55 | 71.0 | 4,220 |
| December..... | 2,328 | 98 | 85 | 75.1 | 4,620 |
| Calendar year 1941..... | 18,933.1 | 187 | .5 | 51.9 | 37,540 |
| January..... | 2,623 | 113 | 50 | 84.6 | 5,200 |
| February..... | 2,489 | 105 | 65 | 88.9 | 4,940 |
| March..... | 4,418 | 270 | 87 | 143 | 8,760 |
| April..... | 9,408 | 377 | 202 | 314 | 18,660 |
| May..... | 5,758 | 298 | 16 | 186 | 11,420 |
| June..... | 72 | 14 | 1 | 2.4 | 143 |
| July..... | 48 | 1.6 | 1 | 1.5 | 95 |
| August..... | 31 | - | - | 1 | 61 |
| September..... | 30 | - | - | 1 | 60 |
| Water year 1941-42..... | 30,547 | 377 | - | 83.7 | 60,580 |

a No gage-height record; discharge computed on basis of records for station at Castilla and weather records, except July 23, 24, which were interpolated, and Aug. 2 to Sept. 30 which were based on seepage flow only, and water commissioners notes.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Diamond Fork near Thistle, Utah

Location.- Water-stage recorder, lat. 40°02'15", long. 111°29'20", in NW¼ sec. 16, T. 9 S., R. 4 E., 1½ miles upstream from mouth, 3 miles north of Thistle, and 3½ miles downstream from Little Diamond Creek.

Drainage area.- 155 square miles.

Records available.- April 1940 to September 1942. December 1907 to September 1917 at site 1 1/3 miles downstream.

Extremes.- Maximum discharge during year, 470 second-feet July 9 (gage height, 3.07 feet); minimum daily, 8 second-feet Jan. 5 during ice affected period.
1907-17, 1940-42: Maximum discharge observed, 735 second-feet May 9, 1909; minimum daily, 2 second-feet Dec. 15, 16, 1940, Jan. 4, 5, 1941.

Remarks.- Records good except those for periods of ice effect, which are fair. Some small diversions above station for irrigation. Flow is materially increased by water diverted by tunnel from Strawberry Reservoir in Colorado River Basin (capacity, 250,000 acre-feet) for irrigation of lands in the Jordan River Basin.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 87 | 17 | 13 | 12 | 15 | 13 | 50 | 87 | 85 | 373 | 187 | 188 |
| 2 | 86 | 30 | 13 | 11 | 15 | 14 | 60 | 87 | 147 | 408 | 164 | 189 |
| 3 | 88 | 24 | 14 | 10 | 15 | 14 | 71 | 82 | 192 | 418 | 180 | 209 |
| 4 | 87 | 20 | 24 | 9 | 14 | 14 | 83 | 83 | 283 | 351 | 187 | 212 |
| 5 | 90 | 19 | *17 | 8 | 15 | 15 | 92 | 83 | 306 | 344 | 209 | 192 |
| 6 | 63 | 18 | 16 | 9 | 15 | 14 | 82 | 83 | 312 | 366 | 185 | 162 |
| 7 | 46 | 17 | 17 | 10 | 15 | 14 | 90 | 88 | 329 | 379 | 171 | 154 |
| 8 | 36 | 17 | *16 | 11 | 15 | 15 | 99 | 95 | 357 | 442 | 182 | 116 |
| 9 | 24 | 16 | 14 | 11 | 14 | 15 | 101 | 108 | 326 | 452 | 199 | 147 |
| 10 | 19 | 16 | 15 | 12 | 14 | 17 | 118 | 118 | 323 | 399 | 204 | 189 |
| 11 | 19 | 16 | 15 | 12 | 14 | 19 | 116 | 122 | 326 | 357 | 209 | 206 |
| 12 | 36 | 16 | 14 | 12 | 14 | 20 | 128 | 126 | 300 | 373 | 242 | 187 |
| 13 | 40 | 17 | 14 | 11 | 13 | 21 | 134 | 122 | 260 | 357 | 227 | 136 |
| 14 | 21 | 18 | 14 | 11 | 13 | 20 | 145 | 112 | 224 | 366 | 194 | 104 |
| 15 | 19 | 17 | 14 | 11 | 12 | *15 | 141 | 110 | 202 | 357 | 199 | 97 |
| 16 | 19 | 18 | 14 | 12 | 12 | 16 | 130 | 118 | 204 | 341 | 206 | 97 |
| 17 | 17 | 24 | 14 | 12 | 11 | 19 | 136 | 112 | 286 | 297 | 216 | 97 |
| 18 | 16 | 21 | 12 | 11 | 10 | 17 | 128 | 104 | 363 | 180 | 222 | 97 |
| 19 | 16 | 16 | 14 | 10 | 9 | 16 | 114 | 99 | 392 | 171 | 237 | 97 |
| 20 | 17 | 17 | 17 | 11 | 10 | 15 | 110 | 99 | 373 | 178 | 256 | 97 |
| 21 | 24 | 16 | 15 | 15 | 11 | 14 | 112 | 104 | 326 | 171 | 267 | 92 |
| 22 | 20 | 17 | 14 | 14 | 12 | 19 | 128 | 120 | 326 | 162 | 250 | 80 |
| 23 | 18 | 14 | 13 | 14 | 12 | 22 | 150 | 126 | 323 | 160 | 248 | 71 |
| 24 | 19 | 12 | 14 | 14 | 12 | 23 | 118 | 126 | 366 | 160 | 235 | 71 |
| 25 | 20 | 12 | 15 | 16 | 11 | 21 | 110 | 122 | 402 | 180 | 224 | 88 |
| 26 | 18 | 13 | 14 | 16 | 11 | 19 | 103 | 122 | 412 | 178 | 178 | 101 |
| 27 | 17 | 14 | 12 | 15 | 12 | 17 | 92 | 180 | 373 | 167 | 158 | 99 |
| 28 | 28 | 15 | 13 | 17 | 12 | 20 | 103 | 106 | 329 | 194 | 160 | 97 |
| 29 | 22 | 15 | 14 | 15 | - | 24 | 92 | 99 | 373 | 237 | 156 | 97 |
| 30 | 19 | 14 | 14 | 14 | - | 29 | 85 | 94 | 361 | 209 | 151 | 104 |
| 31 | *17 | - | 14 | 14 | - | 36 | - | 90 | - | 180 | 160 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,065 | 90 | 16 | 34.4 | 2,110 |
| November..... | 618 | 30 | 12 | 17.3 | 1,030 |
| December..... | 452 | 24 | 12 | 14.6 | 897 |
| Calendar year 1941 | 30,841 | 555 | 2 | 84.5 | 61,160 |
| January..... | 380 | 17 | 8 | 12.3 | 764 |
| February..... | 353 | 15 | 9 | 12.6 | 710 |
| March..... | 668 | 36 | 13 | 18.5 | 1,130 |
| April..... | 3,199 | 143 | 50 | 107 | 6,350 |
| May..... | 3,267 | 126 | 82 | 105 | 6,480 |
| June..... | 9,161 | 412 | 85 | 305 | 18,170 |
| July..... | 8,927 | 452 | 160 | 297 | 17,710 |
| August..... | 6,243 | 267 | 151 | 201 | 12,360 |
| September..... | 3,823 | 212 | 71 | 127 | 7,560 |
| Water year 1941-42 | 37,961 | 462 | 8 | 104 | 75,300 |

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 20-30, Dec. 6-9, Dec. 23 to Jan. 18, Feb. 11 to Mar. 9.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Provo River at Vivian Park, Utah

Location.- Water-stage recorder, lat. 40°22', long. 111°34', in NW¼ sec. 25, T. 5 S., R. 3 E., half a mile downstream from North Fork, 3,500 feet northeast of Vivian Park, and three-quarters of a mile upstream from South Fork.

Drainage area.- 600 square miles.

Records available.- November 1911 to September 1942.

Average discharge.- 30 years, 348 second-feet (since 1932 flow includes that of Weber-Provo diversion canal).

Extremes.- Maximum discharge during year, 955 second-feet (regulated) May 29; minimum daily, 156 second-feet Sept. 30.
1911-42: Maximum discharge observed, 3,180 second-feet July 11, 1921; minimum, 49 second-feet July 17, 1934.

Remarks.- Records excellent except those for period Apr. 20 to June 20, which are good. Station is below diversions for irrigation in Heber Valley and above those in vicinity of Provo. Flow regulated by Deer Creek Reservoir and small lakes at headwaters that serve as reservoirs. Records include flow of Weber-Provo diversion canal.

Cooperation.- Records collected in collaboration with the Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1949

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 185 | 195 | 215 | 289 | 226 | 219 | 320 | 907 | 791 | 465 | 240 | 206 |
| 2 | 187 | 210 | 240 | 289 | 228 | 217 | 323 | 902 | 791 | 433 | 243 | 195 |
| 3 | 215 | 202 | 270 | 297 | 226 | 217 | 332 | 885 | 796 | 437 | 247 | 197 |
| 4 | 186 | 200 | 270 | 291 | 226 | 217 | 351 | 899 | 796 | 440 | 245 | 197 |
| 5 | 182 | 200 | 262 | 289 | 226 | 215 | 354 | 892 | 796 | 444 | 240 | 196 |
| 6 | 160 | 200 | 260 | 294 | 224 | 215 | 354 | 433 | 800 | 420 | 240 | 197 |
| 7 | 158 | 202 | 260 | 300 | 226 | 215 | 357 | 430 | 809 | 383 | 238 | 197 |
| 8 | 158 | 206 | 260 | 289 | 226 | 212 | 363 | 433 | 809 | 344 | 240 | 196 |
| 9 | 158 | 204 | 257 | 283 | 226 | 215 | 357 | 440 | 724 | 323 | 243 | 197 |
| 10 | 182 | 204 | 260 | 294 | 243 | 217 | 347 | 444 | 625 | 306 | 240 | 196 |
| 11 | 184 | 206 | 260 | 294 | 257 | 224 | 351 | 444 | 672 | 300 | 243 | 200 |
| 12 | 187 | 203 | 262 | 294 | 257 | 233 | 357 | 440 | 680 | 297 | 243 | 200 |
| 13 | 169 | 206 | 267 | 291 | 257 | 240 | 350 | 437 | 676 | 297 | 240 | 197 |
| 14 | 185 | 206 | 267 | 294 | 257 | 247 | 357 | 440 | 672 | 294 | 238 | 197 |
| 15 | 187 | 208 | 267 | 294 | 260 | 257 | 354 | 440 | 672 | 289 | 238 | 196 |
| 16 | 187 | 210 | 265 | 291 | 262 | 257 | 354 | 447 | 672 | 283 | 235 | 195 |
| 17 | 187 | 222 | 267 | 294 | 262 | 255 | 354 | 440 | 680 | 280 | 238 | 195 |
| 18 | 169 | 215 | 267 | 297 | 255 | 255 | 347 | 437 | 536 | 273 | 240 | 193 |
| 19 | 169 | 204 | 270 | 300 | 260 | 255 | 351 | 440 | 568 | 273 | 240 | 181 |
| 20 | 173 | 193 | 273 | 280 | 260 | 252 | 393 | 426 | 540 | 270 | 243 | 169 |
| 21 | 173 | 193 | 273 | 238 | 257 | 252 | 447 | 413 | 517 | 260 | 247 | 169 |
| 22 | 173 | 193 | 270 | 224 | 262 | 252 | 572 | 447 | 513 | 257 | 247 | 169 |
| 23 | 173 | 193 | 267 | 222 | 267 | 257 | 637 | 494 | 513 | 250 | 238 | 171 |
| 24 | 175 | 202 | 267 | 224 | 245 | 275 | 738 | 513 | 517 | 243 | 228 | 171 |
| 25 | 183 | 212 | 275 | 226 | 240 | 305 | 786 | 521 | 525 | 243 | 226 | 171 |
| 26 | 191 | 212 | 278 | 226 | 235 | 303 | 791 | 525 | 529 | 243 | 224 | 173 |
| 27 | 193 | 212 | 276 | 226 | 224 | 305 | 809 | 608 | 521 | 240 | 219 | 176 |
| 28 | 200 | 212 | 278 | 231 | 222 | 305 | 837 | 532 | 529 | 240 | 219 | 165 |
| 29 | 200 | 212 | 283 | 226 | - | 308 | 818 | 950 | 525 | 240 | 219 | 158 |
| 30 | 193 | 212 | 283 | 226 | - | 308 | 864 | 794 | 521 | 240 | 219 | 156 |
| 31 | 193 | - | 286 | 226 | - | 311 | - | 738 | - | 238 | 219 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 5,434 | 215 | 158 | 175 | 10,780 |
| November..... | 6,164 | 222 | 193 | 205 | 12,210 |
| December..... | 8,257 | 226 | 215 | 260 | 16,380 |
| Calendar year 1941..... | 104,360 | 846 | 59 | 286 | 207,000 |
| January..... | 8,339 | 300 | 222 | 269 | 16,540 |
| February..... | 6,806 | 262 | 222 | 243 | 13,600 |
| March..... | 7,815 | 311 | 212 | 262 | 15,500 |
| April..... | 14,335 | 864 | 320 | 478 | 28,430 |
| May..... | 17,569 | 950 | 413 | 566 | 34,830 |
| June..... | 19,195 | 809 | 513 | 640 | 35,070 |
| July..... | 9,649 | 465 | 238 | 308 | 18,940 |
| August..... | 7,319 | 247 | 219 | 236 | 14,520 |
| September..... | 5,569 | 206 | 156 | 186 | 11,050 |
| Water year 1941-42..... | 116,331 | 950 | 156 | 319 | 230,000 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Provo River at Provo, Utah

Location.- Water-stage recorder, lat. 40°14'15", long. 111°41'45", in NE¼ sec. 3, T. 7 S., R. 2 E., 1,300 feet (revised) downstream from bridge on State Highway 114, 2 miles west of Provo, and 2 miles upstream from mouth.

Records available.- June 1933 to September 1934, November 1938 to September 1942. January 1937 to November 1938 at site 1,100 feet (revised) upstream, above one small diversion. May 1903 to June 1905 at site three-quarters of a mile upstream, above three small diversions. Records equivalent when adjusted for diversions.

Extremes.- Maximum discharge during year, 668 second-feet May 3 (gage height, 4.37 feet); minimum, less than 1 second-foot several days in August and September. 1903-5, 1933-34, 1937-42: Maximum discharge observed, 1,620 second-feet May 27, 1904; practically no flow during several periods.

Remarks.- Records good except those below 5 second-feet, which are fair. Station is below all diversions. At times entire flow is diverted above station for irrigation. Factory race diverts water above station into Provo Bay, an arm of Utah Lake. Records for this diversion were not obtained during the current year.

Cooperation.- Gage-height record and 19 discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 50 | 174 | 217 | 303 | 156 | 243 | 315 | 596 | 285 | 119 | 4 | 1 |
| 2 | 91 | 191 | 233 | 299 | 269 | 241 | 321 | 618 | 320 | 102 | 6 | 1 |
| 3 | 124 | 180 | 270 | 303 | 256 | 238 | 281 | 656 | 371 | 108 | 4 | 1 |
| 4 | 116 | 176 | 296 | 303 | 256 | 233 | 265 | 579 | 258 | 109 | 2 | 2 |
| 5 | 104 | 180 | 293 | 296 | 267 | 228 | 279 | 438 | 237 | 115 | 6 | 2 |
| 6 | 128 | 178 | 287 | 303 | 259 | 228 | 273 | 185 | 231 | 106 | 5 | 2 |
| 7 | 144 | 178 | 281 | 315 | 269 | 226 | 276 | 174 | 238 | 79 | 4 | 2 |
| 8 | 144 | 176 | 279 | 332 | 265 | 226 | 281 | 183 | 266 | 58 | 3 | 2 |
| 9 | 144 | 176 | 279 | 309 | 269 | 226 | 279 | 144 | 244 | 26 | 3 | 2 |
| 10 | 144 | 176 | 279 | 325 | 265 | 226 | 265 | 153 | 185 | 17 | 1 | 2 |
| 11 | 147 | 178 | 279 | 318 | 284 | 238 | 259 | 226 | 195 | 11 | 2 | 2 |
| 12 | 149 | 178 | 281 | 315 | 281 | 254 | 281 | 195 | 200 | 9 | 4 | 2 |
| 13 | 155 | 176 | 296 | 309 | 281 | 265 | 254 | 160 | 192 | 4 | 2 | 3 |
| 14 | 155 | a176 | 290 | 306 | 281 | 270 | 251 | 144 | 182 | 12 | 1 | 3 |
| 15 | 149 | a178 | 287 | 299 | 281 | 279 | 222 | 119 | 185 | 10 | 2 | 4 |
| 16 | 144 | a180 | 284 | 296 | 287 | 276 | 193 | 135 | 184 | 8 | 2 | 3 |
| 17 | 144 | a200 | 293 | 293 | 284 | 276 | 185 | 160 | 148 | 14 | 2 | 3 |
| 18 | 146 | a198 | 296 | 296 | 279 | 270 | 180 | 138 | 93 | 19 | 2 | 5 |
| 19 | 149 | a194 | 296 | 296 | 279 | 265 | 174 | 118 | 118 | 16 | 1 | 6 |
| 20 | 152 | a188 | 296 | 287 | 281 | 259 | 160 | 116 | 133 | 10 | 1 | 6 |
| 21 | 156 | a188 | 306 | 254 | 276 | 265 | 140 | 125 | 135 | 8 | 2 | 5 |
| 22 | 150 | 189 | 299 | 233 | 276 | 267 | 143 | 119 | 132 | 5 | 1 | 7 |
| 23 | 150 | 187 | 299 | 233 | 273 | 270 | 206 | 121 | 131 | 5 | 2 | 8 |
| 24 | 155 | 195 | 306 | 233 | 267 | 281 | 296 | 114 | 129 | 5 | 1 | 8 |
| 25 | 156 | 210 | 306 | 236 | 262 | 312 | 392 | 144 | 127 | 5 | 1 | 9 |
| 26 | 187 | 208 | 309 | 241 | 259 | 303 | 370 | 244 | 129 | 6 | 1 | 9 |
| 27 | 187 | 206 | 303 | 238 | 249 | 303 | 374 | 348 | 133 | 4 | 1 | 9 |
| 28 | 185 | 210 | 306 | 254 | 246 | 306 | 482 | 430 | 133 | 4 | 1 | 8 |
| 29 | 185 | 215 | 309 | 246 | - | 303 | 524 | 473 | 137 | 4 | 1 | 8 |
| 30 | 178 | 215 | 312 | 236 | - | 299 | 511 | 391 | 136 | 3 | 1 | 8 |
| 31 | 174 | - | 312 | 197 | - | 303 | - | 248 | - | 4 | 1 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 4,499 | 185 | 50 | 145 | 8,920 |
| November..... | 5,654 | 215 | 174 | 188 | 11,210 |
| December..... | 8,979 | 312 | 217 | 290 | 17,810 |
| Calendar year 1941..... | 55,350 | 548 | 0 | 152 | 109,800 |
| January..... | 8,704 | 332 | 197 | 281 | 17,280 |
| February..... | 7,427 | 287 | 156 | 265 | 14,730 |
| March..... | 8,179 | 312 | 226 | 264 | 16,220 |
| April..... | 8,432 | 524 | 140 | 281 | 16,720 |
| May..... | 7,955 | 656 | 114 | 287 | 15,780 |
| June..... | 5,587 | 371 | 93 | 186 | 11,080 |
| July..... | 1,005 | 119 | 3 | 32.4 | 1,990 |
| August..... | 70 | 6 | 1 | 2.3 | 139 |
| September..... | 133 | 9 | 1 | 4.4 | 264 |
| Water year 1941-42..... | 68,624 | 636 | 1 | 185 | 132,100 |

a No gage-height record; discharge computed on basis of records for station at Vivian Park.
 Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.
 To convert war time to standard time, subtract 1 hour.

JORDAN RIVER BASIN

Weber-Provo diversion canal near Woodland, Utah

Location.- Water-stage recorder and Parshall rating flume, lat. 40°26'40", long. 111°18'15", in SW¼SE¼ sec. 30, T. 2 S., R. 6 E., 100 feet upstream from outlet to Provo River and 4½ miles northwest of Woodland.

Records available.- October 1931 to September 1942.

Extremes.- Maximum daily discharge during year, 122 second-feet June 19; no water diverted from Weber River for several months.

1931-42: Maximum daily discharge, 152 second-feet June 14, 15, 1933; no water diverted from Weber River for several months during each year.

Remarks.- Records good. Canal diverts water from Weber River in SW¼SW¼ sec. 21, T. 1 S., R. 6 E., to Provo River for irrigation along Provo and Jordan Rivers. Figures given herein represent quantity of water reaching Provo River during periods when water was diverted from Weber River. Not all of water diverted from Weber River reaches Provo River due to evaporation, transpiration, and seepage losses. No water was being diverted from Weber River on days for which no figures are given.

Cooperation.- Records of daily discharge furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | | | | | | | - | 113 | 110 | 82 | | |
| 2 | | | | | | | - | 115 | 113 | 89 | | |
| 3 | | | | | | | - | 115 | 114 | 94 | | |
| 4 | | | | | | | - | 114 | 113 | 92 | | |
| 5 | | | | | | | - | 110 | 112 | 86 | | |
| 6 | | | | | | | - | 108 | 116 | 81 | | |
| 7 | | | | | | | - | 108 | 117 | 79 | | |
| 8 | | | | | | | - | 109 | 118 | 60 | | |
| 9 | | | | | | | - | 107 | 115 | 41 | | |
| 10 | | | | | | | - | 107 | 116 | 38 | | |
| 11 | | | | | | | - | 107 | 118 | 32 | | |
| 12 | | | | | | | - | 109 | 117 | 28 | | |
| 13 | | | | | | | - | 108 | 116 | 14 | | |
| 14 | | | | | | | - | 105 | 115 | - | | |
| 15 | | | | | | | - | 106 | 118 | - | | |
| 16 | | | | | | | - | 112 | 118 | - | | |
| 17 | | | | | | | - | 107 | 118 | - | | |
| 18 | | | | | | | 20 | 105 | 121 | - | | |
| 19 | | | | | | | 24 | 104 | 122 | - | | |
| 20 | | | | | | | 24 | 105 | 121 | - | | |
| 21 | | | | | | | 70 | 107 | 118 | - | | |
| 22 | | | | | | | 82 | 110 | 120 | - | | |
| 23 | | | | | | | 90 | 113 | 120 | - | | |
| 24 | | | | | | | 95 | 110 | 119 | - | | |
| 25 | | | | | | | 101 | 97 | 119 | - | | |
| 26 | | | | | | | 106 | 113 | 121 | - | | |
| 27 | | | | | | | 106 | 114 | 121 | - | | |
| 28 | | | | | | | 103 | 110 | 121 | - | | |
| 29 | | | | | | | 97 | 112 | 118 | - | | |
| 30 | | | | | | | 111 | 110 | 109 | - | | |
| 31 | | | | | | | - | 109 | - | - | | |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------------|------------------|---------|---------|------|---------------------|
| October..... | - | - | - | - | - |
| November..... | - | - | - | - | - |
| December..... | - | - | - | - | - |
| Calendar year 1941 | 4,506 | 117 | 0 | 12.3 | 8,940 |
| January..... | - | - | - | - | - |
| February..... | - | - | - | - | - |
| March..... | - | - | - | - | - |
| April..... | 1,006 | 106 | 0 | 35.5 | 2,000 |
| May..... | 3,379 | 115 | 97 | 109 | 6,700 |
| June..... | 3,515 | 122 | 109 | 117 | 6,970 |
| July..... | 817 | 94 | - | 26.4 | 1,680 |
| August..... | - | - | - | - | - |
| September..... | - | - | - | - | - |
| Water year 1941-42 | 8,717 | 122 | 0 | 23.9 | 17,290 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

South Fork of Provo River at Vivian Park, Utah

Location.- Water-stage recorder and Parshall flume, lat. 40°21', long. 111°34', in S⁴ sec. 26, T. 5 S., R. 3 E., a quarter of a mile southeast of Vivian Park and half a mile upstream from mouth.

Drainage area.- 30 square miles.

Records available.- November 1911 to September 1942.

Average discharge.- 30 years, 30.1 second-feet.

Extremes.- Maximum discharge during year, 59 second-feet May 27 (gage height, 1.39 feet); minimum, 23 second-feet July 7.
1911-42: Maximum discharge observed, 123 second-feet May 27, 1922; minimum discharge, 13 second-feet several times in 1934, 1935, and Apr. 2, 1937.

Remarks.- Records excellent. Station below all diversions.

Cooperation.- Gage-height record and results of 19 discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-foot, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 37 | 37 | 35 | a30 | 30 | 28 | 28 | 32 | 37 | 28 | 32 | 36 |
| 2 | 38 | 41 | 35 | a30 | 30 | 29 | 28 | 34 | 37 | 26 | 30 | 35 |
| 3 | 38 | 35 | 33 | a31 | 31 | 28 | 28 | 32 | 37 | 26 | 31 | 34 |
| 4 | 37 | 36 | 40 | a31 | 30 | 28 | 28 | 32 | 38 | 26 | 31 | 34 |
| 5 | 38 | 38 | 37 | a31 | 30 | 28 | 30 | 32 | 39 | 26 | 31 | 33 |
| 6 | 37 | 38 | 37 | a31 | 30 | 28 | 30 | 32 | 40 | 26 | 31 | 33 |
| 7 | 36 | 38 | 37 | a32 | 30 | 29 | 30 | 32 | 41 | 25 | 31 | 33 |
| 8 | 36 | 38 | 36 | *b32 | 30 | 28 | 30 | 33 | 41 | 26 | 30 | 33 |
| 9 | 36 | 38 | 35 | a32 | 30 | 28 | 30 | 34 | 40 | 27 | 30 | 34 |
| 10 | 36 | 38 | 35 | a31 | 30 | 28 | 30 | 35 | 38 | 28 | 30 | 33 |
| 11 | 36 | 37 | 34 | a31 | 30 | 28 | 30 | 36 | 37 | 27 | 32 | 34 |
| 12 | 36 | 37 | 34 | b30 | 30 | 28 | 30 | 35 | 37 | 28 | 32 | 37 |
| 13 | 36 | 36 | 34 | a30 | 30 | 29 | 30 | 35 | 37 | 28 | 32 | 43 |
| 14 | 33 | 37 | 33 | a30 | 30 | 28 | 30 | 34 | 36 | 29 | 32 | 43 |
| 15 | 33 | 36 | 32 | 30 | 30 | 28 | 32 | 34 | 35 | 29 | 32 | 42 |
| 16 | 33 | 36 | 32 | 30 | 31 | 29 | 32 | 34 | 35 | 31 | 31 | 42 |
| 17 | 35 | 40 | 32 | 30 | 30 | 28 | 34 | 34 | 32 | 34 | 31 | 41 |
| 18 | 36 | 37 | 32 | 30 | 30 | 28 | 33 | 33 | 30 | 35 | 30 | 41 |
| 19 | 37 | 37 | 32 | 30 | 30 | 29 | 32 | 32 | 30 | 36 | 31 | 41 |
| 20 | 37 | 36 | 32 | 30 | 30 | 28 | 34 | 32 | 29 | 35 | 31 | 40 |
| 21 | 37 | 36 | 32 | 30 | 30 | 27 | 34 | 32 | 28 | 32 | 32 | 40 |
| 22 | 36 | 36 | 32 | 30 | 30 | 27 | 35 | 34 | 27 | 31 | 35 | 40 |
| 23 | 36 | 36 | 32 | 30 | 30 | 27 | 35 | 33 | 26 | 31 | 34 | 40 |
| 24 | 36 | 35 | 32 | 30 | 30 | 27 | 34 | 35 | 25 | 30 | 35 | 40 |
| 25 | 36 | 32 | 32 | 30 | 30 | 26 | 34 | 41 | 26 | 28 | 36 | 40 |
| 26 | 36 | 32 | 32 | 30 | 29 | 26 | 34 | 51 | 26 | 29 | 36 | 41 |
| 27 | 36 | 32 | 32 | 30 | 29 | 26 | 34 | 57 | 27 | 30 | 36 | 40 |
| 28 | 38 | 34 | 32 | 30 | 29 | 26 | 39 | 54 | 28 | 32 | 36 | 40 |
| 29 | 37 | 35 | 31 | 30 | - | 26 | 35 | 51 | 28 | 32 | 37 | 40 |
| 30 | 37 | 35 | 31 | 30 | - | 27 | 34 | 46 | 29 | 32 | 38 | 40 |
| 31 | 37 | - | 31 | 30 | - | 27 | - | 40 | - | 32 | 38 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,123 | 38 | 33 | 36.2 | 2,250 |
| November..... | 1,094 | 41 | 32 | 36.5 | 2,170 |
| December..... | 1,041 | 40 | 31 | 33.6 | 2,060 |
| Calendar year 1941..... | 10,935 | 44 | 23 | 30.0 | 21,680 |
| January..... | 942 | 32 | 30 | 30.4 | 1,870 |
| February..... | 839 | 31 | 29 | 30.0 | 1,660 |
| March..... | 954 | 29 | 26 | 27.5 | 1,690 |
| April..... | 956 | 35 | 28 | 31.9 | 1,900 |
| May..... | 1,141 | 57 | 32 | 36.8 | 2,260 |
| June..... | 994 | 41 | 25 | 35.1 | 1,970 |
| July..... | 915 | 36 | 25 | 29.5 | 1,810 |
| August..... | 1,012 | 38 | 30 | 32.6 | 2,010 |
| September..... | 1,143 | 43 | 33 | 38.1 | 2,270 |
| Water year 1941-42..... | 12,054 | 57 | 25 | 33.0 | 23,900 |

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of one discharge measurement and one staff-gage reading on days indicated.

b Discharge computed from staff-gage reading.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

SEVIER LAKE BASIN

Sevier River at Hatch, Utah

Location.- Water-stage recorder, lat. 37°39'00", long. 112°25'30", in SW 1/4 sec. 28 T. 36 S., R. 5 W., 100 feet downstream from bridge, 0.2 mile east of Hatch, and 2.8 miles downstream from Mammoth Creek.

Drainage area.- 260 square miles.

Records available.- June 1911 to September 1923, June 1939 to September 1942.

Extremes.- 1939 (revised): Maximum discharge during period June to September, 614 second-feet Sept. 6 (gage height, 3.20 feet); minimum, 49 second-feet Aug. 24.

1939-40 (revised): Maximum discharge during water year, 560 second-feet Sept. 17 (gage height, 3.06 feet); minimum, 42 second-feet Aug. 4.

1940-41: Maximum discharge during water year, 1,140 second-feet May 14 (gage-height, 4.52 feet); minimum daily, 43 second-feet Dec. 15.

1941-42: Maximum daily discharge during water year, 780 second-feet May 28; minimum, 75 second-feet Mar. 17.

1911-23, 1939-42: Maximum discharge not determined, occurred May 25, 1914, when Hatchtown Dam failed; maximum recorder, 1,490 second-feet May 28, 1922 (gage-height, 5.25 feet, datum then in use); minimum daily, 10 second-feet (regulated) for several days in 1912 when water was stored in Hatchtown Reservoir.

Remarks.- Records good except those for periods of no gage-height record or ice effect, which are fair. Two small diversions from Mammoth Creek above station for irrigation. No regulation since Hatchtown Dam failed in 1914.

Revisions.- Revised figures of discharge for the period June 20 to Sept. 30, 1939, and water year 1939-40, superseding those published in Water-Supply Papers 880 and 900 respectively, are given herein.

Discharge, in second-feet, 1939-42

| 1939 | | | | | | | | | | |
|------|------|------|------|-------|-----|------|------|------|-------|-----|
| Day | June | July | Aug. | Sept. | Day | June | July | Aug. | Sept. | Day |
| 1 | - | 65 | 57 | 55 | 16 | - | 60 | 52 | 158 | |
| 2 | - | 65 | 56 | 54 | 17 | - | 60 | 51 | 139 | |
| 3 | - | 65 | 56 | 54 | 18 | - | 59 | 51 | 122 | |
| 4 | - | 65 | 56 | 60 | 19 | - | 57 | 52 | 106 | |
| 5 | - | 65 | 57 | 65 | 20 | 72 | 57 | 52 | 96 | |
| 6 | - | 65 | 60 | 195 | 21 | 70 | 56 | 52 | 92 | |
| 7 | - | 65 | 59 | 196 | 22 | 68 | 56 | 51 | 88 | |
| 8 | - | 65 | 57 | 129 | 23 | 65 | 60 | 52 | 84 | |
| 9 | - | 64 | 57 | 128 | 24 | 65 | 59 | 51 | 83 | |
| 10 | - | 64 | 57 | 116 | 25 | 66 | 60 | 51 | 83 | |
| 11 | - | 66 | 56 | 114 | 26 | 66 | 61 | 55 | 94 | |
| 12 | - | 64 | 56 | 211 | 27 | 66 | 61 | 62 | 95 | |
| 13 | - | 61 | 55 | 335 | 28 | 66 | 61 | 57 | 92 | |
| 14 | - | 61 | 55 | 190 | 29 | 65 | 60 | 59 | 92 | |
| 15 | - | 60 | 54 | 179 | 30 | 65 | 60 | 64 | 59 | |
| | | | | | 31 | - | 60 | 57 | - | |

1939-40

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 86 | 69 | 65 | 64 | a64 | 70 | 75 | 142 | 93 | 73 | 46 | 48 |
| 2 | 89 | 69 | 66 | 62 | a63 | 64 | 73 | 152 | 96 | 72 | 45 | 54 |
| 3 | 92 | 69 | 66 | 62 | a63 | 64 | 75 | 192 | 95 | 69 | 45 | 50 |
| 4 | 89 | 69 | 65 | 61 | a64 | 62 | 69 | 237 | 94 | 68 | 45 | 49 |
| 5 | 88 | 69 | 64 | 61 | a63 | 68 | 68 | 262 | 94 | 64 | 45 | 48 |
| 6 | 83 | 70 | 62 | b60 | a63 | 66 | 68 | 262 | 92 | 64 | 46 | 85 |
| 7 | 88 | 69 | 62 | b60 | a60 | 65 | 69 | 246 | 84 | 64 | 49 | 146 |
| 8 | 86 | 69 | 62 | 62 | *59 | 73 | 69 | 227 | 82 | 62 | 46 | 86 |
| 9 | 84 | 70 | 64 | 64 | 62 | 76 | 75 | 259 | 80 | 61 | 46 | 84 |
| 10 | 85 | 69 | 62 | 62 | 56 | 70 | 77 | 262 | 80 | 61 | 45 | 72 |
| 11 | 82 | 68 | 64 | 62 | 60 | 64 | 80 | 262 | 77 | 60 | 44 | 64 |
| 12 | 80 | 66 | 62 | 64 | 60 | 60 | 83 | 246 | 76 | 57 | 44 | 64 |
| 13 | 77 | 65 | 61 | 60 | 56 | 60 | 89 | 239 | 75 | 56 | 44 | 84 |
| 14 | 76 | 65 | *64 | b58 | 55 | 60 | 103 | 262 | 73 | 57 | 45 | 72 |
| 15 | 75 | 66 | 64 | b58 | 55 | 61 | 119 | 262 | 73 | 57 | 45 | 59 |
| 16 | 75 | 65 | 62 | b59 | 54 | 62 | 121 | 246 | 75 | 61 | 45 | 57 |
| 17 | 75 | 65 | 62 | b58 | 51 | 64 | 114 | 225 | 76 | 60 | 45 | 244 |
| 18 | 75 | 64 | 62 | b59 | 55 | 61 | 104 | 210 | 73 | 59 | 45 | 167 |
| 19 | 76 | 62 | 62 | b60 | 60 | 61 | 108 | 188 | 69 | 56 | 44 | 116 |
| 20 | 76 | 64 | 64 | b60 | 55 | 60 | 124 | 179 | 72 | 56 | 44 | 104 |
| 21 | 75 | 65 | 62 | b59 | 55 | 61 | 148 | 166 | 72 | 54 | 48 | 84 |
| 22 | 75 | 66 | b62 | b59 | 55 | 62 | 172 | 160 | 66 | 52 | 49 | 77 |
| 23 | 73 | 65 | b61 | b59 | 56 | 65 | 177 | 146 | 65 | 51 | 100 | 76 |
| 24 | 69 | 66 | b61 | a60 | 59 | 66 | 151 | 140 | 65 | 51 | 65 | 73 |
| 25 | 75 | 65 | b60 | a61 | 75 | 70 | 192 | 135 | 65 | 49 | 54 | 70 |
| 26 | 73 | 65 | b59 | a62 | 96 | 72 | 197 | 128 | 63 | 49 | 50 | 69 |
| 27 | 73 | 66 | b60 | a61 | 89 | 77 | 194 | 121 | 66 | 48 | 49 | 66 |
| 28 | 73 | 68 | b61 | a60 | 89 | 77 | 183 | 117 | 64 | 48 | 46 | 66 |
| 29 | 73 | 68 | b62 | a60 | 79 | 70 | 166 | 112 | 64 | 48 | 46 | 69 |
| 30 | 72 | 64 | b64 | a62 | - | 69 | 150 | 108 | 69 | 48 | 46 | 68 |
| 31 | 70 | - | b64 | a63 | - | 72 | - | 101 | - | 48 | 45 | - |

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records at Kingston and temperature records.

b Stage-discharge relation affected by ice.

SEVIER LAKE BASIN

71

Discharge, in second-feet, of Sevier River at Hatch, Utah, 1939-42--Continued

1940-41

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-------|------|------|------|-------|
| 1 | 65 | 56 | 55 | 49 | 51 | 61 | 92 | 227 | 732 | 290 | 166 | 119 |
| 2 | 64 | 56 | 55 | 48 | b48 | b49 | 83 | 244 | 735 | 277 | 156 | 117 |
| 3 | 62 | 57 | 54 | b46 | b49 | 57 | 79 | 293 | 774 | 267 | 150 | 117 |
| 4 | 64 | 57 | 52 | b44 | b49 | 56 | 79 | 328 | 760 | 254 | 148 | 117 |
| 5 | 68 | 56 | 52 | b44 | b49 | 56 | 86 | 365 | 749 | 252 | 146 | 116 |
| 6 | 65 | 56 | 52 | b44 | b49 | 56 | 90 | 454 | 766 | 246 | 146 | 114 |
| 7 | 62 | 56 | 51 | b45 | b50 | 55 | 79 | 518 | 822 | 242 | 150 | 112 |
| 8 | 61 | 55 | 51 | b48 | 51 | 54 | 80 | 770 | 766 | 234 | 170 | 112 |
| 9 | 62 | 55 | 52 | b46 | 52 | 55 | 82 | 718 | 696 | 227 | 166 | 112 |
| 10 | 62 | 54 | 51 | b46 | 52 | 54 | 90 | 822 | 651 | 222 | 162 | 112 |
| 11 | 60 | 54 | 51 | b46 | 55 | 55 | 89 | 898 | 637 | 222 | 166 | 111 |
| 12 | 59 | 54 | b51 | b46 | 50 | 55 | 89 | 993 | 634 | 213 | 160 | 111 |
| 13 | 57 | 55 | b48 | 48 | 52 | 59 | 92 | 1,080 | 645 | 199 | 144 | 128 |
| 14 | 57 | 55 | b46 | 49 | 52 | 61 | 94 | 1,060 | 656 | 190 | 140 | 131 |
| 15 | 57 | 54 | b45 | b52 | 54 | 56 | 94 | 1,010 | 638 | 179 | 139 | 122 |
| 18 | 57 | 54 | b45 | 51 | 52 | 56 | 104 | 950 | 634 | 174 | 142 | 114 |
| 17 | 55 | 54 | b46 | b49 | 54 | 57 | 94 | 942 | 617 | 172 | 137 | 111 |
| 18 | 54 | 55 | b45 | b47 | 54 | 60 | 90 | 922 | 594 | 179 | 131 | 109 |
| 19 | 54 | 56 | b45 | b49 | 54 | 62 | 86 | 844 | 564 | 206 | 126 | 108 |
| 20 | 52 | 55 | b45 | b50 | 51 | 65 | 86 | 788 | 541 | 170 | 124 | 106 |
| 21 | 50 | 54 | b46 | b47 | 57 | 64 | 84 | 777 | 511 | 160 | 122 | 108 |
| 22 | 49 | 52 | b47 | b47 | b57 | 65 | 88 | 755 | 492 | 154 | 121 | 124 |
| 23 | 49 | b51 | b47 | b48 | 57 | 66 | 89 | 728 | 444 | 266 | 117 | 117 |
| 24 | 49 | b51 | b47 | b50 | 57 | 64 | 92 | 696 | 410 | 264 | 116 | 112 |
| 25 | 49 | b51 | b47 | b49 | 56 | 65 | 104 | 710 | 386 | 239 | 149 | 111 |
| 26 | 121 | 52 | b44 | 50 | 54 | 64 | 112 | 735 | 365 | 208 | 116 | 111 |
| 27 | 66 | b56 | b45 | 49 | 54 | 65 | 124 | 756 | 342 | 204 | 116 | 116 |
| 28 | 61 | 55 | b46 | 50 | 56 | 66 | 140 | 758 | 325 | 194 | 116 | 116 |
| 29 | 60 | 54 | 48 | 52 | - | 70 | 168 | 738 | 306 | 188 | 116 | 117 |
| 30 | 59 | 55 | 46 | 51 | - | 72 | 197 | 735 | 301 | 179 | 121 | 116 |
| 31 | 57 | - | 49 | 51 | - | 80 | - | 728 | - | 172 | 119 | - |

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

1941-42

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1 | 109 | 109 | 104 | b95 | b90 | b90 | 188 | 298 | a660 | 188 | 126 | a98 |
| 2 | 116 | 108 | 103 | b90 | b90 | b90 | 192 | 290 | a620 | 188 | 126 | a96 |
| 3 | 121 | 108 | 104 | b90 | 90 | b92 | 225 | 254 | a600 | 185 | 121 | a98 |
| 4 | 119 | 106 | 108 | b86 | 89 | b95 | 295 | 254 | a580 | 183 | 114 | a100 |
| 5 | 114 | 106 | 96 | b86 | 90 | b95 | 242 | 256 | 554 | 181 | 121 | a100 |
| 6 | 112 | 106 | 96 | b88 | 90 | b92 | 164 | 269 | 577 | 177 | 133 | a98 |
| 7 | 111 | 106 | 100 | b90 | 90 | b88 | 154 | 298 | 561 | 170 | 117 | a96 |
| 8 | 109 | 104 | 98 | b92 | 89 | b90 | 162 | 339 | 514 | 168 | 117 | a92 |
| 9 | 106 | 104 | 96 | b94 | 86 | b96 | 166 | 392 | 472 | 166 | 117 | a90 |
| 10 | 104 | 103 | 100 | b94 | 89 | b106 | 185 | 444 | 457 | 162 | 119 | a88 |
| 11 | 101 | 103 | 100 | b90 | 88 | b110 | 197 | 466 | 416 | 160 | 117 | a88 |
| 12 | 106 | 106 | 98 | b90 | 89 | b98 | 225 | 498 | 383 | 156 | 112 | a90 |
| 13 | 146 | 109 | *100 | b92 | b88 | 90 | 239 | 492 | 367 | 148 | 112 | a92 |
| 14 | 139 | 111 | 96 | b94 | b88 | 84 | a320 | 460 | 339 | 140 | 111 | a92 |
| 15 | 133 | 108 | 96 | b95 | b85 | 84 | a370 | 454 | 328 | 146 | 104 | a94 |
| 16 | 124 | 108 | 98 | b94 | b82 | 84 | a350 | 454 | 306 | 140 | 101 | a92 |
| 17 | 118 | 121 | 98 | b92 | b82 | 84 | a330 | 454 | 295 | 154 | 98 | a90 |
| 18 | 111 | 111 | 95 | b90 | b80 | 101 | 306 | 457 | 282 | 156 | 100 | a90 |
| 19 | a115 | 109 | 96 | b88 | b80 | 94 | 304 | 485 | 267 | 146 | 108 | a90 |
| 20 | a120 | 108 | 96 | b88 | b82 | 86 | 312 | 538 | 269 | 142 | 119 | 90 |
| 21 | a130 | 101 | 96 | b88 | b86 | 86 | 320 | 587 | 252 | 139 | 103 | 90 |
| 22 | a135 | 104 | 96 | b90 | b86 | 96 | 392 | 624 | 239 | 137 | 101 | 92 |
| 23 | a145 | 106 | 98 | b92 | b86 | 109 | 447 | 631 | 237 | 133 | 96 | 92 |
| 24 | a160 | 104 | 95 | b94 | b86 | 98 | 401 | 641 | 232 | 131 | a98 | 92 |
| 25 | a150 | 103 | 98 | b94 | b86 | 86 | 380 | 655 | 237 | 129 | a120 | 92 |
| 26 | a130 | 103 | 96 | b94 | b88 | 84 | 377 | 710 | 234 | 137 | a115 | a90 |
| 27 | 114 | 108 | 96 | b92 | b88 | 88 | 345 | 723 | 222 | 142 | a110 | a88 |
| 28 | 128 | 106 | 96 | b92 | b90 | 95 | 325 | a730 | 210 | 135 | a102 | a88 |
| 29 | 129 | 104 | 96 | b90 | - | 117 | 328 | a730 | 199 | 133 | a102 | a90 |
| 30 | 116 | 106 | 94 | b90 | - | 142 | 301 | a680 | 182 | 126 | b103 | a90 |
| 31 | 111 | - | 96 | b90 | - | 156 | - | - | - | 126 | a100 | - |

* Winter discharge measurement made this day.
 a No gage-height record; discharge computed on basis of records at Kingston.
 b Stage-discharge relation affected by ice.
 c Computed from staff-gage reading.
 Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.
 To convert War time to standard time, subtract 1 hour.

SEVIER LAKE BASIN

Monthly discharge, in second-feet, of Sevier River at Hatch, Utah, 1939-41

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| June 20-30, 1939 | 754 | 72 | 65 | 66.7 | 1,460 |
| July | 1,907 | 66 | 56 | 61.5 | 3,780 |
| August | 1,717 | 64 | 51 | 56.4 | 3,410 |
| September | 3,599 | 335 | 54 | 120.0 | 7,140 |
| The period | - | - | - | - | 15,790 |
| October 1939 | 2,456 | 92 | 69 | 78.6 | 4,850 |
| November | 2,000 | 70 | 62 | 66.7 | 3,970 |
| December | 1,941 | 66 | 59 | 62.6 | 3,850 |
| Calendar year | - | - | - | - | - |
| January 1940 | 1,882 | 64 | 58 | 60.7 | 3,750 |
| February | 1,851 | 96 | 51 | 65.1 | 3,630 |
| March | 2,052 | 77 | 60 | 66.2 | 4,070 |
| April | 3,585 | 137 | 88 | 117 | 6,980 |
| May | 5,994 | 282 | 101 | 193 | 11,890 |
| June | 2,228 | 98 | 64 | 76.6 | 4,560 |
| July | 1,785 | 73 | 48 | 67.5 | 3,540 |
| August | 1,514 | 100 | 44 | 48.8 | 3,000 |
| September | 2,471 | 244 | 48 | 82.4 | 4,900 |
| Water year 1939-40 | 29,725 | 262 | 44 | 81.2 | 58,960 |
| October 1940 | 1,867 | 121 | 49 | 60.2 | 3,700 |
| November | 1,834 | 57 | 51 | 54.5 | 3,240 |
| December | 1,601 | 55 | 43 | 48.4 | 2,980 |
| Calendar year 1940 | 28,489 | 262 | 43 | 77.8 | 56,500 |
| January 1941 | 1,491 | 52 | 44 | 48.1 | 2,960 |
| February | 1,477 | 57 | 49 | 52.8 | 2,930 |
| March | 1,695 | 80 | 54 | 61.1 | 3,760 |
| April | 2,946 | 197 | 79 | 98.2 | 5,840 |
| May | 22,300 | 1,060 | 227 | 719 | 44,250 |
| June | 17,468 | 822 | 501 | 582 | 34,840 |
| July | 6,855 | 290 | 154 | 214 | 13,160 |
| August | 4,245 | 170 | 114 | 137 | 8,420 |
| September | 5,447 | 131 | 106 | 116 | 6,840 |
| Water year 1940-41 | 66,900 | 1,060 | 45 | 165 | 132,700 |
| October 1941 | 3,773 | 160 | 101 | 122 | 7,490 |
| November | 3,194 | 121 | 101 | 106 | 6,340 |
| December | 5,054 | 108 | 94 | 97.9 | 6,020 |
| Calendar year 1941 | 72,734 | 1,060 | 44 | 199 | 144,500 |
| January 1942 | 2,824 | 95 | 86 | 91.1 | 5,600 |
| February | 3,435 | 90 | 80 | 87.0 | 4,350 |
| March | 3,006 | 156 | 84 | 96.9 | 5,960 |
| April | 8,542 | 447 | 154 | 285 | 16,940 |
| May | 16,305 | 780 | 254 | 494 | 30,350 |
| June | 11,081 | 660 | 192 | 369 | 21,980 |
| July | 4,724 | 188 | 126 | 162 | 9,370 |
| August | 3,445 | 135 | 96 | 111 | 6,830 |
| September | 2,788 | 100 | 86 | 92.5 | 5,490 |
| Water year 1941-42 | 64,126 | 780 | 80 | 176 | 127,800 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Sevier River near Kingston, Utah

Location.— Water-stage recorder and concrete control, lat. 38°12', long. 112°12', in **NE 1/4 sec. 16, T. 30 S., R. 3 W.,** 1,000 feet upstream from bridge on State Highway 22, 1 mile west of Kingston, and 2 miles upstream from East Fork.

Drainage area.— 1,110 square miles.

Records available.— June 1914 to September 1942.

Average discharge.— 28 years, 152 second-feet.

Extremes.— Maximum discharge during year, 790 second-feet May 28 (gage height, 2.68 feet); minimum, 18 second-feet July 28.

1914-42: Maximum discharge, about 3,000 second-feet (including estimated flow of 360 second-feet, in overflow channel bypassing station) Mar. 4, 1938 (gage-height, 5.20 feet), from rating curve extended above 600 second-feet; minimum daily, 5 second-feet June 16-20, 1931, July 30 to Aug. 15, 1940.

Remarks.— Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station; none between station and mouth of East Fork.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 198 | 205 | 216 | 184 | 209 | b210 | 424 | 527 | 648 | 46 | 37 | 41 |
| 2 | 158 | 205 | 216 | 187 | 209 | b220 | 424 | 489 | 610 | 76 | 35 | 45 |
| 3 | 154 | 205 | 220 | a180 | 205 | b220 | 419 | 438 | 615 | 63 | 32 | 38 |
| 4 | 160 | 205 | 220 | a160 | 209 | b240 | 518 | 453 | 598 | 72 | 27 | 38 |
| 5 | 160 | 198 | 201 | a160 | 205 | b220 | 522 | 419 | 506 | 72 | 25 | 43 |
| 6 | 160 | 194 | 191 | a170 | 209 | 270 | 424 | 419 | 428 | 76 | 34 | 40 |
| 7 | 160 | 191 | 191 | a180 | 216 | 258 | 321 | 424 | 388 | 63 | 35 | 44 |
| 8 | 154 | 191 | 198 | a190 | 212 | 212 | 295 | 445 | 354 | 50 | 30 | 45 |
| 9 | 151 | 191 | 187 | a200 | 198 | 254 | 295 | 458 | 316 | 48 | 31 | 38 |
| 10 | 148 | 194 | 201 | a200 | 194 | 390 | 359 | 500 | 278 | 46 | 38 | 38 |
| 11 | 148 | 198 | 205 | a190 | 194 | 448 | 352 | 568 | 259 | 40 | 50 | 35 |
| 12 | 148 | 198 | a201 | a190 | 187 | 376 | 453 | 598 | 194 | 34 | 47 | 34 |
| 13 | 231 | 209 | 201 | a200 | b185 | a304 | 458 | 588 | 160 | 32 | 35 | 37 |
| 14 | 274 | 205 | 201 | a205 | b185 | 231 | 495 | 549 | 160 | 30 | 32 | 45 |
| 15 | 227 | 201 | 194 | 209 | b190 | 201 | 522 | 474 | 140 | 32 | 32 | 45 |
| 16 | 205 | 198 | 194 | 216 | b160 | 177 | 527 | 455 | 132 | 27 | 30 | 45 |
| 17 | 191 | 209 | 198 | 212 | b160 | 167 | 505 | 445 | 123 | 28 | 26 | 45 |
| 18 | 187 | 224 | 198 | 201 | b180 | 174 | 495 | 419 | 104 | 28 | 30 | 34 |
| 19 | 191 | 164 | 187 | 191 | b180 | a200 | 448 | 337 | 84 | 48 | 32 | 45 |
| 20 | 194 | 187 | 187 | 187 | b170 | a200 | 458 | 352 | 70 | 30 | 47 | 45 |
| 21 | 216 | 205 | 191 | 184 | b180 | a180 | 458 | 404 | 53 | 30 | 52 | 46 |
| 22 | 220 | 184 | 184 | 187 | b180 | a200 | 495 | 453 | 53 | 24 | 47 | 46 |
| 23 | 222 | 177 | 187 | 194 | b180 | a250 | 632 | 469 | 45 | 24 | 52 | 52 |
| 24 | 304 | 177 | 184 | 201 | b180 | a350 | 637 | 576 | 35 | 22 | 50 | 57 |
| 25 | 278 | 184 | 187 | 212 | b185 | a400 | 576 | 664 | 37 | 24 | 172 | 57 |
| 26 | 255 | 191 | b190 | 212 | b190 | a300 | 588 | 670 | 37 | 20 | 155 | 55 |
| 27 | 220 | 198 | b170 | 212 | b190 | a250 | 588 | 790 | 38 | 27 | 132 | 45 |
| 28 | 227 | 205 | 174 | 216 | b200 | a275 | 522 | 742 | 43 | 37 | 104 | 40 |
| 29 | 222 | 209 | 191 | 216 | - | a325 | 522 | 748 | 35 | 43 | 76 | 45 |
| 30 | 255 | 209 | 191 | 205 | - | a375 | 510 | 675 | 61 | 45 | 65 | 57 |
| 31 | 212 | - | 184 | 201 | - | a400 | 510 | 659 | - | 40 | 48 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 5,178 | 304 | 126 | 199 | 12,250 |
| November | 5,941 | 224 | 177 | 198 | 11,780 |
| December | 6,050 | 220 | 170 | 195 | 11,960 |
| Calendar year 1941 | 52,545 | 1,900 | 20 | 226 | 163,500 |
| January | 6,058 | 216 | 160 | 195 | 12,000 |
| February | 5,282 | 216 | 150 | 189 | 10,480 |
| March | 5,357 | 418 | 167 | 229 | 16,540 |
| April | 14,194 | 637 | 295 | 475 | 28,150 |
| May | 16,140 | 748 | 352 | 521 | 32,010 |
| June | 6,558 | 643 | 35 | 219 | 13,030 |
| July | 1,537 | 88 | 20 | 45.1 | 2,650 |
| August | 1,643 | 172 | 25 | 55.0 | 3,260 |
| September | 1,526 | 57 | 34 | 44.2 | 2,630 |
| Water year 1941-42 | 79,028 | 748 | 20 | 217 | 166,700 |

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for station at Hatch and weather records.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

SEVIER LAKE BASIN

Piute Reservoir near Marysville, Utah

Location.- Staff gage, lat. 38°20', long. 112°12', in NW¼ sec. 3, T. 29 S., R. 3 W. at Piute Dam, 9 miles south of Marysville. Datum of gage is 5,900.8 feet above mean sea level.

Drainage area.- 2,440 square miles.

Records available.- March 1914 to September 1942.

Extremes.- Maximum contents during year, 73,760 acre-feet June 6 (gage height, 75.9 feet); minimum, 17,070 acre-feet Sept. 22-23 (gage height, 44.1 feet).
1914-42: Maximum contents, 82,300 acre-feet May 28, 1922 (gage height, 76.4 feet, original capacity table); no storage at times during several years.

Remarks.- Reservoir is formed by earth-fill dam; storage began in summer of 1910. Capacity, 84,750 acre-feet between gage height 16 feet (approximate bottom of reservoir) and gage height 80 feet (top of flashboards on spillway). Spillway crest is at gage-height 70.2 feet. No dead storage. Water is used for irrigation. Contents correspond to gage readings about 4 p.m. daily.

Contents, in acre-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 27,730 | 42,790 | 54,910 | 54,710 | 53,710 | 55,310 | 68,330 | 72,500 | 73,260 | 59,450 | 33,670 | 22,760 |
| 2 | 27,730 | 43,510 | 55,110 | 54,710 | 54,110 | 55,310 | 69,300 | 72,500 | 73,260 | 58,600 | 33,510 | 22,470 |
| 3 | 28,020 | 44,240 | 55,310 | 54,710 | 54,510 | 55,310 | 70,760 | 72,260 | 73,610 | 57,750 | 33,350 | 21,920 |
| 4 | 28,520 | 44,980 | 55,510 | 54,510 | 54,910 | 55,310 | 71,750 | 72,000 | 73,260 | 56,930 | 33,200 | 21,380 |
| 5 | 28,510 | 45,710 | 55,710 | 54,510 | 55,510 | 55,310 | 72,250 | 71,750 | 73,610 | 56,120 | 32,720 | 20,710 |
| 8 | 28,910 | 46,450 | 55,910 | 54,310 | 55,710 | 55,510 | 72,760 | 72,000 | 73,760 | 55,110 | 32,260 | 20,320 |
| 7 | 29,200 | 47,190 | 55,710 | 54,110 | 56,120 | 55,510 | 72,760 | 72,000 | 73,510 | 54,110 | 31,790 | 19,600 |
| 8 | 29,500 | 47,740 | 55,510 | 53,710 | 56,320 | 55,710 | 72,500 | 71,750 | 73,260 | 52,920 | 31,480 | 19,280 |
| 9 | 29,950 | 47,930 | 55,310 | 53,510 | 56,320 | 55,910 | 72,500 | 71,500 | 73,010 | 51,740 | 31,170 | 18,780 |
| 10 | 30,260 | 48,310 | 55,510 | 53,120 | 56,530 | 55,530 | 72,500 | 71,260 | 72,760 | 50,680 | 31,020 | 18,160 |
| 11 | 30,710 | 48,490 | 55,510 | 52,720 | 56,530 | 57,140 | 72,500 | 72,000 | 72,500 | 49,450 | 30,860 | 17,560 |
| 12 | 31,480 | 48,680 | 55,310 | 52,530 | 57,960 | 57,960 | 72,760 | 72,760 | 72,000 | 48,310 | 30,710 | 17,190 |
| 13 | 32,250 | 48,870 | 55,310 | 52,330 | 56,530 | 58,650 | 73,010 | 73,260 | 72,000 | 47,190 | 30,710 | 17,310 |
| 14 | 33,040 | 49,060 | 55,310 | 52,130 | 56,320 | 59,450 | 73,010 | 72,760 | 71,500 | 46,080 | 30,560 | 17,310 |
| 15 | 33,830 | 49,250 | 55,310 | 52,130 | 56,320 | 60,100 | 73,010 | 72,250 | 71,010 | 44,980 | 30,410 | 17,430 |
| 16 | 34,640 | 49,620 | 55,310 | 51,940 | 56,120 | 60,320 | 73,010 | 71,750 | 70,520 | 43,890 | 30,260 | 17,430 |
| 17 | 35,450 | 50,000 | 55,110 | 51,940 | 56,120 | 60,760 | 73,010 | 71,500 | 70,030 | 42,750 | 29,950 | 17,430 |
| 18 | 36,290 | 50,320 | 55,110 | 51,740 | 55,910 | 60,980 | 73,010 | 71,260 | 69,540 | 41,860 | 29,500 | 17,430 |
| 19 | 36,830 | 50,970 | 55,110 | 51,740 | 55,910 | 61,200 | 73,010 | 70,760 | 68,810 | 40,980 | 28,910 | 17,430 |
| 20 | 36,960 | 51,560 | 54,910 | 51,550 | 55,710 | 61,420 | 73,010 | 71,010 | 68,090 | 40,270 | 28,320 | 17,310 |
| 21 | 37,300 | 51,940 | 54,910 | 51,550 | 55,710 | 61,640 | 72,760 | 71,260 | 67,370 | 39,560 | 27,730 | 17,190 |
| 22 | 37,650 | 52,130 | 54,910 | 51,350 | 55,710 | 61,850 | 72,760 | 71,500 | 66,550 | 39,030 | 27,000 | 17,070 |
| 23 | 38,160 | 52,530 | 54,910 | 51,350 | 55,710 | 62,080 | 73,010 | 71,750 | 65,960 | 38,510 | 26,420 | 17,070 |
| 24 | 38,680 | 52,920 | 54,910 | 51,160 | 55,710 | 62,530 | 73,260 | 72,000 | 65,260 | 37,990 | 25,850 | 17,190 |
| 25 | 39,030 | 53,320 | 54,710 | 50,970 | 55,510 | 62,980 | 73,010 | 72,250 | 64,570 | 37,470 | 25,280 | 17,310 |
| 26 | 39,550 | 53,510 | 54,710 | 51,550 | 55,510 | 63,210 | 73,010 | 72,500 | 63,660 | 35,950 | 24,860 | 17,430 |
| 27 | 40,090 | 53,710 | 54,710 | 51,740 | 55,510 | 63,890 | 72,760 | 72,500 | 62,760 | 35,450 | 24,430 | 17,560 |
| 28 | 40,620 | 53,910 | 54,710 | 52,130 | 55,510 | 64,570 | 72,500 | 72,760 | 61,860 | 35,790 | 24,000 | 17,680 |
| 29 | 41,160 | 54,110 | 54,710 | 52,630 | - | 65,260 | 72,250 | 72,760 | 60,980 | 35,290 | 23,720 | 17,800 |
| 30 | 41,700 | 54,510 | 54,710 | 52,920 | - | 66,190 | 72,500 | 73,010 | 60,520 | 34,800 | 23,440 | 17,920 |
| 31 | 42,240 | - | 54,710 | 53,320 | - | 67,130 | - | 73,260 | - | 34,150 | 23,030 | - |

Monthly gage height and contents, water year October 1941 to September 1942

| Date | Gage height (feet) | Contents (acre-feet) | Change in contents during month (acre-feet) |
|-------------------------|--------------------|----------------------|---|
| Sept. 30..... | 51.9 | 27,680 | - |
| Oct. 31..... | 60.9 | 42,240 | +14,560 |
| Nov. 30..... | 67.4 | 54,510 | +12,270 |
| Dec. 31..... | 67.5 | 54,710 | +200 |
| Calendar year 1941..... | - | - | +28,430 |
| Jan. 31..... | 66.8 | 53,320 | -1,390 |
| Feb. 28..... | 67.9 | 55,510 | +2,190 |
| Mar. 31..... | 73.2 | 67,130 | +11,620 |
| Apr. 30..... | 75.4 | 72,500 | +5,370 |
| May 31..... | 78.7 | 73,260 | +760 |
| June 30..... | 70.2 | 60,320 | -12,940 |
| July 31..... | 56.2 | 34,150 | -26,170 |
| Aug. 31..... | 48.7 | 23,030 | -11,120 |
| Sept. 30..... | 44.8 | 17,920 | -5,110 |
| Water year 1941-42..... | - | - | -9,660 |

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Sevier River below Piute Dam, near Marysvale, Utah

Location.- Water-stage recorder, lat. 38°20', long. 112°11', in NE¼ sec. 34, T. 28 S., R. 3 W., three-quarters of a mile downstream from Piute Dam and 8 miles south of Marysvale.

Drainage area.- 2,440 square miles.

Records available.- May 1911 to September 1942.

Average discharge.- 30 years (1912-42), 254 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,120 second-feet Apr. 24, May 14; maximum gage-height observed, 3.72 feet May 14; minimum daily discharge, 20 second-feet Nov. 14-25.

1911-42: Maximum discharge, 2,600 second-feet May 23, 24; 1922; practically no flow at times when reservoir gates are closed.

Remarks.- Records excellent except those during periods of staff-gage readings and no or doubtful gage-height records, which are good. One small diversion between gage and Piute Reservoir. Flow regulated by reservoir. (See preceding page.)

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 4 to Sept. 30)

| | | | | | | | |
|-----|-----|-----|-----|-----|-------|-----|-------|
| 0.2 | 30 | 1.0 | 169 | 2.6 | 656 | 5.0 | 1,800 |
| .3 | 44 | 1.3 | 241 | 3.0 | 786 | 5.5 | 2,100 |
| .4 | 58 | 1.6 | 321 | 3.4 | 950 | 6.0 | 2,400 |
| .6 | 88 | 2.0 | 438 | 4.0 | 1,260 | 6.4 | 2,640 |
| .8 | 126 | 2.3 | 534 | 4.5 | 1,500 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|-------|--------|------|------|------|-------|
| 1 | 184 | 54 | 68 | 224 | 51 | 226 | 48 | 833 | 750 | 570 | 411 | 469 |
| 2 | 139 | 54 | 108 | 224 | 31 | 226 | 48 | 825 | 759 | 598 | 396 | 491 |
| 3 | 80 | 54 | 185 | 224 | 31 | 226 | 48 | 817 | 453 | 604 | 396 | 521 |
| 4 | 83 | 54 | 185 | 224 | 31 | 226 | 365 | 668 | 411 | 601 | 488 | 534 |
| 5 | 83 | 54 | 185 | 224 | 31 | 226 | 570 | 550 | 321 | 694 | 469 | 544 |
| 6 | 83 | 54 | 214 | 264 | 31 | 226 | 778 | 534 | 390 | 594 | 495 | 541 |
| 7 | 85 | 54 | 244 | 313 | 54 | 228 | 759 | 702 | a450 | 594 | 466 | 541 |
| 8 | 83 | 54 | 244 | 355 | 167 | 174 | 720 | 694 | 551 | 687 | 450 | 544 |
| 9 | 66 | 54 | 244 | 369 | 167 | a34 | 687 | 690 | 498 | 698 | 460 | 541 |
| 10 | 51 | 54 | 241 | 372 | 167 | a33 | 643 | 694 | 349 | 766 | 375 | 641 |
| 11 | 51 | a40 | 241 | 390 | 167 | a32 | 658 | 724 | 426 | 788 | 372 | 537 |
| 12 | 52 | a25 | 241 | 375 | 187 | a31 | 720 | 750 | 424 | 774 | 318 | 366 |
| 13 | 52 | a22 | 241 | 318 | 226 | a31 | 861 | 955 | 132 | 786 | 289 | 310 |
| 14 | 52 | a20 | 241 | 294 | 226 | a30 | 936 | a1,060 | 365 | 790 | 289 | 254 |
| 15 | 52 | a20 | 238 | 291 | 226 | a30 | 914 | 1,060 | 447 | 770 | 324 | 238 |
| 16 | 52 | a20 | 238 | 291 | 224 | a30 | 927 | 910 | 447 | 765 | 361 | 251 |
| 17 | 52 | a20 | 241 | 291 | 224 | a30 | 945 | 821 | 469 | 720 | 531 | 255 |
| 18 | 52 | a20 | 241 | 291 | 226 | a30 | 936 | 865 | 457 | 654 | 534 | 310 |
| 19 | 52 | a20 | 238 | 291 | 224 | 120 | 923 | 647 | 454 | 544 | 574 | 327 |
| 20 | 52 | a20 | 236 | 289 | 226 | 160 | 881 | 612 | 454 | 647 | 608 | 324 |
| 21 | 52 | a20 | 224 | 289 | 226 | 160 | 766 | 626 | 447 | 537 | 629 | 324 |
| 22 | 52 | a20 | 224 | 269 | 226 | 160 | 683 | 647 | 390 | 521 | 661 | 324 |
| 23 | 52 | a20 | 224 | 269 | 226 | 160 | 705 | 672 | 435 | 524 | 654 | 299 |
| 24 | 52 | a40 | 224 | 269 | 226 | 160 | 970 | 695 | 485 | 574 | 654 | 262 |
| 25 | 52 | a40 | 224 | 268 | 226 | 162 | 1,080 | 855 | 501 | 574 | 650 | 215 |
| 26 | 54 | 66 | 224 | 168 | 224 | 145 | 1,030 | 877 | 508 | 570 | 591 | 218 |
| 27 | 54 | 66 | 224 | 50 | 224 | 47 | 1,030 | 881 | 504 | 567 | 557 | 218 |
| 28 | 54 | 66 | 224 | 38 | 226 | 44 | 1,010 | 901 | 495 | 554 | 534 | 218 |
| 29 | 54 | 66 | 224 | 36 | - | 44 | 839 | 893 | 511 | 527 | 504 | 209 |
| 30 | 54 | 68 | 224 | 32 | - | 45 | 829 | 759 | 524 | 420 | 472 | 171 |
| 31 | 54 | - | 224 | 31 | - | 47 | - | 739 | - | 423 | 469 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,978 | 139 | 51 | 64 | 3,920 |
| November..... | 1,219 | 68 | 20 | 41 | 2,420 |
| December..... | 6,758 | 244 | 68 | 218 | 13,400 |
| Calendar year 1941..... | 98,445 | 2,120 | 4 | 270 | 195,200 |
| January..... | 7,711 | 390 | 31 | 249 | 15,290 |
| February..... | 4,701 | 226 | 31 | 185 | 9,320 |
| March..... | 3,523 | 228 | 30 | 114 | 6,990 |
| April..... | 22,349 | 1,080 | 48 | 745 | 44,350 |
| May..... | 24,033 | 1,060 | 54 | 775 | 47,670 |
| June..... | 13,777 | 750 | 132 | 459 | 27,330 |
| July..... | 19,222 | 790 | 420 | 620 | 38,130 |
| August..... | 14,909 | 661 | 289 | 481 | 29,570 |
| September..... | 10,908 | 544 | 171 | 354 | 21,640 |
| Water year 1941-42..... | 151,088 | 1,080 | 20 | 359 | 280,000 |

a. No or doubtful gage-height record; discharge computed on basis of record for station near Sevier.

Note.- Discharge computed from staff-gage readings May 15 to June 6.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

SEVIER LAKE BASIN

Sevier River above Clear Creek, near Sevier, Utah

Location.- Water-stage recorder, lat. 38°34'20", long. 112°15'25", in NW¼ sec. 5, T. 28 S., R. 4 W., 0.6 mile upstream from bridge on U.S. Highway 89, 0.7 mile upstream from Clear Creek, and 1 mile south of Sevier.

Drainage area.- 2,700 square miles.

Records available.- April 1939 to September 1942. May 1911 to September 1929 at site 0.8 mile downstream, published as Sevier River at Sevier; those for Nov. 16, 1916, to September 1929 include flow of Clear Creek and are not equivalent.

Extremes (regulated).- Maximum discharge during year, 1,160 second-feet Apr. 25 (computed on basis of records for station near Marysville); minimum, 29 second-feet Nov. 24, 1911-29, 1939-42; Maximum discharge, 2,800 second-feet during last week in May 1922 (computed on basis of records for station near Marysville); minimum, 10 second-feet Nov. 27, 1919 (including flow of Clear Creek).

Remarks.- Records excellent except those for periods of no gage-height record, which are fair. Many diversions above station for irrigation. Flow affected by storage in Pits and Otter Creek Reservoirs.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|------|-----|------|-----|------|-------|
| 0.80 | 28 | 1.80 | 195 | 3.30 | 905 |
| 1.00 | 46 | 2.00 | 261 | 3.60 | 1,110 |
| 1.20 | 69 | 2.30 | 378 | 4.00 | 1,440 |
| 1.40 | 99 | 2.60 | 515 | | |
| 1.60 | 140 | 3.00 | 724 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|--------|-------|------|------|------|-------|
| 1 | 127 | 91 | 101 | 254 | 65 | 237 | 82 | a660 | 974 | 588 | 444 | 490 |
| 2 | 179 | 91 | 101 | 244 | 65 | 237 | 86 | a860 | 986 | 625 | 421 | 490 |
| 3 | 166 | 91 | 153 | 247 | 62 | 237 | 89 | a840 | 830 | 646 | 421 | 538 |
| 4 | 122 | 89 | 195 | 247 | 62 | 241 | 137 | a800 | 652 | 846 | 430 | 490 |
| 5 | 120 | 89 | 211 | 214 | 62 | 241 | 452 | a650 | a600 | 646 | 471 | 562 |
| 6 | 118 | 89 | 214 | 247 | 61 | 241 | 636 | a600 | a560 | 536 | 513 | 562 |
| 7 | 118 | 89 | 254 | 345 | 61 | 241 | 753 | a600 | a650 | 636 | 508 | 562 |
| 8 | 118 | 91 | 268 | 358 | 94 | 251 | 736 | a720 | a720 | 668 | 476 | 557 |
| 9 | 118 | 91 | 272 | 362 | 180 | 120 | 702 | a720 | 679 | 724 | 476 | 557 |
| 10 | 97 | 91 | 276 | 366 | 183 | 77 | 668 | a720 | 583 | 736 | 439 | 557 |
| 11 | 88 | 76 | 272 | 387 | 180 | 75 | 657 | a720 | 567 | 734 | 400 | 567 |
| 12 | 88 | 66 | 268 | 391 | 180 | 75 | 674 | a750 | 652 | 734 | 387 | 499 |
| 13 | 96 | 54 | 268 | 345 | 214 | 73 | 770 | 806 | 480 | 800 | 318 | 345 |
| 14 | 103 | 51 | 268 | 310 | 241 | 72 | 855 | 950 | 366 | 806 | 310 | 321 |
| 15 | 94 | 50 | 268 | 302 | 237 | 70 | 957 | 1,030 | 598 | 812 | 318 | 261 |
| 16 | 89 | 49 | 268 | 298 | 237 | 69 | 924 | 1,060 | 588 | 734 | 362 | 258 |
| 17 | 99 | 51 | 268 | 298 | 237 | 68 | a960 | 970 | 614 | 788 | 457 | 280 |
| 18 | 99 | 51 | 265 | 294 | 244 | 69 | a960 | 905 | 614 | 747 | 538 | 310 |
| 19 | 91 | 49 | 265 | 294 | 237 | 70 | a950 | 848 | 614 | 636 | 567 | 345 |
| 20 | 93 | 48 | 265 | 291 | 234 | 169 | a920 | 724 | 598 | 588 | 604 | 341 |
| 21 | 94 | 46 | 258 | 291 | 237 | 183 | a880 | 707 | 567 | 583 | 625 | 337 |
| 22 | 96 | 50 | 251 | 291 | 237 | 183 | a760 | 753 | 523 | 557 | 663 | 337 |
| 23 | 97 | 51 | 254 | 291 | 237 | 183 | a760 | 806 | 504 | 542 | 679 | 353 |
| 24 | 97 | 51 | 254 | 291 | 237 | 186 | a800 | 830 | 533 | 567 | 679 | 306 |
| 25 | 93 | 66 | 258 | 294 | 237 | 183 | a1,000 | 886 | 567 | 593 | 685 | 261 |
| 26 | 91 | 88 | 265 | 291 | 237 | 186 | a1,150 | 1,020 | 557 | 593 | 867 | 244 |
| 27 | 91 | 96 | 251 | 110 | 237 | 136 | a1,100 | 1,070 | 562 | 593 | 604 | 244 |
| 28 | 91 | 99 | 251 | 73 | 234 | 83 | a1,100 | 1,050 | 552 | 593 | 557 | 244 |
| 29 | 91 | 99 | 247 | 69 | - | 77 | a1,000 | 1,040 | 552 | 609 | 547 | 244 |
| 30 | 91 | 99 | 247 | 65 | - | 77 | a900 | 991 | 552 | 504 | 504 | 227 |
| 31 | 89 | - | 251 | 64 | - | 79 | - | 880 | - | 452 | 494 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 3,213 | 178 | 88 | 104 | 6,370 |
| November | 2,172 | 99 | 46 | 72 | 4,310 |
| December | 7,507 | 278 | 101 | 242 | 14,890 |
| Calendar year 1941 | 112,817 | 2,120 | 21 | 309 | 223,800 |
| January | 8,224 | 391 | 64 | 265 | 16,310 |
| February | 5,025 | 244 | 61 | 179 | 9,970 |
| March | 4,489 | 251 | 68 | 145 | 8,900 |
| April | 22,418 | 1,150 | 82 | 747 | 44,470 |
| May | 26,166 | 1,070 | 600 | 844 | 51,900 |
| June | 18,194 | 936 | 358 | 606 | 36,090 |
| July | 20,286 | 812 | 452 | 655 | 40,280 |
| August | 15,552 | 695 | 310 | 502 | 30,860 |
| September | 11,721 | 567 | 227 | 391 | 23,250 |
| Water year 1941-42 | 144,977 | 1,150 | 46 | 397 | 287,600 |

a No gage-height record; discharge computed on basis of records for station near Marysville.
 Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.
 To convert war time to standard time, subtract 1 hour.

Sevier River near Sigurd, Utah

Location.- Water-stage recorder, lat. 38°52', long. 111°57', in SW¹/₄ sec. 19, T. 22 S., R. 1 W., 200 feet downstream from bridge, half a mile downstream from Rockyford Dam, 2 miles northeast of Sigurd, and 5 miles upstream from Lost Creek.

Drainage area.- 3,540 square miles.

Records available.- July to September 1912, July 1914 to September 1942.

Average discharge.- 28 years (1914-42), 118 second-feet.

Extremes (regulated).- Maximum discharge during year, 908 second-feet Apr. 8 (gauge height, 3.98 feet); minimum, 2 second-feet Aug. 23 when reservoir gates were closed. 1914-42: Maximum discharge, 2,400 second-feet May 30, 1922 (gauge height, 8.1 feet, datum then in use) from rating curve extended above 600 second-feet on basis of maximum discharge for other Sevier River stations; practically no flow (seepage only) when Rockyford Reservoir gates are closed.

Remarks.- Records good. Entire flow usually diverted during low-water season; flow past station at such times represents seepage and return flow from canals. Flow also regulated by dams and reservoirs above station.

Rating table, water-year 1941-42, except period of ice effect (gauge height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|----|-----|-----|-----|-----|
| 0.6 | 1 | 1.2 | 29 | 2.5 | 271 |
| .7 | 3 | 1.5 | 61 | 3.0 | 438 |
| .8 | 5 | 1.8 | 107 | 3.5 | 650 |
| 1.0 | 14 | 2.2 | 190 | 4.0 | 950 |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 127 | 185 | 215 | 323 | 190 | 327 | 226 | 670 | 511 | 8 | 61 | 68 |
| 2 | 126 | 183 | 218 | 307 | 185 | 327 | 218 | 591 | 454 | 5 | 54 | 55 |
| 3 | 121 | 183 | 220 | 274 | 183 | 333 | 226 | 565 | 402 | 5 | 44 | 48 |
| 4 | 121 | 185 | 239 | 289 | 174 | 333 | 234 | 523 | 378 | 4 | 40 | 46 |
| 5 | 120 | 185 | 265 | b290 | 174 | 327 | 242 | 460 | 307 | 4 | 40 | 44 |
| 6 | 114 | 185 | 271 | b290 | 172 | 336 | 274 | 285 | 218 | 5 | 49 | 16 |
| 7 | 111 | 185 | 327 | 298 | 169 | 340 | 471 | 163 | 141 | 4 | 54 | 5 |
| 8 | 105 | 185 | 343 | 353 | 169 | 336 | 697 | 145 | 121 | 4 | 55 | 5 |
| 9 | 102 | 185 | 320 | 398 | 188 | 353 | 706 | 145 | 135 | 4 | 72 | 6 |
| 10 | 100 | 183 | 320 | 451 | 256 | 292 | 670 | 137 | 121 | 4 | 109 | 15 |
| 11 | 98 | 183 | 327 | 453 | 271 | a230 | 645 | 135 | 104 | 3 | 145 | 15 |
| 12 | 97 | 183 | 330 | 460 | 271 | a220 | 640 | 135 | 87 | 4 | 178 | 65 |
| 13 | 97 | 183 | 323 | 450 | 277 | a215 | 615 | 141 | 32 | 5 | 228 | 87 |
| 14 | 102 | 178 | 323 | 460 | 289 | 210 | 610 | 141 | 25 | 4 | 200 | 3 |
| 15 | 129 | 176 | 323 | 449 | 314 | 198 | 650 | 169 | 33 | 3 | 160 | 3 |
| 16 | 174 | 183 | 327 | 434 | 311 | 185 | 695 | 237 | 39 | 10 | 86 | 32 |
| 17 | 174 | 129 | 350 | 427 | 317 | 181 | 728 | 298 | 32 | 49 | 61 | 131 |
| 18 | 174 | 139 | 333 | 420 | 311 | 181 | 695 | 333 | 30 | 76 | 59 | 104 |
| 19 | 174 | 143 | 350 | 413 | 311 | 198 | 645 | 333 | 34 | 68 | 3 | 81 |
| 20 | 174 | 135 | 333 | 413 | 320 | 195 | 630 | 320 | 41 | 95 | 3 | 71 |
| 21 | 176 | 131 | 340 | 409 | 320 | 242 | 600 | 259 | 48 | 81 | 3 | 74 |
| 22 | 174 | 127 | 333 | 406 | 323 | 277 | 578 | 215 | 55 | 67 | 3 | 78 |
| 23 | 176 | 127 | 340 | 402 | 330 | 220 | 515 | 202 | 76 | 55 | 3 | 84 |
| 24 | 181 | 125 | 317 | 402 | 327 | 37 | 431 | 237 | 81 | 54 | 3 | 90 |
| 25 | 183 | 137 | 327 | 395 | 327 | 65 | 364 | 274 | 84 | 54 | 3 | 84 |
| 26 | 183 | 160 | 327 | 395 | 327 | 228 | 484 | 311 | 46 | 54 | 4 | 76 |
| 27 | 183 | 176 | 323 | 402 | 327 | 323 | 605 | 378 | 10 | 47 | 4 | 71 |
| 28 | 183 | 185 | 317 | 357 | 330 | 320 | 744 | 427 | 4 | 82 | 5 | 40 |
| 29 | 183 | 205 | 323 | 237 | - | 286 | 777 | 560 | 3 | 62 | 15 | 3 |
| 30 | 185 | 210 | 330 | 210 | - | 262 | 728 | 560 | 4 | 118 | 51 | 3 |
| 31 | 185 | - | 323 | 198 | - | 245 | - | 539 | - | 92 | 93 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 4,511 | 185 | 57 | 146 | 8,950 |
| November | 5,059 | 210 | 125 | 169 | 10,030 |
| December | 9,617 | 343 | 215 | 310 | 19,080 |
| Calendar year 1941 | 54,726 | 1,010 | 1 | 150 | 108,500 |
| January | 11,455 | 460 | 198 | 370 | 22,720 |
| February | 7,463 | 330 | 169 | 265 | 14,800 |
| March | 7,822 | 353 | 37 | 252 | 15,510 |
| April | 16,283 | 777 | 218 | 583 | 32,300 |
| May | 9,216 | 670 | 133 | 320 | 19,670 |
| June | 5,614 | 511 | 3 | 120 | 7,180 |
| July | 1,140 | 118 | 3 | 36.8 | 2,280 |
| August | 1,888 | 228 | 3 | 60.9 | 3,740 |
| September | 1,472 | 131 | 3 | 49.1 | 2,920 |
| Water year 1941-42 | 80,240 | 777 | 3 | 220 | 159,200 |

a No gage-height record; discharge computed on basis of records for stations near Gunnison and near Sevier.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

SEVIER LAKE BASIN

Sevier River below San Pitch River, near Gunnison, Utah

Location.- Water-stage recorder, lat. $39^{\circ}09'$, long. $111^{\circ}52'$, in NE $\frac{1}{4}$ sec. 14, T. 19 S., R. 1 W., 1,000 feet downstream from San Pitch River and 3 miles west of Gunnison.

Drainage area.- 4,880 square miles.

Records available.- October 1917 to September 1942.

Average discharge.- 25 years, 227 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,050 second-feet Apr. 15 (gage height, 4.23 feet); minimum, 73 second-feet July 8 (gage height, 1.32 feet).

1917-42: Maximum discharge, 2,620 second-feet June 1, 1922 (gage height, 5.68 feet, present datum); minimum daily discharge, 8 second-feet July 13-17, Sept. 6, 1934.

Remarks.- Records good except those above 600 second-feet and those for period of no gage-height record, which are fair. Flow regulated by operation of reservoirs and by many diversions for irrigation above station. Most of flow diverted above station during irrigation season.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|-------|-----|------|------|------|-------|
| 1 | 267 | 339 | 349 | a508 | 419 | 548 | 512 | 860 | 900 | 103 | 171 | 171 |
| 2 | 272 | 336 | 354 | a500 | 419 | 548 | 525 | 866 | 778 | 99 | 156 | 161 |
| 3 | 316 | 336 | 357 | a480 | 419 | 548 | 528 | 849 | 764 | 91 | 147 | 161 |
| 4 | 300 | 331 | 363 | a460 | 419 | 508 | 541 | 800 | 708 | 91 | 138 | 142 |
| 5 | 286 | 325 | 374 | a460 | 455 | 499 | 545 | 774 | 656 | 104 | 134 | 142 |
| 6 | 297 | 322 | 389 | a470 | 458 | 518 | 551 | 732 | 598 | 103 | 136 | 152 |
| 7 | 280 | 316 | 401 | a450 | 452 | 495 | 558 | 695 | 512 | 111 | 161 | 154 |
| 8 | 291 | 311 | 422 | a505 | 447 | 515 | 626 | 591 | 422 | 119 | 155 | 125 |
| 9 | 286 | 311 | 476 | a550 | 454 | 554 | 744 | 522 | 371 | 88 | 155 | 120 |
| 10 | 272 | 308 | 479 | 605 | 470 | 608 | 827 | 502 | 331 | 87 | 165 | 104 |
| 11 | 285 | 308 | 479 | 608 | 522 | 608 | 927 | 486 | 291 | 87 | 186 | 101 |
| 12 | 275 | 311 | 486 | 616 | 525 | 585 | 976 | 451 | 450 | 78 | 230 | 110 |
| 13 | 302 | 311 | 495 | 630 | 528 | 612 | 969 | 444 | 264 | 74 | 254 | 136 |
| 14 | 374 | 308 | 495 | 633 | 528 | 626 | 998 | 404 | 200 | 74 | 291 | 155 |
| 15 | 339 | 300 | 492 | 635 | 535 | 602 | 1,030 | 374 | 188 | 74 | 280 | 125 |
| 16 | 322 | 305 | 508 | 633 | 538 | 595 | 1,020 | 395 | 161 | 110 | 254 | 122 |
| 17 | 345 | 311 | 515 | 630 | 548 | 595 | 990 | 444 | 149 | 104 | 200 | 129 |
| 18 | 348 | 297 | 508 | 622 | 554 | 591 | 976 | 479 | 151 | 194 | 165 | 188 |
| 19 | 342 | 302 | 499 | 616 | 548 | 598 | 962 | 499 | 146 | 173 | 155 | 194 |
| 20 | 351 | 297 | 502 | 612 | 538 | 598 | 927 | 522 | 134 | 194 | 134 | 198 |
| 21 | 339 | 283 | 508 | 608 | 531 | 585 | 908 | 568 | 132 | 203 | 115 | 188 |
| 22 | 342 | 278 | 512 | 602 | 528 | 574 | 908 | 605 | 134 | 194 | 106 | 186 |
| 23 | 359 | 287 | 489 | 605 | 531 | 531 | 934 | 628 | 140 | 171 | 104 | 183 |
| 24 | 348 | 257 | 463 | 612 | 541 | 444 | 908 | 622 | 147 | 153 | 104 | 190 |
| 25 | 357 | 257 | 467 | 622 | 545 | 316 | 838 | 623 | 144 | 144 | 113 | 205 |
| 26 | 348 | 280 | 489 | 626 | 545 | 305 | 756 | 652 | 146 | 131 | 127 | 196 |
| 27 | 339 | 294 | 492 | 626 | 545 | 429 | 720 | 696 | 134 | 131 | 111 | 190 |
| 28 | 354 | 314 | 486 | 630 | 551 | 495 | 740 | 724 | 122 | 140 | 106 | 198 |
| 29 | 357 | 319 | 486 | 574 | - | 512 | 774 | 748 | 116 | 167 | 103 | 167 |
| 30 | 348 | 336 | 505 | 457 | - | 518 | 822 | 782 | 108 | 155 | 104 | 123 |
| 31 | 342 | - | 515 | 422 | - | 512 | - | 816 | - | 177 | 131 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 9,947 | 374 | 267 | 321 | 19,730 |
| November..... | 9,170 | 339 | 257 | 306 | 18,190 |
| December..... | 14,554 | 515 | 348 | 463 | 28,470 |
| Calendar year 1941..... | 105,447 | 1,450 | 81 | 289 | 209,150 |
| January..... | 17,635 | 633 | 422 | 569 | 34,980 |
| February..... | 14,033 | 554 | 419 | 501 | 27,830 |
| March..... | 16,672 | 626 | 305 | 535 | 32,870 |
| April..... | 24,000 | 1,030 | 512 | 800 | 47,600 |
| May..... | 19,154 | 968 | 374 | 618 | 35,990 |
| June..... | 9,397 | 800 | 108 | 313 | 18,640 |
| July..... | 3,928 | 203 | 74 | 127 | 7,790 |
| August..... | 4,890 | 291 | 103 | 158 | 9,700 |
| September..... | 4,654 | 205 | 101 | 155 | 9,230 |
| Water year 1941-42..... | 147,734 | 1,030 | 74 | 406 | 293,000 |

a No gage-height record; discharge based on weather records and records for stations near Marysvale and Gunnison.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Sevier Bridge Reservoir near Juab, Utah

Location.- Staff gage, lat. 39°22', long. 112°02', in NW 1/4 sec. 1, T. 17 S., R. 2 W., at Sevier Bridge Dam, 13 miles southwest of Juab.

Drainage area.- 5,120 square miles.

Records available.- January 1914 to September 1942.

Extremes.- Maximum contents during year, 236,000 acre-feet May 3 (gage height, 80.00 feet); minimum, 59,540 acre-feet Oct. 1 (gage height, 48.15 feet)
1914-42: Maximum contents, 251,000 acre-feet Apr. 19, 20, 1922 (gage height, 80.0 feet) from former capacity table; no storage at times during 1927-28, 1930-38.

Remarks.- Reservoir was formed by a 30-foot earth-fill dam and storage began about 1904; dam ultimately raised to 90 feet by June 1916. Capacity, 236,000 acre-feet between gage heights 6 feet (approximate bottom of outlet tunnel) and 80.0 feet (top of flash-board on spillway). No dead storage. Figures given herein represent total contents. Water is used for irrigation. Gage read to half-tenths about 9 a.m. daily; contents are as of that time.

Revisions.- Revised figures of change in contents during month of September and water year 1940-41 superseding those published in Water-Supply Paper 930, page 73 are as follows: September, -3,800 acre-feet; water year 1940-41, +33,560 acre-feet.

Contents, in acre-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 59,540 | 79,700 | 99,880 | 126,800 | 159,000 | 183,800 | 213,500 | 233,900 | 218,500 | 189,400 | 150,500 | 130,400 |
| 2 | 60,080 | 80,640 | 99,450 | 127,700 | 159,300 | 186,000 | 214,500 | 234,400 | 217,500 | 187,100 | 149,800 | 129,600 |
| 3 | 60,360 | 81,420 | 99,360 | 127,700 | 160,100 | 185,900 | 216,400 | 236,000 | 216,400 | 186,700 | 148,700 | 128,300 |
| 4 | 61,160 | 82,040 | 100,500 | 128,800 | 160,800 | 186,700 | 216,400 | 234,900 | 215,400 | 185,000 | 148,400 | 127,700 |
| 5 | 61,840 | 82,500 | 101,100 | 129,500 | 161,600 | 187,600 | 215,400 | 234,900 | 215,000 | 184,200 | 148,000 | 127,100 |
| 6 | 62,240 | 82,980 | 102,100 | 130,100 | 162,700 | 188,500 | 215,400 | 234,400 | 214,500 | 183,300 | 147,400 | 126,300 |
| 7 | 62,560 | 83,620 | 103,000 | 130,700 | 163,500 | 189,400 | 215,400 | 233,900 | 213,500 | 182,000 | 146,700 | 125,600 |
| 8 | 63,340 | 84,570 | 104,400 | 131,900 | 164,300 | 190,300 | 215,400 | 233,400 | 213,000 | 180,000 | 145,800 | 124,800 |
| 9 | 63,820 | 85,200 | 106,200 | 132,200 | 165,000 | 191,600 | 217,500 | 232,300 | 212,500 | 178,700 | 145,600 | 124,200 |
| 10 | 64,310 | 86,000 | 107,100 | 133,800 | 166,900 | 192,000 | 218,000 | 230,700 | 212,000 | 176,600 | 145,200 | 123,700 |
| 11 | 65,430 | 86,490 | 108,200 | 135,000 | 168,600 | 193,800 | 218,500 | 229,700 | 211,600 | 175,000 | 144,500 | 123,100 |
| 12 | 65,580 | 86,970 | 108,600 | 135,000 | 167,800 | 194,700 | 220,000 | 228,600 | 210,800 | 173,000 | 144,200 | 122,600 |
| 13 | 66,130 | 87,780 | 109,200 | 137,600 | 168,600 | 196,500 | 220,500 | 228,100 | 210,600 | 170,500 | 143,800 | 122,800 |
| 14 | 66,690 | 88,430 | 109,400 | 138,600 | 169,400 | 197,400 | 222,000 | 228,500 | 212,000 | 168,200 | 143,500 | 122,500 |
| 15 | 67,540 | 89,090 | 109,600 | 139,800 | 170,500 | 198,300 | 223,000 | 228,000 | 210,600 | 165,400 | 143,500 | 122,300 |
| 16 | 68,250 | 89,590 | 111,400 | 140,800 | 171,800 | 199,300 | 224,500 | 225,600 | 209,600 | 164,300 | 143,800 | 122,000 |
| 17 | 69,900 | 90,450 | 112,400 | 142,200 | 172,600 | 200,600 | 225,000 | 225,600 | 208,700 | 162,300 | 143,800 | 121,800 |
| 18 | 69,980 | 90,930 | 113,100 | 143,200 | 173,400 | 201,100 | 225,500 | 225,500 | 206,700 | 161,200 | 143,500 | 121,600 |
| 19 | 70,580 | 91,770 | 114,900 | 144,200 | 174,200 | 202,100 | 227,000 | 225,500 | 204,800 | 160,500 | 142,900 | 121,600 |
| 20 | 71,000 | 92,460 | 115,700 | 146,000 | 175,000 | 203,400 | 228,600 | 225,500 | 204,400 | 159,700 | 141,600 | 121,800 |
| 21 | 71,440 | 92,980 | 116,700 | 147,000 | 176,200 | 204,800 | 229,700 | 225,500 | 203,400 | 159,000 | 140,800 | 121,800 |
| 22 | 72,170 | 93,340 | 117,700 | 147,700 | 176,600 | 205,800 | 230,700 | 225,500 | 201,100 | 158,600 | 139,800 | 121,800 |
| 23 | 72,900 | 94,220 | 118,800 | 148,400 | 178,300 | 206,700 | 230,200 | 225,500 | 200,200 | 157,600 | 138,900 | 121,800 |
| 24 | 73,790 | 94,570 | 119,600 | 149,400 | 179,500 | 207,700 | 231,200 | 225,000 | 198,800 | 157,500 | 138,200 | 121,800 |
| 25 | 74,540 | 95,100 | 120,400 | 150,800 | 179,900 | 208,700 | 232,800 | 224,500 | 196,500 | 156,700 | 137,600 | 122,000 |
| 28 | 75,140 | 96,820 | 120,900 | 152,400 | 180,800 | 209,200 | 232,800 | 223,500 | 195,600 | 156,000 | 136,900 | 122,300 |
| 27 | 76,040 | 96,210 | 122,000 | 153,400 | 181,800 | 210,100 | 233,400 | 222,500 | 194,700 | 155,300 | 136,300 | 122,600 |
| 26 | 76,800 | 96,970 | 122,800 | 154,100 | 182,500 | 211,600 | 233,400 | 221,500 | 193,400 | 154,500 | 134,400 | 122,800 |
| 29 | 77,710 | 97,540 | 123,700 | 156,000 | - | 212,000 | 233,400 | 220,500 | 192,000 | 153,400 | 133,400 | 123,100 |
| 30 | 78,320 | 98,500 | 124,500 | 156,700 | - | 212,500 | 233,800 | 220,000 | 191,200 | 152,700 | 132,600 | 123,400 |
| 31 | 79,080 | - | 125,700 | 157,100 | - | 213,000 | - | 219,000 | - | 151,200 | 131,300 | - |

Monthly gage height and contents, water year October 1941 to September 1942

| Date | Gage-height (feet) | Contents (acre-feet) | Change in contents during month (acre-feet) |
|----------------------|--------------------|----------------------|---|
| Oct. 1..... | 48.15 | 59,540 | +80,160 |
| Nov. 1..... | 56.15 | 79,700 | +19,180 |
| Dec. 1..... | 60.85 | 98,880 | +27,920 |
| Calendar year 1941.. | - | - | +70,300 |
| Jan. 1..... | 66.65 | 126,800 | +32,200 |
| Feb. 1..... | 71.45 | 159,000 | +24,800 |
| Mar. 1..... | 74.55 | 183,000 | +29,700 |
| Apr. 1..... | 77.80 | 213,500 | +20,400 |
| May 1..... | 79.80 | 233,900 | -15,400 |
| June 1..... | 78.30 | 218,500 | -29,100 |
| July 1..... | 75.20 | 189,400 | -38,900 |
| Aug. 1..... | 70.30 | 150,500 | -20,100 |
| Sept. 1..... | 67.25 | 130,400 | -6,700 |
| Oct. 1..... | 66.10 | 123,700 | - |
| Water year 1941-42.. | - | - | +64,160 |

Time basis: Mountain time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

SEVIER LAKE BASIN

Sevier River near Juab, Utah

Location.- Water-stage recorder, lat. 39°22', long. 112°02'; for period October to March at site 300 feet downstream from Sevier Bridge Dam in NW¼ sec. 1, T. 17 S., R. 2 W., and for period April to September at site 1,600 feet downstream from dam in NE¼ sec. 2, T. 17 S., R. 2 W.; and 11 miles southwest of Juab.

Drainage area.- 5,120 square miles.

Records available.- September 1911 to September 1942.

Average discharge.- 31 years, 253 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,190 second-feet July 15 (gage height, 5.41 feet); minimum daily, 5 second-feet or less for several days in December when reservoir gates were closed.

1911-42: Maximum discharge, 2,140 second-feet June 2, 1922 (gage height, 8.50 feet, downstream site and datum); practically no flow at times when reservoir gates are closed.

Remarks.- Records good. No diversions between this station and station near Gunnison. Flow regulated by Sevier Bridge Reservoir (see preceding page).

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-------|-------|-------|------|-------|
| 1 | 158 | 6 | 6 | 6 | 6 | 6 | 10 | 580 | 1,080 | 682 | 514 | 557 |
| 2 | 70 | 6 | 6 | 6 | 6 | 6 | 138 | 580 | 1,080 | 647 | 514 | 563 |
| 3 | h6 | 6 | 6 | 6 | 6 | 6 | 304 | 800 | 1,080 | 644 | 448 | 554 |
| 4 | h6 | 6 | 6 | 6 | 6 | 6 | 342 | 955 | 1,080 | 644 | 395 | 543 |
| 5 | 6 | 6 | 6 | 6 | 6 | 6 | a344 | 958 | 1,070 | 644 | 388 | 534 |
| 6 | h6 | 6 | 5 | 6 | 6 | 6 | a347 | 951 | 1,070 | 644 | 386 | 528 |
| 7 | h6 | 6 | 5 | 6 | 6 | 6 | a349 | 944 | 900 | 730 | 383 | 467 |
| 8 | 6 | 6 | 5 | 6 | 6 | 6 | a352 | 940 | 487 | 859 | 385 | 386 |
| 9 | 6 | 6 | 5 | 6 | 6 | 6 | a354 | 934 | 194 | 838 | 351 | 367 |
| 10 | 6 | 6 | 5 | 6 | 6 | 6 | a356 | 923 | 181 | 928 | 351 | 362 |
| 11 | h6 | 6 | 5 | 6 | 6 | 6 | a358 | 772 | 260 | 1,130 | 383 | 312 |
| 12 | 6 | 6 | 5 | 6 | 6 | 6 | a360 | 669 | 270 | 1,170 | 355 | 256 |
| 13 | 6 | 6 | 5 | 6 | 6 | 6 | 362 | 663 | 476 | 1,160 | 328 | 225 |
| 14 | 6 | 6 | 5 | 6 | 6 | 6 | 364 | 656 | 727 | 1,130 | 328 | 190 |
| 15 | 6 | 6 | 5 | 6 | 6 | 7 | 362 | 656 | 580 | 1,160 | 350 | 190 |
| 16 | 6 | 6 | 5 | 6 | 6 | 7 | 364 | 595 | 509 | 1,160 | 332 | 190 |
| 17 | 6 | 6 | 5 | 6 | 6 | 7 | 367 | 581 | 512 | 861 | 332 | 186 |
| 18 | 6 | 6 | 5 | 6 | 6 | 7 | 371 | 481 | 557 | 543 | 393 | 181 |
| 19 | 6 | 6 | 5 | 6 | 6 | 7 | 388 | 433 | 663 | 422 | 441 | 166 |
| 20 | 6 | 6 | 5 | 6 | 6 | 8 | 388 | 433 | 692 | 412 | 462 | 156 |
| 21 | 6 | 6 | 5 | 6 | 6 | 8 | 395 | 428 | 692 | 412 | 512 | 156 |
| 22 | 6 | 6 | 5 | 6 | 6 | 8 | 405 | 475 | 720 | 410 | 543 | 159 |
| 23 | 6 | 6 | 5 | 6 | 6 | 8 | 428 | 663 | 769 | 410 | 540 | 159 |
| 24 | 6 | 6 | 5 | 6 | 6 | 9 | 428 | 727 | 706 | 410 | 534 | 94 |
| 25 | 6 | 6 | 5 | 6 | 6 | 9 | 492 | 818 | 659 | 478 | 560 | 32 |
| 26 | 6 | h6 | 5 | 6 | 6 | 9 | 528 | 804 | 713 | 537 | 580 | 30 |
| 27 | h6 | 6 | 5 | 6 | 6 | 9 | 543 | 1,020 | 786 | 540 | 572 | 28 |
| 28 | 6 | 6 | 5 | 6 | 6 | 9 | 543 | 1,060 | 724 | 537 | 566 | 27 |
| 29 | 6 | 6 | 5 | 6 | 6 | 9 | 540 | 1,090 | 696 | 537 | 569 | 23 |
| 30 | *6 | 6 | 5 | 6 | 6 | 10 | 428 | 1,080 | 692 | 526 | 563 | 23 |
| 31 | 6 | - | 5 | 6 | - | 10 | - | 1,080 | - | 517 | 554 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 402 | 158 | 6 | 15.0 | 797 |
| November | 180 | 6 | 6 | 6.0 | 357 |
| December | 160 | 6 | 6 | 5.2 | 317 |
| Calendar year 1941 | 65,512 | 1,060 | 2 | 179 | 129,900 |
| January | 186 | 6 | 6 | 6.0 | 369 |
| February | 168 | 6 | 6 | 6.0 | 333 |
| March | 325 | 10 | 6 | 7.3 | 446 |
| April | 11,310 | 543 | 10 | 377 | 22,430 |
| May | 23,659 | 1,080 | 428 | 763 | 46,930 |
| June | 20,625 | 1,080 | 181 | 688 | 40,910 |
| July | 21,688 | 1,170 | 410 | 700 | 43,020 |
| August | 13,950 | 580 | 328 | 450 | 27,670 |
| September | 7,644 | 563 | 23 | 255 | 15,160 |
| Water year 1941-42 | 100,197 | 1,170 | 5 | 275 | 198,700 |

* Discharge measurement made on this day.

a No gage-height record; discharge interpolated.

b Discharge computed from staff-gage reading.

Note. Gates at dam closed Oct. 3 to Apr. 1, recorder not in operation except Oct. 29 to Nov. 6, only flow passing station is seepage. Discharge during this period based on staff-gage readings and discharge measurements on days indicated and interpolation.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

SEVIER LAKE BASIN.

East Fork of Sevier River near Kingston, Utah

Location.- Water-stage recorder, lat. 38°12', long. 112°09', in SW¼ sec. 13, T. 30 S., R. 3 W., 1,000 feet downstream from bridge on State Highway 22, 1.7 miles east of Kingston, and 4.1 miles above mouth.

Drainage area.- 1,260 square miles.

Records available.- March 1913 to September 1942. May to September 1912 at site 2½ miles downstream, below all diversions.

Average discharge.- 29 years, 91.1 second-feet.

Extremes (regulated).- Maximum discharge during year, 625 second-feet May 11 (gage height, 2.95 feet); minimum daily, 12 second-feet Feb. 19, 23, during period of ice effect.

1913-42: Maximum discharge, 2,030 second-feet May 12, 1941 (gage height, 5.05 feet); minimum, 6 second-feet Oct. 30, 1930.

Remarks.- Records good except those for periods of ice effect and no gage-height record, which are fair. Diversions above and below station for irrigation. Station is above diversions in vicinity of Kingston. Flow regulated at Otter Creek Reservoir (capacity, 52,600 acre-feet), 8 miles upstream.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 29 | a70 | a20 | | b18 | b16 | 228 | 372 | 189 | 83 | 216 | 203 |
| 2 | 29 | a70 | 19 | | b20 | 15 | 250 | 316 | 74 | 86 | 218 | 201 |
| 3 | 29 | a70 | 21 | | 20 | 17 | 300 | 253 | 59 | 82 | 218 | 201 |
| 4 | 28 | a70 | 21 | | 21 | 21 | 368 | 201 | 63 | 82 | 216 | 201 |
| 5 | 28 | a70 | a18 | | 21 | 24 | 413 | 186 | 66 | 82 | 216 | 198 |
| 6 | 28 | a65 | a18 | | 21 | 27 | 458 | 170 | 66 | 80 | 216 | 198 |
| 7 | 28 | a60 | a19 | b15 | 21 | 26 | 436 | 178 | 69 | 77 | 216 | 198 |
| 8 | a57 | a60 | a18 | | 21 | 26 | 413 | 198 | 66 | 80 | 216 | 196 |
| 9 | a57 | a55 | a18 | | 20 | 28 | 372 | 261 | 65 | 80 | 218 | 194 |
| 10 | a57 | a55 | a17 | | 20 | 26 | 372 | 506 | 62 | 87 | 220 | 194 |
| 11 | a50 | | a18 | | 20 | 29 | 405 | 600 | 43 | 120 | 220 | 194 |
| 12 | a50 | | *19 | | 22 | 37 | 452 | 610 | 42 | a120 | 218 | 194 |
| 13 | a80 | | 19 | | b20 | *30 | 435 | 568 | 40 | a120 | 216 | 192 |
| 14 | 94 | | 19 | | b18 | a28 | 468 | 515 | 40 | a120 | 213 | 192 |
| 15 | 62 | | 19 | | b18 | a26 | 510 | 440 | 39 | a120 | 213 | 192 |
| 16 | 54 | | 20 | | b15 | a25 | 568 | 375 | 39 | a120 | 213 | 192 |
| 17 | 54 | | 21 | | b14 | a24 | 452 | 364 | 38 | a120 | 213 | 192 |
| 18 | 56 | | 19 | | b13 | a26 | 428 | 361 | 36 | a120 | 216 | 192 |
| 19 | 58 | | 21 | | b12 | a24 | 409 | 372 | 35 | a120 | 218 | 192 |
| 20 | 61 | | 20 | | b13 | a22 | 401 | 375 | 35 | a120 | 220 | 189 |
| 21 | 69 | a20 | 20 | | b14 | a25 | 350 | 409 | 34 | a120 | 216 | 189 |
| 22 | 69 | | b19 | | b13 | a35 | 267 | 493 | 34 | a120 | 216 | 189 |
| 23 | 76 | | b19 | b18 | b12 | a40 | 333 | 456 | 33 | a120 | 213 | 187 |
| 24 | 86 | | b18 | | b13 | a50 | 401 | 416 | 78 | a120 | 231 | 187 |
| 25 | 73 | | b17 | | b14 | a45 | 372 | 372 | 87 | a120 | 223 | 186 |
| 26 | 74 | | b17 | | b15 | a40 | 390 | 361 | 80 | 139 | 213 | 185 |
| 27 | 76 | | b16 | | b14 | a55 | 436 | 372 | 74 | 186 | 208 | 180 |
| 28 | 77 | | b16 | | b16 | a80 | 416 | 350 | 71 | 223 | 208 | 180 |
| 29 | 83 | | b19 | | - | a100 | 413 | 270 | 71 | 220 | 203 | 180 |
| 30 | 78 | | b18 | | - | a150 | 397 | 264 | 74 | 218 | 203 | 179 |
| 31 | 76 | | b18 | | - | a200 | - | 236 | - | 216 | 203 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,734 | 94 | 27 | 55.9 | 3,440 |
| November..... | 1,045 | 70 | - | 34.8 | 2,070 |
| December..... | 581 | 21 | 18 | 18.7 | 1,160 |
| Calendar year 1941..... | 33,925 | 1,740 | - | 92.9 | 67,500 |
| January..... | 613 | - | - | 16.5 | 1,020 |
| February..... | 477 | 22 | 12 | 17.0 | 946 |
| March..... | 1,314 | 200 | 15 | 42.4 | 2,610 |
| April..... | 11,941 | 566 | 228 | 398 | 23,680 |
| May..... | 11,217 | 610 | 170 | 362 | 22,250 |
| June..... | 1,801 | 189 | 33 | 80.0 | 3,570 |
| July..... | 3,819 | 223 | 77 | 123 | 7,570 |
| August..... | 6,684 | 231 | 203 | 215 | 13,220 |
| September..... | 6,745 | 203 | 178 | 192 | 11,400 |
| Water year 1941-42..... | 46,851 | 610 | 12 | 128 | 92,930 |

* Winter discharge measurement made on this day.
 a No gage-height record; discharge computed on basis of Water Commissioner's notes, records for Otter Creek at Sevier, Sevier River at Kingston and at Hatch, and weather records.
 b Stage-discharge relation affected by ice (no gage-height record Dec. 28 to Jan. 14, Jan. 16-25, Feb. 17-28; discharge computed on same basis noted for "a").
 Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

SEVIER LAKE BASIN

Clear Creek at Sevier, Utah

Location.— Water-stage recorder, lat. 38°34'55", long. 112°15'25", in SE $\frac{1}{4}$ sec. 32, T. 25 N., R. 4 W., at bridge on U. S. Highway 89, 600 feet upstream from mouth and 0.3 mile south of Sevier.

Drainage area.— 169 square miles.

Records available.— February 1912 to September 1919 and October 1940 to September 1942 in reports of Geological Survey. April 1934 to September 1941 (irrigation seasons only) in reports of Sevier River water commissioner.

Extremes.— Maximum discharge during year, 275 second-feet May 27 (gage height, 3.01 feet); minimum, 3 second-feet many days in August and September.
1912-19, 1940-42: Maximum discharge observed, 407 second-feet Aug. 7, 1941 (gage height, 4.05 feet); no flow Aug. 28, 1913.

Remarks.— Records good except those for periods of ice effect and no gage-height record, which are fair. Station is below all diversions for irrigation. Practically entire flow is diverted each year during latter part of irrigation season.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 8 | 20 | 23 | b14 | 18 | 14 | 88 | 68 | 182 | 52 | 7 | 6 |
| 2 | 8 | 23 | 21 | b13 | 18 | 15 | 107 | 66 | 180 | 52 | 7 | 6 |
| 3 | 9 | 23 | 22 | b12 | 18 | 18 | 132 | 74 | 174 | 52 | 6 | 4 |
| 4 | 8 | 22 | 25 | b13 | 18 | 15 | 152 | 97 | 167 | 52 | 6 | 3 |
| 5 | 8 | 20 | 15 | b14 | 18 | 18 | 129 | 80 | 163 | 52 | 5 | 3 |
| 6 | 8 | 18 | 17 | 16 | 18 | 22 | 95 | 74 | 163 | 50 | 5 | 3 |
| 7 | 8 | 19 | 18 | 17 | 18 | 14 | 86 | 80 | 161 | 47 | 4 | 3 |
| 8 | 8 | 20 | 17 | 18 | 18 | 20 | 127 | 97 | 166 | 47 | 4 | 3 |
| 9 | 8 | 20 | 16 | 18 | 14 | 28 | 145 | 132 | 140 | 44 | 4 | 3 |
| 10 | 8 | 19 | 22 | 16 | 20 | 31 | 147 | 162 | 152 | 34 | 5 | 3 |
| 11 | a8 | 16 | 20 | 16 | 12 | 30 | 131 | 156 | 138 | 27 | 5 | 3 |
| 12 | a8 | 16 | 21 | 17 | 18 | 30 | 127 | 150 | 141 | 24 | 5 | 3 |
| 13 | a14 | 16 | 21 | 18 | 14 | 28 | 158 | 127 | 134 | 23 | 4 | 3 |
| 14 | 20 | 16 | 19 | 16 | 16 | 25 | 165 | 107 | 123 | 20 | 4 | 3 |
| 15 | 20 | 15 | 18 | 16 | 12 | 23 | 170 | 97 | 116 | 18 | 4 | 3 |
| 16 | 19 | 16 | 19 | 18 | b12 | 23 | 158 | 93 | 111 | 19 | 3 | 3 |
| 17 | 16 | 17 | 20 | 16 | b12 | 19 | 147 | 86 | 125 | 19 | 3 | 3 |
| 18 | 18 | 16 | 16 | 16 | b11 | 22 | 127 | 73 | 131 | 19 | 3 | 3 |
| 19 | 18 | 19 | 18 | 16 | b11 | 21 | 107 | 69 | 132 | 18 | 3 | 3 |
| 20 | 19 | 18 | 16 | 11 | b12 | 16 | 97 | 98 | 125 | 16 | 3 | 3 |
| 21 | 20 | 12 | 19 | 15 | b13 | 19 | 93 | 156 | 118 | 16 | 4 | 3 |
| 22 | 18 | 16 | 16 | 19 | b12 | 26 | 114 | 190 | 113 | 15 | 4 | 3 |
| 23 | 20 | 11 | 10 | 18 | b12 | 37 | 140 | 214 | 113 | 14 | 3 | 3 |
| 24 | 20 | 15 | 17 | 18 | b13 | 39 | 127 | 223 | 107 | 14 | 3 | 3 |
| 25 | 16 | 15 | 16 | 18 | b13 | 31 | 111 | 220 | 100 | 12 | 6 | 3 |
| 26 | 15 | 16 | 16 | 18 | 14 | 28 | 113 | 251 | 92 | 11 | 5 | 4 |
| 27 | 16 | 18 | 13 | 17 | 16 | 24 | 114 | 287 | 81 | 10 | 5 | 4 |
| 28 | 19 | 21 | 15 | 18 | 16 | 29 | 105 | 245 | 73 | 11 | 5 | 3 |
| 29 | 18 | 21 | 17 | 18 | - | 32 | 85 | 220 | 64 | 12 | 5 | 3 |
| 30 | 16 | 22 | 18 | 14 | - | 45 | 73 | 208 | 58 | 10 | 5 | 3 |
| 31 | 16 | - | 17 | 18 | - | 64 | - | 195 | - | 9 | 5 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 442 | 20 | 9 | 14.3 | 877 |
| November..... | 535 | 23 | 11 | 17.3 | 1,060 |
| December..... | 558 | 25 | 10 | 18.0 | 1,110 |
| Calendar year 1941..... | 15,269 | 255 | 3 | 41.8 | 30,290 |
| January..... | 501 | 19 | 11 | 16.2 | 994 |
| February..... | 416 | 20 | 11 | 14.9 | 825 |
| March..... | 906 | 64 | 14 | 25.0 | 1,600 |
| April..... | 3,651 | 170 | 73 | 122 | 7,240 |
| May..... | 4,333 | 267 | 66 | 140 | 8,590 |
| June..... | 3,815 | 182 | 58 | 127 | 7,570 |
| July..... | 819 | 52 | 9 | 26.4 | 1,620 |
| August..... | 139 | 7 | 3 | 4.5 | 275 |
| September..... | 97 | 5 | 3 | 3.2 | 192 |
| Water year 1941-42..... | 16,112 | 287 | 3 | 44.1 | 31,960 |

a No gage-height record; discharge computed on basis of Sevier River stations and weather records.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

BEAVER RIVER BASIN

Beaver River near Beaver, Utah

Location.- water-stage recorder, lat. 38°17', long. 112°34', in S41SW¼ sec. 17, T. 29 N., R. 6 W., at Fishlake National Forest boundary, three-quarters of a mile downstream from Bakers Canyon, and 4¼ miles east of Beaver.

Drainage area.- 82 square miles.

Records available.- June to September 1906, March 1914 to September 1942.

Average discharge.- 28 years (1914-42), 56.5 second-feet.

Extremes.- Maximum discharge during year, 681 second-feet May 25 (gage height, 3.92 feet); minimum, 14 second-feet Jan. 22.
1914-42: Maximum discharge, 1,080 second-feet July 22, 1936 (gage height, 7.27 feet, site and datum then in use), from rating curve extended above 500 second-feet; minimum, 5 second-feet Aug. 29, 1931 and Nov. 30, 1939.

Remarks.- Records good except those for periods of ice effect, which are fair. No diversions above station for irrigation. Water diverted by Telluride Power Co. but returned to stream several miles above station. Flow slightly regulated by power plants and several small reservoirs.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 31 | 35 | 30 | 27 | 25 | 24 | 37 | 70 | 340 | 82 | 37 | 29 |
| 2 | 31 | 34 | 29 | b27 | 24 | 24 | 44 | 66 | 321 | 79 | 35 | 29 |
| 3 | 32 | 35 | 29 | b25 | 27 | 25 | 52 | 63 | 294 | 75 | 34 | 28 |
| 4 | 33 | 34 | 28 | b24 | 27 | 25 | 59 | 69 | 266 | 76 | 34 | 28 |
| 5 | 31 | 34 | 28 | b25 | 26 | 26 | 51 | 70 | 270 | 74 | 34 | 27 |
| 6 | 32 | 34 | 30 | b26 | 26 | 27 | 46 | 80 | 266 | 73 | 36 | 27 |
| 7 | 32 | 35 | 28 | b28 | 25 | 26 | 42 | 102 | 240 | 73 | 35 | 28 |
| 8 | 32 | 34 | 28 | 30 | 26 | 27 | 45 | 138 | 215 | 70 | 37 | 28 |
| 9 | 30 | 33 | 29 | 28 | 24 | 28 | 52 | 183 | 192 | 68 | 37 | 27 |
| 10 | 29 | 33 | 28 | 28 | 26 | 27 | 61 | 194 | 200 | 66 | 38 | 24 |
| 11 | 30 | 35 | 28 | 26 | 26 | 27 | 63 | 197 | 200 | 64 | 34 | 25 |
| 12 | 31 | 35 | 28 | 28 | 26 | 27 | 73 | 183 | 183 | 61 | 39 | 28 |
| 13 | 31 | 35 | 28 | 28 | b24 | 27 | 84 | 152 | 170 | 64 | 34 | 27 |
| 14 | 44 | 33 | 28 | 28 | b24 | 25 | 105 | 136 | 162 | 60 | 34 | 27 |
| 15 | 40 | 34 | 28 | 28 | b25 | 24 | 113 | 134 | 145 | 64 | 33 | 25 |
| 16 | 36 | 32 | 30 | 28 | b23 | 25 | 111 | 139 | 136 | 58 | 29 | 25 |
| 17 | 34 | 34 | 28 | 28 | b23 | 24 | 103 | 129 | 129 | 61 | 32 | 22 |
| 18 | 34 | b33 | 28 | 27 | b24 | 24 | 88 | 143 | 125 | 52 | 30 | 23 |
| 19 | 33 | b32 | 28 | 27 | b24 | 24 | 84 | 178 | 113 | 48 | 34 | 24 |
| 20 | 33 | b30 | 28 | 26 | b24 | 24 | 93 | 246 | 111 | 47 | 33 | 24 |
| 21 | 35 | b29 | 27 | 25 | 25 | 24 | 109 | 365 | 103 | 45 | 33 | 24 |
| 22 | 31 | b29 | b27 | 27 | 22 | 25 | 146 | 429 | 96 | 45 | 31 | 24 |
| 23 | 38 | b30 | b26 | 28 | 27 | 27 | 143 | 452 | 90 | 42 | 35 | 24 |
| 24 | 38 | b31 | b26 | 27 | 28 | 27 | 115 | 475 | 84 | 42 | 38 | 24 |
| 25 | 38 | b31 | b25 | 27 | 24 | 26 | 102 | 525 | 82 | 41 | 37 | 25 |
| 26 | 36 | 31 | b26 | 28 | 25 | 24 | 93 | 540 | 76 | 41 | 39 | 24 |
| 27 | 33 | 31 | b27 | 27 | 23 | 24 | 84 | 530 | 85 | 49 | 34 | 24 |
| 28 | 36 | 31 | b27 | 28 | 24 | 24 | 79 | 456 | 91 | 48 | 34 | 24 |
| 29 | 34 | 30 | 27 | 29 | - | 25 | 76 | 434 | 90 | 49 | 33 | 24 |
| 30 | 34 | 30 | 26 | 24 | - | 28 | 69 | 373 | 86 | 40 | 31 | 22 |
| 31 | 32 | - | 27 | 26 | - | 34 | - | 328 | - | 40 | 30 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,062 | 51 | 29 | 34.2 | 2,110 |
| November..... | 967 | 35 | 29 | 32.2 | 1,920 |
| December..... | 860 | 30 | 25 | 27.7 | 1,710 |
| Calendar year 1941..... | 32,249 | 580 | 17 | 88.4 | 64,010 |
| January..... | 838 | 29 | 24 | 27.0 | 1,660 |
| February..... | 695 | 28 | 22 | 24.8 | 1,380 |
| March..... | 798 | 34 | 24 | 25.7 | 1,580 |
| April..... | 2,419 | 146 | 37 | 80.6 | 4,800 |
| May..... | 7,578 | 840 | 63 | 244 | 15,030 |
| June..... | 4,951 | 340 | 76 | 165 | 9,220 |
| July..... | 1,798 | 82 | 40 | 58.0 | 3,570 |
| August..... | 1,102 | 58 | 29 | 35.5 | 2,190 |
| September..... | 764 | 29 | 22 | 25.5 | 1,520 |
| Water year 1941-42..... | 23,832 | 540 | 22 | 65.3 | 47,290 |

b Stage-discharge relation affected by ice.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter.
To convert war time to standard time, subtract 1 hour.

BEAVER RIVER BASIN

Beaver River at Adamsville, Utah

Location.- Water-stage recorder, lat. 38°16', long. 112°48', in S½ sec. 30, T. 20 S., R. 8 W., 600 feet downstream from bridge on State Highway 21, a quarter of a mile upstream from Indian Creek, and three-quarters of a mile south of Adamsville.

Drainage area.- 272 square miles.

Records available.- December 1913 to September 1936, October 1937 to September 1942.

Average discharge.- 26 years (1914-36, 1938-42), 38.2 second-feet.

Extremes.- Maximum discharge during year, 454 second-feet May 27 (gage height, 2.91 feet); minimum, 4 second-feet June 29 (gage height 1.05 feet).

1913-36, 1937-42: Maximum discharge, 1,090 second-feet July 23, 1941 (gage height, 4.68 feet), from rating curve extended above 500 second-feet; no flow during periods in 1924, 1931, 1934, 1935, 1939.

Remarks.- Records good except those for Jan. 1 to May 24, which are fair. No diversions between station and Rockyford Reservoir. Several ditches above station divert practically entire flow during irrigation season to supply Adamsville and Beaver districts.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 34 | 63 | 57 | 57 | 51 | 44 | 44 | 67 | 151 | 15 | 24 | 6 |
| 2 | 37 | 63 | 57 | b55 | 49 | 41 | 41 | 74 | 154 | 18 | 23 | 5 |
| 3 | 38 | 61 | 59 | b53 | 49 | 42 | 41 | 65 | 112 | 21 | 15 | 7 |
| 4 | 37 | 61 | 60 | b53 | 49 | 41 | 49 | 60 | 92 | 16 | 14 | 6 |
| 5 | 38 | 61 | 61 | b53 | 51 | 41 | 60 | 56 | 73 | 14 | 15 | 15 |
| 6 | 41 | 61 | 65 | b54 | 51 | 42 | 71 | 45 | 75 | 12 | 17 | 13 |
| 7 | 37 | 59 | 63 | b54 | 49 | 51 | 56 | 47 | 61 | 14 | 14 | 15 |
| 8 | 37 | 59 | 61 | b55 | 47 | 52 | 49 | 49 | 56 | 17 | 10 | 12 |
| 9 | 35 | 61 | 59 | 58 | 47 | 47 | 54 | 58 | 47 | 12 | 10 | 12 |
| 10 | 32 | 61 | 61 | 60 | 47 | 47 | 58 | 63 | 44 | 9 | 14 | 9 |
| 11 | 31 | 59 | 61 | 56 | 45 | 47 | 54 | 58 | 42 | 10 | 16 | 13 |
| 12 | 34 | 63 | 59 | 56 | 45 | 54 | 69 | 58 | 37 | 9 | 31 | 13 |
| 13 | 115 | 66 | 61 | 58 | b44 | 56 | 78 | 54 | 28 | 9 | 17 | 12 |
| 14 | 55 | 61 | 61 | 56 | b43 | 49 | 103 | 39 | 24 | 9 | 17 | 15 |
| 15 | 47 | 59 | 59 | 58 | b42 | 47 | 109 | 34 | 25 | 15 | 16 | 13 |
| 16 | 45 | 59 | 57 | 58 | b41 | 47 | 99 | 33 | 26 | 23 | 15 | 12 |
| 17 | 47 | 71 | 57 | 54 | b41 | 47 | 74 | 33 | 24 | 42 | 14 | 10 |
| 18 | 44 | 65 | 57 | 56 | b42 | 45 | 65 | 33 | 21 | 36 | 14 | 7 |
| 19 | 44 | 59 | 55 | 51 | b43 | 47 | 60 | 31 | 21 | 24 | 20 | 13 |
| 20 | 45 | 55 | 57 | b50 | b44 | 54 | 81 | 49 | 23 | 20 | 21 | 16 |
| 21 | 51 | 55 | 55 | 56 | b46 | 45 | 51 | 137 | 21 | 18 | 14 | 17 |
| 22 | 51 | 59 | b54 | 54 | b43 | 45 | 58 | 216 | 14 | 18 | 10 | 16 |
| 23 | 74 | 61 | b53 | 58 | 49 | 44 | 97 | 289 | 10 | 18 | 10 | 16 |
| 24 | 80 | 65 | b53 | 58 | 49 | 44 | 88 | 314 | 7 | 18 | 9 | 16 |
| 25 | 65 | 61 | b53 | 58 | 42 | 44 | 69 | 314 | 6 | 20 | 13 | 14 |
| 26 | 59 | 63 | b53 | 56 | 51 | 42 | 92 | 389 | 5 | 12 | 12 | 12 |
| 27 | 59 | 57 | 53 | 52 | 42 | 41 | 114 | 367 | 4 | 15 | 8 | 12 |
| 28 | 172 | 59 | 61 | 54 | 41 | 42 | 88 | 277 | 4 | 17 | 9 | 10 |
| 29 | 107 | 59 | 57 | 52 | - | 41 | 74 | 239 | 4 | 27 | 6 | 10 |
| 30 | 80 | 59 | 59 | 49 | - | 44 | 67 | 199 | 6 | 23 | 6 | 10 |
| 31 | 65 | - | 57 | 51 | - | 44 | - | 171 | - | 20 | 5 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,736 | 172 | 31 | 56.0 | 3,440 |
| November..... | 1,824 | 71 | 55 | 60.8 | 3,620 |
| December..... | 1,815 | 80 | 53 | 58.5 | 3,600 |
| Calendar year 1941..... | 30,431 | 592 | 18 | 83.4 | 60,360 |
| January..... | 1,704 | 60 | 49 | 55.0 | 3,380 |
| February..... | 1,288 | 51 | 41 | 46.0 | 2,550 |
| March..... | 1,417 | 56 | 41 | 45.7 | 2,810 |
| April..... | 2,083 | 114 | 41 | 69.4 | 4,130 |
| May..... | 3,918 | 389 | 31 | 126 | 7,770 |
| June..... | 1,217 | 154 | 4 | 40.6 | 2,410 |
| July..... | 550 | 42 | 9 | 17.7 | 1,090 |
| August..... | 439 | 31 | 5 | 14.2 | 671 |
| September..... | 352 | 17 | 5 | 11.7 | 696 |
| Water year 1941-42..... | 18,343 | 389 | 4 | 50.3 | 36,370 |

b Stage-discharge relation affected by ice.

Time basis Mountain standard time prior to 2 a. m., Feb. 9, 1942; mountain war time thereafter.

To convert war time to standard time, subtract 1 hour.

Rockyford Reservoir near Minersville, Utah.

Location.- Staff gage, lat. 38°14', long. 112°50', in NE¼ sec. 11, T. 30 S., R. 9 W., at Rockyford Dam on Beaver River, 5 miles east of Minersville.

Drainage area.- 510 square miles.

Records available.- October 1937 to September 1942.

Extremes.- Maximum contents observed during year, 23,260 acre-feet May 26-28 (gage height, 51.0 feet); minimum observed, 11,150 acre-feet Sept. 18-30 (gage height, 37.3 feet).
1937-42: Maximum contents observed, 23,590 acre-feet June 18, 1941 (gage height, 51.3 feet); no storage Oct. 16 and 31, 1939.

Remarks.- Reservoir is formed by earth-fill dam completed in 1914. Capacity, 23,260 acre-feet between gage heights 0 foot (bottom of outlet tunnel) and 51.0 feet (spillway crest). Prior to the fall of 1937 the spillway crest was at elevation 52.5 feet. Dead storage negligible. Water is used for irrigation on the lands of Delta Land & Water Co.

Contents in acre-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|---------|--------|--------|--------|---------|--------|--------|--------|---------|---------|--------|--------|
| 1 | - | - | - | - | - | - | 21,940 | 22,930 | 22,710 | - | - | - |
| 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| 3 | 17,190 | 20,400 | - | - | - | - | - | 22,930 | 22,710 | - | - | - |
| 4 | - | - | 20,970 | - | - | 20,310 | - | - | - | - | - | - |
| 5 | - | 20,590 | - | 19,180 | - | - | - | 22,820 | - | - | 15,370 | - |
| 6 | 17,380 | - | - | - | - | - | 22,270 | - | - | - | - | - |
| 7 | - | - | - | - | 19,360 | - | - | 22,710 | - | - | - | - |
| 8 | 17,470 | - | - | - | - | 20,500 | 22,350 | - | 22,160 | - | - | - |
| 9 | 17,470 | 20,780 | - | - | - | - | - | - | - | 15,140 | - | - |
| 10 | - | - | 20,780 | 19,180 | - | 20,690 | 22,600 | - | - | - | 14,480 | - |
| 11 | 17,660 | - | - | - | - | - | - | 22,380 | - | - | - | - |
| 12 | - | - | - | - | - | - | 22,710 | - | - | - | - | 11,280 |
| 13 | - | 21,060 | - | - | - | - | - | 22,270 | 21,500 | - | - | - |
| 14 | 18,140 | - | 20,500 | - | - | - | 23,040 | - | - | - | - | - |
| 15 | - | 21,180 | - | 19,180 | 19,180 | - | - | - | - | - | - | - |
| 16 | 18,230 | - | 20,310 | - | - | - | - | 22,050 | - | - | - | - |
| 17 | - | - | - | - | - | - | - | - | - | - | - | - |
| 18 | - | - | - | - | - | - | - | - | - | - | - | 11,150 |
| 19 | - | 21,500 | - | - | - | - | 23,150 | - | - | - | - | - |
| 20 | - | 21,850 | - | 19,180 | - | - | - | - | 20,310 | - | - | - |
| 21 | 18,700 | - | - | - | - | - | 22,950 | 21,610 | - | - | - | - |
| 22 | - | - | 19,550 | - | - | 21,500 | - | 21,940 | - | - | 13,450 | - |
| 23 | - | 21,500 | - | - | 19,650 | - | 22,600 | 22,380 | - | 16,100 | - | - |
| 24 | - | - | - | 19,180 | - | - | - | - | - | - | - | - |
| 25 | 19,270 | 21,390 | - | - | - | - | 22,600 | 22,820 | - | - | - | - |
| 26 | - | - | - | - | - | - | 22,710 | 23,260 | - | - | - | - |
| 27 | - | - | - | 19,360 | 20,030 | - | - | 23,260 | - | - | - | - |
| 28 | 19,740 | - | - | - | a20,090 | - | - | 23,260 | - | - | - | - |
| 29 | - | 21,180 | - | - | - | - | - | 23,150 | 19,560 | 15,610 | - | - |
| 30 | 20,120 | 21,060 | - | - | - | - | 22,710 | 22,710 | a19,410 | - | - | 11,150 |
| 31 | a20,190 | - | 19,180 | 19,360 | - | 21,940 | - | 22,710 | - | a15,540 | 12,300 | - |

Monthly gage height and contents, water year October 1941 to September 1942

| Date | Gage height (feet) | Contents (acre-feet) | Change in contents during month (acre-feet) |
|-------------------------|--------------------|----------------------|---|
| Sept. 30..... | 44.7 | 17,000 | - |
| Oct. 31..... | - | a20,190 | +3,190 |
| Nov. 30..... | 49.0 | 21,060 | +870 |
| Dec. 31..... | 47.0 | 19,180 | -1,880 |
| Calendar year 1941..... | - | - | +11,910 |
| Jan. 31..... | 47.2 | 19,360 | +180 |
| Feb. 28..... | - | a20,090 | +730 |
| Mar. 31..... | 49.8 | 21,940 | +1,850 |
| Apr. 30..... | 50.5 | 22,710 | +770 |
| May 31..... | 50.5 | 22,710 | 0 |
| June 30..... | - | a19,410 | -3,300 |
| July 31..... | - | a15,540 | -3,870 |
| Aug. 31..... | 39.0 | 12,300 | -3,240 |
| Sept. 30..... | 37.3 | 11,150 | -1,150 |
| Water year 1941-42..... | - | - | -5,850 |

a No gage-height record; contents interpolated.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

BEAVER RIVER BASIN

Beaver River at Rockyford Dam, near Minersville, Utah

Location.- Water-stage recorder and concrete control, lat. 39°14', long. 112°50', in NW¼ sec. 11, T. 30 S., R. 9 W., half a mile downstream from Rockyford Dam and ¼ miles east of Minersville.

Drainage area.- 512 square miles.

Records available.- December 1913 to September 1942.

Average discharge.- 27 years (1914-36, 1937-42) 39.8 second-feet.

Extremes (regulated).- Maximum discharge during year, 309 second-feet May 28-30 (gage height, 2.43 feet); minimum, 9 second-feet Oct. 1.

1913-42: Maximum discharge, 727 second-feet June 10, 1921 (gage height, 3.53 feet); minimum, 0.3 second-foot Mar. 19, 20, 1914.

Remarks.- Records good. One small diversion between dam and station. Flow regulated by operation of gates at Rockyford Dam and affected also by several diversions above reservoir for irrigation and municipal supply.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 9 | 28 | 94 | 67 | 56 | a13 | a13 | 88 | 109 | 76 | 79 | 78 |
| 2 | 10 | 27 | 94 | 64 | 56 | a13 | a13 | 88 | 109 | 81 | 79 | 79 |
| 3 | 10 | 27 | 94 | 64 | 56 | a13 | a13 | 86 | 110 | 96 | 79 | 79 |
| 4 | 9 | 29 | 94 | 64 | 57 | a13 | a13 | 88 | 122 | 96 | 78 | 78 |
| 5 | 10 | 27 | 94 | 66 | 57 | a13 | a13 | 88 | 118 | 96 | 76 | 79 |
| 6 | 10 | 27 | 93 | 66 | 57 | a13 | a13 | 86 | 118 | 96 | 78 | 79 |
| 7 | 10 | 27 | 93 | 66 | 57 | a13 | a13 | 98 | 118 | 98 | 78 | 79 |
| 8 | 10 | 27 | 93 | 61 | 57 | a13 | a13 | 96 | 118 | 101 | 78 | 79 |
| 9 | 10 | 27 | 94 | 57 | 57 | a13 | a13 | 96 | 107 | 101 | 79 | 61 |
| 10 | 10 | 27 | 98 | 57 | 57 | a13 | 13 | 96 | 100 | 101 | 79 | 48 |
| 11 | 10 | 28 | 105 | 58 | 57 | a13 | 14 | 96 | 98 | 101 | 81 | 49 |
| 12 | 10 | 28 | 112 | 58 | 57 | a13 | 14 | 96 | 96 | 114 | 81 | 49 |
| 13 | 11 | 28 | 110 | 58 | 57 | a13 | 14 | 94 | 93 | 114 | 81 | 49 |
| 14 | 11 | 28 | 112 | 58 | 58 | a13 | 40 | 84 | 81 | 112 | 81 | 50 |
| 15 | 11 | 28 | 110 | 58 | 37 | a13 | 56 | 86 | 79 | 91 | 76 | 51 |
| 16 | 12 | 35 | 109 | 58 | 16 | a13 | 61 | 84 | 78 | 93 | 72 | 48 |
| 17 | 11 | 42 | 101 | 58 | a13 | a13 | 94 | 82 | 79 | 103 | 75 | 45 |
| 18 | 11 | 40 | 101 | 58 | a13 | a13 | 109 | 88 | 79 | 98 | 74 | 32 |
| 19 | 11 | 40 | 101 | 58 | a13 | a13 | 105 | 89 | 79 | 98 | 57 | a26 |
| 20 | 12 | 39 | 100 | 58 | a13 | a13 | 105 | 89 | 79 | 98 | 56 | a26 |
| 21 | 13 | 39 | 100 | 58 | a13 | a13 | 105 | 89 | 79 | 98 | 66 | 26 |
| 22 | 13 | 54 | 101 | 57 | a13 | a13 | 103 | 89 | 81 | 98 | 63 | 26 |
| 23 | a13 | 84 | 100 | 57 | a13 | a13 | 105 | 89 | 81 | 60 | 63 | 26 |
| 24 | a13 | 64 | 100 | 57 | a13 | a13 | 91 | 93 | 88 | 42 | 63 | 26 |
| 25 | a13 | 98 | 101 | 58 | a13 | a13 | 88 | 217 | 88 | 42 | 63 | 24 |
| 26 | a13 | 94 | 101 | 57 | a13 | a13 | 82 | 306 | 86 | 40 | 64 | 22 |
| 27 | a13 | 94 | 101 | 57 | a13 | a13 | 73 | 306 | 88 | 42 | 67 | 22 |
| 28 | 20 | 94 | 100 | 57 | a13 | a13 | 73 | 309 | 88 | 43 | 67 | 21 |
| 29 | 28 | 94 | 82 | 57 | - | a13 | 76 | 309 | 86 | 42 | 78 | 20 |
| 30 | 28 | 94 | 72 | 57 | - | a13 | 78 | 290 | 86 | 47 | 78 | 19 |
| 31 | 28 | - | 72 | 57 | - | a13 | - | 183 | - | 72 | 78 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 403 | 28 | 9 | 13.0 | 799 |
| November..... | 1,428 | 94 | 27 | 47.6 | 2,830 |
| December..... | 3,032 | 112 | 72 | 97.8 | 5,010 |
| Calendar year 1941..... | 25,617 | 507 | 5 | 64.7 | 45,830 |
| January..... | 1,841 | 67 | 57 | 59.4 | 3,650 |
| February..... | 1,005 | 58 | 13 | 35.9 | 1,990 |
| March..... | 403 | 15 | 13 | 13.0 | 799 |
| April..... | 1,616 | 109 | 13 | 53.9 | 3,210 |
| May..... | 4,078 | 309 | 82 | 132 | 8,090 |
| June..... | 2,821 | 122 | 78 | 94.0 | 5,600 |
| July..... | 2,590 | 114 | 40 | 85.5 | 5,140 |
| August..... | 2,265 | 81 | 56 | 73.1 | 4,490 |
| September..... | 1,394 | 79 | 19 | 48.5 | 2,760 |
| Water year 1941-42..... | 22,876 | 309 | .9 | 62.7 | 45,370 |

a No gage-height record; discharge computed on basis of gate changes at dam and discharge measurement on Mar. 10.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Coal Creek near Cedar City, Utah

Location.- Water-stage recorder, lat. 37°40'25", long. 113°02'10", in NE¼ sec. 13, T. 36 S., R. 11 W., at flood control dam, 1½ miles southeast of Cedar City and 3¼ miles downstream from South Creek.

Drainage area.- 92 square miles.

Records available.- May 1935 to September 1942. May 1915 to November 1919 at approximately same site, but records do not include flow of power canal operated during this period (abandoned since 1919). Records equivalent if flow of power canal is added to those obtained at former site.

Extremes.- Maximum discharge during year, 533 second-feet May 20 (gage height, 2.60 feet), from rating curve extended by broad-crested weir formula; minimum not determined, (occurred during period of ice effect).
1935-42: Maximum discharge observed, 2,910 second-feet July 9, 1936 (gage height, 6.4 feet), from rating curve extended by broad-crested weir formula; minimum observed, 4 second-feet Dec. 15, 1935 (may have been less during periods of ice effect).

Remarks.- Records fair except those for periods of ice effect, no gage-height record, and daily gage readings, which are poor. No diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1 | 14 | 23 | 17 | | h12 | b14 | a28 | a60 | a190 | a60 | a16 | 12 |
| 2 | 14 | 24 | 16 | | a12 | a14 | a31 | a70 | a170 | a45 | a14 | 12 |
| 3 | 15 | 27 | 17 | | a12 | a14 | a35 | 59 | a150 | a40 | a14 | 12 |
| 4 | 15 | 27 | 16 | | a13 | a14 | a40 | 47 | a140 | a35 | a14 | 12 |
| 5 | 14 | 27 | 22 | | a13 | a14 | h45 | 134 | 145 | a37 | a14 | 12 |
| 6 | 14 | 25 | 15 | b8 | a15 | a15 | a50 | 204 | 132 | a35 | a14 | 12 |
| 7 | 14 | 22 | b14 | | a15 | a16 | a50 | 180 | 127 | a32 | a14 | 12 |
| 8 | 14 | 21 | b15 | | h15 | h25 | a50 | 255 | 111 | a30 | 14 | 12 |
| 9 | 14 | 21 | b15 | | a12 | a21 | a60 | 254 | 111 | a28 | 28 | 12 |
| 10 | 14 | 21 | b15 | | a12 | 21 | a70 | 236 | 106 | a26 | 35 | 12 |
| 11 | 14 | 21 | a13 | | a12 | 19 | a65 | a200 | 101 | a25 | 19 | 14 |
| 12 | 16 | 21 | a13 | | a11 | 16 | h106 | a190 | 97 | a24 | 16 | 14 |
| 13 | 50 | 21 | a13 | | a11 | 17 | a120 | a180 | 92 | h23 | 17 | 12 |
| 14 | 34 | 20 | b14 | | a10 | 17 | a130 | a170 | 85 | 24 | 16 | 12 |
| 15 | 30 | 21 | b14 | | | 17 | a140 | a160 | 85 | 24 | 15 | 12 |
| 16 | 24 | 20 | 14 | b10 | | 17 | a140 | a170 | 81 | 54 | 14 | 12 |
| 17 | 21 | 21 | 14 | | b8 | 17 | a130 | 174 | 74 | 65 | 14 | 12 |
| 18 | 19 | 20 | 13 | | | 19 | a110 | 157 | 70 | a25 | 14 | 12 |
| 19 | 17 | 16 | 12 | | | 17 | 94 | 121 | 66 | h19 | 14 | a12 |
| 20 | 25 | 15 | a12 | | | b15 | 111 | 201 | 66 | a17 | 14 | 12 |
| 21 | 25 | 14 | b11 | a10 | | a16 | 127 | 315 | 66 | a15 | 14 | 12 |
| 22 | 21 | a13 | a11 | a11 | | h22 | 204 | a275 | 59 | a14 | 14 | 12 |
| 23 | 27 | b15 | a11 | a12 | b10 | a22 | 245 | a250 | 59 | a14 | 17 | 12 |
| 24 | 30 | a15 | a11 | a13 | | a22 | 201 | a300 | a58 | a14 | 16 | 12 |
| 25 | 28 | b15 | a11 | h14 | | a21 | 195 | 367 | a55 | a14 | 14 | 12 |
| 26 | 26 | 17 | a11 | a14 | | a20 | 174 | 250 | a52 | a16 | 14 | 12 |
| 27 | 21 | 18 | a11 | a14 | b12 | a20 | 157 | a200 | a50 | a20 | 14 | 12 |
| 28 | 22 | 16 | b12 | a14 | | a20 | 121 | a175 | a52 | a16 | 14 | 12 |
| 29 | 25 | 17 | a12 | a14 | - | h21 | a100 | a200 | a54 | a15 | 14 | 12 |
| 30 | 25 | 17 | a12 | a12 | - | a22 | a90 | h189 | a54 | a22 | 14 | 12 |
| 31 | 25 | - | a10 | a12 | - | a24 | - | a190 | - | a18 | 13 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 665 | 50 | 14 | 21.4 | 1,320 |
| November..... | 590 | 27 | 13 | 19.7 | 1,170 |
| December..... | 410 | 22 | 10 | 13.2 | 813 |
| Calendar year 1941..... | 21,339 | 610 | 6 | 58.5 | 42,520 |
| January..... | 320 | - | - | 10.3 | 656 |
| February..... | 303 | - | - | 10.8 | 601 |
| March..... | 572 | 24 | 14 | 18.5 | 1,130 |
| April..... | 3,249 | 245 | 28 | 108 | 6,440 |
| May..... | 5,363 | 367 | 47 | 195 | 11,670 |
| June..... | 2,772 | 190 | 50 | 92.4 | 5,500 |
| July..... | 821 | 65 | 14 | 28.5 | 1,630 |
| August..... | 483 | 33 | 13 | 15.7 | 968 |
| September..... | 364 | 14 | 12 | 12.1 | 722 |
| Water year 1941-42..... | 16,536 | 367 | - | 45.3 | 32,800 |

a No gage-height record; discharge computed on basis of records for stations on Beaver River near Beaver, Virgin River at Virgin, and weather records, or interpolated.

b Stage-discharge relation affected by ice.
h Discharge computed from staff gage readings.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

SALTON SEA BASIN

Salton Sea, Calif.

Location.- Bench mark set by Imperial Irrigation District, lat. 33°26'55", long. 116°02'20", in N½ sec. 27, T. 8 S., R. 9 E., 1 mile northeast of Figtree John Spring and about 9 miles south of Mecca. Elevation is 242.44 feet below mean sea level.

Drainage area.- 8,360 square miles.

Records available.- November 1904 to September 1942. Records prior to September 1932 in Water-Supply Paper 735.

Extremes.- Maximum stage, 195.0 feet below mean sea level in February and March 1907; minimum, since 1906, 250.7 feet below mean sea level in November 1924; bottom of sea (from 1904-5 determinations) is 273.5 feet below mean sea level.

Remarks.- Area of water surface of sea at elevation 250 feet below mean sea level, 266 square miles; area at 240 feet below mean sea level, 328 square miles. See Water-Supply Paper 735 for condensed history of Salton Sea. Elevations in the following table, furnished by Imperial Irrigation District, were determined by leveling from above-mentioned bench mark.

Elevation, in feet, below mean sea level, water year
October 1941 to September 1942

| | | | | | |
|-------------|-------|-------------|-------|--------------|-------|
| Oct. 1..... | 241.7 | Feb. 2..... | 240.8 | July 1..... | 240.8 |
| Nov. 1..... | 241.7 | Mar. 2..... | 240.6 | Aug. 1..... | 241.0 |
| Dec. 1..... | 241.5 | Apr. 1..... | 240.4 | Sept. 1..... | 241.5 |
| 12..... | 241.3 | May 1..... | 240.6 | Oct. 1..... | 241.7 |
| Jan. 2..... | 241.0 | June 1..... | 240.6 | | |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Palm Canyon Creek near Palm Springs, Calif.

Location.- Water-stage recorder, lat. 33°44'55", long. 116°32'15", in 8½ sec. 11, T. 5 S., R. 4 E., three-quarters of a mile upstream from Murray Canyon Creek and 6 miles south of Palm Springs. Altitude of gage, about 700 feet.

Drainage area.- 94.0 square miles.

Records available.- January 1930 to January 1942 (discontinued).

Average discharge.- 11 years (1930-1941), 7.75 second-feet.

Extremes.- Maximum discharge during period, 137 second-foot Nov. 12 (gage height, 1.64 feet); minimum daily, 0.3 second-foot Oct. 2, 1930-42; Maximum discharge, 3,850 second-foot Feb. 6, 1937 (gage height, 5.60 feet), from rating curve extended above 120 second-feet on basis of velocity-area studies; no flow for several months during most years.

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

Discharge, in second-feet, Oct. 1, 1941, to Jan. 14, 1942

| Day | Oct. | Nov. | Dec. | Jan. | Day | Oct. | Nov. | Dec. | Jan. |
|-----|------|------|------|------|-----|------|------|------|------|
| 1 | 0.4 | 1.1 | 2.3 | 64 | 16 | 0.6 | a3.2 | 4.5 | - |
| 2 | .5 | 1.1 | 2.3 | 27 | 17 | .6 | a3.1 | 4.0 | - |
| 3 | .4 | 1.1 | 2.6 | 19 | 18 | .6 | a3.0 | 4.0 | - |
| 4 | .5 | 1.2 | 3.0 | 18 | 19 | .7 | a3.0 | 3.6 | - |
| 5 | .5 | 1.2 | 3.0 | 19 | 20 | 1.1 | 2.6 | 3.6 | - |
| 6 | .6 | 1.2 | 2.6 | 18 | 21 | .9 | 2.3 | 3.3 | - |
| 7 | .6 | 1.2 | 3.0 | 17 | 22 | 1.6 | 2.3 | 3.3 | - |
| 8 | .7 | 1.2 | 3.0 | 18 | 23 | 2.6 | 2.0 | 3.6 | - |
| 9 | .7 | 1.4 | 3.3 | 18 | 24 | 5.0 | 2.0 | 4.5 | - |
| 10 | .7 | 1.4 | 6.6 | 17 | 25 | 1.4 | 2.0 | 4.5 | - |
| 11 | .8 | 4.5 | 10. | 16 | 26 | 1.2 | 2.0 | 5.5 | - |
| 12 | .7 | 7.5 | 7.5 | 16 | 27 | 1.1 | 2.3 | 5.5 | - |
| 13 | .6 | a3.6 | 6 | 16 | 28 | .9 | 2.3 | 6 | - |
| 14 | .6 | a3.3 | 5.5 | 14 | 29 | 1.1 | 2.3 | 58 | - |
| 15 | .6 | a3.3 | 4.5 | - | 30 | 1.1 | 2.3 | 18 | - |
| | | | | | 31 | 1.1 | - | 18 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October..... | 28.4 | 3.0 | 0.3 | 0.92 | 56 |
| November..... | 109.6 | 45 | 1.1 | 3.65 | 217 |
| December..... | 214.0 | 58 | 2.3 | 6.90 | 424 |
| Calendar year 1941 | 6,863.6 | 323 | .2 | 18.8 | 13,610 |
| January 1-14 | 296 | 64 | 14 | 21.1 | 597 |
| The period | - | - | - | - | 1,280 |

Peak discharge - Nov. 12 (2 p.m.) 137 sec.-ft.; Dec. 29 (9 a.m.) 131 sec.-ft.; Jan. 1 (7 a.m.) 113 sec.-ft.

a No gage-height record; discharge computed on basis of normal recession curve.

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Deep Creek near Hesperia, Calif.

Location.- Water-stage recorder and broad-crested weir control, lat. 34°20'30", long. 117°13'40", in SE 1/4 sec. 18, T. 3 N., R. 3 W., half a mile upstream from confluence with West Fork of Mojave River and 8 miles southeast of Hesperia. Altitude of gage, about 3,050 feet.

Drainage area.- 137 square miles.

Records available.- December 1929 to September 1942.

Average discharge.- 12 years (1930-42), 68.2 second-feet.

Extremes.- Maximum discharge during year, 395 second-feet Apr. 4 (gage height, 2.74 feet); minimum, 0.6 second-feet Sept. 17 (gage height, 0.77 foot).
1929-42: Maximum discharge, 46,600 second-feet Mar. 2, 1936, by slope-area method; minimum, 0.1 second-foot at times during 1932-34, and 1936.

Remarks.- Records good. Storage in Lake Arrowhead above station. Hesperia Water Co.'s canal diverts about 2 miles above station.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 6.5 | 14 | 17 | 44 | 38 | 30 | 56 | 44 | 14 | 3.1 | 0.8 | 0.8 |
| 2 | 6.5 | 14 | 18 | 36 | 36 | 32 | 61 | 39 | 13 | 2.9 | .8 | .8 |
| 3 | 6 | 14 | 17 | 39 | 35 | 34 | 65 | 36 | 13 | 2.5 | .8 | .8 |
| 4 | 6 | 14 | 22 | 36 | 34 | 35 | 214 | 35 | 12 | 2.1 | .8 | .8 |
| 5 | 6.5 | 15 | 20 | 34 | 34 | 36 | 184 | 34 | 12 | 1.8 | .8 | .9 |
| 6 | 7 | 15 | 18 | 35 | 38 | 38 | 118 | 31 | 11 | 1.7 | .8 | .9 |
| 7 | 7 | 13 | 17 | 35 | 38 | 38 | 88 | 31 | 11 | 1.5 | .8 | .9 |
| 8 | 8 | 13 | 18 | 38 | 35 | 35 | 74 | 30 | 11 | 1.5 | .9 | .7 |
| 9 | 7.5 | 13 | 18 | 40 | 34 | 36 | 69 | 29 | 11 | 1.4 | 2.7 | .7 |
| 10 | 7.5 | 13 | 69 | 42 | 31 | 34 | 71 | 29 | 10 | 1.4 | f36 | .8 |
| 11 | 7.5 | 14 | 92 | 43 | 30 | 40 | 159 | 29 | 10 | 1.4 | a5 | .8 |
| 12 | 8 | 21 | 51 | 46 | 29 | 57 | 128 | 29 | 9 | 1.4 | al.5 | .8 |
| 13 | 9.5 | 19 | 40 | 57 | 29 | 46 | 96 | 27 | 9 | 1.4 | f2.0 | .8 |
| 14 | 9 | 17 | 32 | 57 | 25 | 47 | 88 | 26 | 8 | 1.4 | 1.1 | .8 |
| 15 | 8.5 | 16 | 31 | 54 | 20 | 46 | 83 | 25 | 7.5 | 2.5 | 1.0 | .8 |
| 16 | 8.5 | 16 | 30 | 54 | 25 | 57 | 74 | 25 | 6 | 1.4 | 1.0 | .8 |
| 17 | 8.5 | 18 | 30 | 49 | 22 | 57 | 69 | 23 | 6 | 1.4 | 1.0 | .8 |
| 18 | 8.5 | 18 | 29 | 46 | 22 | 65 | 86 | 22 | 5.5 | 1.3 | 1.1 | .7 |
| 19 | 8.5 | 17 | 25 | 42 | 21 | 69 | 57 | 21 | 4.9 | 1.3 | 1.1 | .7 |
| 20 | 24 | 16 | 22 | 38 | 21 | 59 | 54 | 20 | 4.3 | 1.3 | 1.2 | .8 |
| 21 | 19 | 15 | 26 | 38 | 24 | 52 | 57 | 18 | 3.8 | 1.3 | 1.1 | .8 |
| 22 | 24 | 15 | 25 | 39 | 74 | 51 | 76 | 18 | 3.3 | 1.2 | 1.1 | .9 |
| 23 | 29 | 14 | 25 | 46 | 47 | 49 | 61 | 18 | 2.9 | 1.2 | .9 | .9 |
| 24 | 24 | 14 | 23 | 42 | 38 | 52 | 51 | 17 | 2.7 | 1.1 | .9 | .9 |
| 25 | 21 | 14 | 18 | 42 | 32 | 51 | 46 | 17 | 2.7 | 1.1 | .8 | .9 |
| 26 | 17 | 16 | 24 | 47 | 32 | 47 | 42 | 16 | 3.1 | 1.1 | .8 | 1.0 |
| 27 | 16 | 16 | 20 | 54 | 31 | 43 | 40 | 16 | 3.8 | 1.1 | .7 | 1.0 |
| 28 | 16 | 16 | 22 | 56 | 31 | 43 | 44 | 15 | 4.0 | 1.0 | .8 | 1.1 |
| 29 | 16 | 16 | 86 | 47 | - | 45 | 57 | 15 | 4.0 | .9 | .9 | 1.1 |
| 30 | 15 | 16 | 81 | 42 | - | 46 | 52 | 15 | 3.3 | .9 | .9 | 1.1 |
| 31 | 14 | - | 54 | 39 | - | 51 | - | 14 | - | .9 | .9 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 380.0 | 29 | 6 | 12.3 | 754 |
| November..... | 458 | 21 | 13 | 15.3 | 908 |
| December..... | 1,020 | 92 | 17 | 32.9 | 2,080 |
| Calendar year 1941..... | 49,593.8 | 1,850 | 4.9 | 136 | 98,360 |
| January..... | 1,359 | 57 | 34 | 43.8 | 2,700 |
| February..... | 906 | 74 | 20 | 32.4 | 1,800 |
| March..... | 1,419 | 69 | 30 | 45.8 | 2,810 |
| April..... | 2,399 | 214 | 40 | 80.0 | 4,760 |
| May..... | 764 | 44 | 14 | 24.6 | 1,520 |
| June..... | 221.8 | 14 | 2.7 | 7.39 | 440 |
| July..... | 46.5 | 3.1 | .9 | 1.50 | 92 |
| August..... | 71.0 | 36 | .7 | 2.29 | 141 |
| September..... | 25.6 | 1.1 | .7 | .85 | 51 |
| Water year 1941-42..... | 9,069.9 | 214 | .7 | 24.8 | 18,000 |

Peak discharge.- Apr. 4 (2 p.m.) 395 sec.-ft.; Apr. 11 (4:30 a.m.) 185 sec.-ft.
 a No gage-height record; discharge computed on the basis of probable recession curve.
 f Computed on basis of partly estimated gage-height record.
 Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
 To convert war time to standard time, subtract 1 hour.

MOJAVE RIVER BASIN

Mojave River at lower narrows, near Victorville, Calif.

Location.- Water-stage recorder, lat. 34°34'25", long. 117°19'10", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 6 N., R. 4 W., 500 feet upstream from bridge, on U. S. Highway 66 and 3 miles northwest of Victorville.

Drainage area.- 530 square miles.

Records available.- October 1936 to September 1942. February 1899 to July 1906, November 1930 to September 1936 at site 3 miles upstream.

Extremes.- Maximum discharge during year, 71 second-feet Dec. 10; maximum gage height, 2.11 feet Sept. 26; minimum discharge, 9 second-feet July 28.

1930-42: Maximum discharge, 70,800 second-feet Mar. 2, 1938 (gage height, 16.70 feet), by slope-area method; minimum, that of July 28, 1942.

Remarks.- Records good. Storage at Lake Arrowhead and Lake Gregory. Diversions for irrigation from Deep Creek by Hesperia Water Co. and from Mojave River at Victorville.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 29 | 42 | 51 | 51 | 44 | 37 | 48 | 40 | 29 | 20 | 15 | 19 |
| 2 | 27 | 42 | 48 | 55 | 44 | 42 | 44 | 37 | 27 | 19 | 15 | 21 |
| 3 | 27 | 46 | 51 | 51 | 44 | 42 | 44 | 37 | 29 | 18 | 14 | 20 |
| 4 | 29 | 48 | 51 | 48 | 44 | 35 | 42 | 35 | 29 | 20 | 15 | 20 |
| 5 | 35 | 48 | 48 | 48 | 44 | 42 | 42 | 29 | 24 | 21 | 16 | 21 |
| 6 | 35 | 44 | 48 | 51 | 46 | 42 | 44 | 35 | 25 | 21 | 15 | 22 |
| 7 | 35 | 46 | 51 | 48 | 46 | 40 | 44 | 35 | 25 | 22 | 15 | 24 |
| 8 | 35 | 46 | 48 | 51 | 42 | 42 | 40 | 31 | 25 | 21 | 18 | 24 |
| 9 | 40 | 48 | 51 | 51 | 44 | 44 | 40 | 27 | 25 | 20 | 18 | 22 |
| 10 | 33 | 51 | 58 | 51 | 44 | 44 | 53 | 31 | 24 | 20 | 22 | 22 |
| 11 | 35 | 48 | 58 | 48 | 46 | 40 | 56 | 29 | 24 | 20 | 24 | 24 |
| 12 | 42 | 56 | 53 | 48 | 42 | 44 | 48 | 31 | 25 | 19 | 24 | 22 |
| 13 | 42 | 49 | 53 | 48 | 44 | 44 | 46 | 31 | 24 | 18 | 24 | 22 |
| 14 | 40 | 46 | 51 | 46 | 44 | 48 | 44 | 31 | 24 | 18 | 24 | 24 |
| 15 | 40 | 51 | 48 | 56 | 42 | 48 | 44 | 31 | 25 | 15 | 22 | 21 |
| 16 | 31 | 51 | 51 | 46 | 46 | 46 | 44 | 29 | 27 | 14 | 20 | 22 |
| 17 | 33 | 46 | 55 | 48 | 46 | 46 | 42 | 29 | 27 | 15 | 18 | 22 |
| 18 | 35 | 46 | 51 | 48 | 46 | 46 | 44 | 29 | 25 | 15 | 18 | 22 |
| 19 | 35 | 46 | 51 | 46 | 46 | 44 | 42 | 31 | 20 | 16 | 17 | 24 |
| 20 | 37 | 46 | 51 | 48 | 40 | 40 | 44 | 29 | 24 | 15 | 16 | 21 |
| 21 | 40 | 44 | 48 | 48 | 42 | 42 | 48 | 27 | 24 | 16 | 18 | 21 |
| 22 | 46 | 46 | 51 | 45 | 48 | 42 | 48 | 24 | 22 | 14 | 17 | 21 |
| 23 | 46 | 48 | 51 | 55 | 46 | 40 | 44 | 29 | 22 | 15 | 17 | 22 |
| 24 | 46 | 44 | 46 | 56 | 49 | 35 | 42 | 29 | 18 | 15 | 15 | 21 |
| 25 | 44 | 49 | 51 | 51 | 46 | 40 | 40 | 29 | 20 | 14 | 14 | 21 |
| 26 | 44 | 48 | 51 | 55 | 46 | 44 | 40 | 29 | 22 | 15 | 16 | 21 |
| 27 | 46 | 53 | 46 | 55 | 44 | 44 | 46 | 29 | 22 | 15 | 17 | 21 |
| 28 | 46 | 48 | 51 | 48 | 44 | 46 | 44 | 25 | 24 | 12 | 13 | 21 |
| 29 | 42 | 46 | 56 | 46 | - | 44 | 44 | 27 | 20 | 13 | 17 | 21 |
| 30 | 42 | 48 | 55 | 46 | - | 46 | 44 | 29 | 22 | 16 | 19 | 21 |
| 31 | 42 | - | 55 | 48 | - | 46 | - | 29 | - | 15 | 22 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,175 | 46 | 27 | 37.9 | 2,330 |
| November..... | 1,416 | 56 | 42 | 47.2 | 2,610 |
| December..... | 1,584 | 58 | 46 | 51.1 | 3,140 |
| Calendar year 1941..... | 72,099 | 3,060 | 15 | 196 | 143,000 |
| January..... | 1,525 | 56 | 46 | 49.2 | 3,020 |
| February..... | 1,260 | 48 | 40 | 44.6 | 2,480 |
| March..... | 1,325 | 48 | 35 | 42.7 | 2,530 |
| April..... | 1,335 | 56 | 40 | 44.5 | 2,650 |
| May..... | 937 | 40 | 24 | 30.2 | 1,560 |
| June..... | 723 | 29 | 18 | 24.1 | 1,430 |
| July..... | 527 | 22 | 12 | 17.0 | 1,050 |
| August..... | 555 | 24 | 13 | 17.9 | 1,100 |
| September..... | 650 | 24 | 19 | 21.7 | 1,290 |
| Water year 1941-42..... | 13,002 | 58 | 12 | 35.6 | 26,790 |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Mojave River at Barstow, Calif.

Location.- Water-stage recorder, lat. 34°54'25", long. 117°01'20", in SW¼ sec. 31, T. 10 N., R. 1 W., on U. S. Highway 91 at Barstow. Altitude of gage, about 2,090 feet.

Records available.- October 1930 to September 1942.

Average discharge.- 12 years, 43.8 second-feet.

Extremes.- Maximum discharge during year not determined, but was very small; maximum gage height recorded, 2.81 feet Mar. 14; no flow for several months.

1930-42: Maximum discharge, 64,300 second-feet Mar. 3, 1938 (gage height, 8.60 feet), by slope-area method; no flow for several months each year.

Remarks.- Records poor. Storage and many diversions above station.

Monthly discharge, in second-feet, water year October 1941 to September 1942

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 0 | 0 | 0 | 0 | 0 |
| November..... | 0 | 0 | 0 | 0 | 0 |
| December..... | 0 | 0 | 0 | 0 | 0 |
| Calendar year 1941..... | 48,401.6 | 2,460 | 0 | 153 | 96,000 |
| January..... | 0 | 0 | 0 | 0 | 0 |
| February..... | 14 | - | - | .5 | 28 |
| March..... | 31 | - | - | 1.0 | 61 |
| April..... | 6 | - | - | .2 | 12 |
| May..... | 0 | 0 | 0 | 0 | 0 |
| June..... | 0 | 0 | 0 | 0 | 0 |
| July..... | 0 | 0 | 0 | 0 | 0 |
| August..... | 0 | 0 | 0 | 0 | 0 |
| September..... | 0 | 0 | 0 | 0 | 0 |
| Water year 1941-42..... | 51 | - | 0 | .14 | 101 |

Note.- Daily discharge not determined. Monthly mean discharge February to April computed on basis of one discharge measurement, 3 field estimates of discharge and records for station near Victorville.

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

West Fork of Mojave River near Hesperia, Calif.

Location.- Water-stage recorder, lat. 34°20'20", long. 117°14'35", in SE½ sec. 13, T. 3 N., R. 4 W., at highway bridge, half a mile upstream from confluence with Deep Creek, and 7 miles southeast of Hesperia. Altitude of gage, about 3,050 feet.

Drainage area.- 74.8 square miles.

Records available.- January 1930 to September 1942.

Average discharge.- 12 years, 33.1 second-feet.

Extremes.- Maximum discharge during year, 450 second-feet Dec. 10 (gage height, 2.90 feet); no flow for many days.

1930-42: Maximum discharge, 26,100 second-feet Mar. 2, 1938, by slope-area method; no flow during several months of each year.

Remarks.- Records good, except those below 10 second-feet, which are fair. Storage at Lake Gregory above station. Water diverted from Lake Gregory by Crest Forest County Water District for domestic use and fire protection.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|-------|-------|------|------|------|------|------|-----|------|-------|------|-------|
| 1 | | | 1.6 | 92 | 13 | 12 | a8 | 18 | 0.1 | | 0 | |
| 2 | | | 1.6 | 62 | 12 | 16 | a9 | 16 | .1 | | 0 | |
| 3 | | | 3.3 | 48 | 12 | 16 | a10 | 13 | .1 | | 0 | |
| 4 | | | 4.5 | 45 | 12 | 16 | 750 | 12 | .1 | | 0 | |
| 5 | | | 3.8 | 56 | 12 | 15 | | 11 | .1 | | 0 | |
| 6 | | | 5.3 | 33 | 11 | 9 | 21 | 10 | .1 | | 0 | |
| 7 | | | 2.3 | 39 | 11 | 6.5 | 16 | 6 | .1 | | 0 | |
| 8 | | | 1.6 | 39 | 11 | 6 | 13 | 5.8 | .1 | | 0 | |
| 9 | | | 1.6 | 40 | 8 | 7.5 | 15 | 2.3 | .1 | | .01 | |
| 10 | | | 112 | 40 | 7.5 | 3.3 | 30 | 2.8 | .1 | | .2 | |
| 11 | | e0.02 | 126 | 39 | 3.8 | 12 | 60 | 4.5 | | e0.01 | | |
| 12 | | | 52 | 37 | 3.0 | 25 | 45 | 5 | | | | |
| 13 | | | 35 | 37 | 5 | 29 | 36 | 4.5 | | | e.05 | |
| 14 | | | 30 | 36 | 5 | 42 | 33 | 3.3 | | | | |
| 15 | | | 27 | 34 | 5 | 56 | 35 | 2.0 | | | | |
| 16 | e0.01 | | 22 | 33 | 2.3 | 48 | 20 | 2.8 | e.05 | | 0 | |
| 17 | | | 21 | 35 | 2.8 | 42 | 21 | 2.5 | | | 0 | |
| 18 | | | 21 | 32 | 1.6 | 43 | 19 | 1.0 | | | 0 | |
| 19 | | | 21 | 30 | 1.0 | 42 | 17 | .5 | | | 0 | |
| 20 | | .5 | 20 | 29 | 1.9 | 55 | 16 | 3.8 | | | 0 | |
| 21 | | 1.3 | 20 | 29 | 6.5 | 31 | 16 | 2.7 | | 0 | 0 | |
| 22 | | 1.6 | 19 | 22 | 108 | 24 | 16 | 1.3 | | 0 | 0 | |
| 23 | | 1.3 | 25 | 21 | 55 | 15 | 14 | .3 | | 0 | 0 | |
| 24 | | 1.3 | 26 | 19 | 37 | 15 | 13 | .2 | | 0 | 0 | |
| 25 | | 1.6 | 27 | 14 | 27 | 15 | 12 | .2 | | 0 | 0 | |
| 26 | | | | | | | | | e.03 | | 0 | 0 |
| 27 | | 1.9 | 27 | 14 | 22 | 15 | 12 | .2 | | 0 | 0 | |
| 28 | | 1.9 | 27 | 14 | 20 | a12 | 11 | .2 | | 0 | 0 | |
| 29 | | a1.0 | 27 | 13 | 15 | a8 | 14 | .1 | | 0 | 0 | |
| 30 | | a1.0 | 172 | 13 | - | a5 | 26 | .2 | | 0 | 0 | |
| 31 | | 1.3 | 183 | 13 | - | a6 | 21 | .2 | | 0 | 0 | |
| | | - | 132 | 13 | - | a7 | - | .2 | | 0 | 0 | |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|-------|---------------------|
| October..... | 0.51 | - | - | 0.010 | 0.6 |
| November..... | 14.58 | 1.9 | - | .496 | 30 |
| December..... | 1,194.6 | 183 | 1.6 | 38.5 | 2,370 |
| Calendar year 1941..... | 29,751.01 | 1,550 | 0 | 81.5 | 59,010 |
| January..... | 997 | 92 | 13 | 32.2 | 1,980 |
| February..... | 432.3 | 108 | 1.6 | 15.4 | 557 |
| March..... | 634.3 | 56 | 3.3 | 20.5 | 1,260 |
| April..... | 637 | 60 | 8 | 21.2 | 1,260 |
| May..... | 131.0 | 18 | .1 | 4.23 | 260 |
| June..... | 1.80 | -1 | 0 | .060 | 3.6 |
| July..... | .80 | 0 | 0 | .006 | .4 |
| August..... | .46 | .2 | 0 | .015 | .9 |
| September..... | 0 | 0 | 0 | 0 | 0 |
| Water year 1941-42..... | 4,043.86 | 183 | 0 | 11.1 | 8,020 |

Peak discharge.- Dec. 10 (9 p.m.) 450 sec.-ft.; Dec. 29 (10 a.m.) 240 sec.-ft.; Dec. 30 (6:30 p.m.) 205 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and flow at related stations.

e Daily discharge less than 0.1 second-foot.

f Computed on basis of partly estimated gage-height record.

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Rock Creek near Valyermo, Calif.

Location.- Water-stage recorder, lat. 34°25'10", long. 117°50'25", in NE¼ sec. 20, T. 4 N., R. 9 W., 1½ miles southeast of Valyermo. Altitude of gage, about 4,050 feet.

Drainage area.- 23.0 square miles.

Records available.- January 1923 to September 1937, May 1938 to September 1942.

Average discharge.- 18 years (1923-37, 1938-42), 14.5 second-feet.

Extremes.- Maximum discharge during year, 175 second-feet Aug. 10 (gage height, 2.90 feet); minimum, 3.5 second-feet Sept. 25-30.

1923-42: Maximum discharge, 8,300 second-feet Mar. 2, 1938, by slope-area method; minimum, 1.2 second-feet Aug. 22, 1925.

Remarks.- Records good. No diversions above station.

Cooperation.- Results of 12 discharge measurements furnished by Los Angeles County Flood Control District, through H. E. Hedger, chief engineer, and M. E. Salsbury, acting chief engineer during the war emergency.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 13 | 12 | 10 | 12 | 11 | 8 | 9 | 12 | 8.5 | 6.5 | 5 | 5 |
| 2 | 13 | 12 | 10 | 12 | 11 | 8.5 | 9.5 | 12 | 8.5 | 6.5 | 5 | 5 |
| 3 | 14 | 12 | 12 | 12 | 11 | 6.5 | 10 | 12 | 8.5 | 6.5 | 4.7 | 5 |
| 4 | 13 | 11 | 12 | 12 | 11 | 8.5 | 23 | 12 | 8.5 | 6.5 | 4.4 | 5 |
| 5 | 12 | 11 | 12 | 11 | 11 | 6.5 | 18 | 12 | 8.5 | 6.5 | 4.4 | 5 |
| 6 | 12 | 11 | 12 | 11 | 11 | 8.5 | 15 | 12 | 8.5 | 6.5 | 4.4 | 4.7 |
| 7 | 13 | 11 | 12 | 11 | 11 | 8.5 | 13 | 12 | 8.5 | 6.5 | 4.4 | 4.7 |
| 8 | 12 | 11 | 12 | 11 | 11 | 8 | 12 | 12 | 8.5 | 6.5 | 4.4 | 4.7 |
| 9 | 12 | 11 | 12 | 11 | 11 | 8 | 12 | 12 | 8.5 | 6.5 | 4.7 | 4.7 |
| 10 | 13 | 10 | 17 | 12 | 10 | 8 | 15 | 12 | 8.5 | 6.5 | 24 | 4.7 |
| 11 | 12 | 10 | 14 | 12 | 10 | 8.5 | 21 | 12 | 8 | 6.5 | 10 | 4.4 |
| 12 | 12 | 10 | 12 | 12 | 10 | 8.5 | 20 | 12 | 17.5 | 6.5 | 8.5 | 4.4 |
| 13 | 12 | 10 | 12 | 11 | 10 | 8.5 | 19 | 12 | 17.5 | 6.5 | 17.5 | 4.4 |
| 14 | 12 | 10 | 12 | 11 | 10 | 9 | 19 | 12 | 17 | 6.5 | 17 | 4.1 |
| 15 | 12 | 10 | 12 | 11 | 9.5 | 9.5 | 19 | 11 | 17 | 6.5 | 7 | 4.1 |
| 16 | 12 | 10 | 12 | 12 | 9.5 | 10 | 17 | 11 | 11 | 6.5 | 6.5 | 4.1 |
| 17 | 12 | 10 | 12 | 12 | 9 | 10 | 17 | 11 | 11 | 6.5 | 6.5 | 4.1 |
| 18 | 12 | 10 | 12 | 12 | 8.5 | 10 | 16 | 11 | 11 | 6.5 | 6.5 | 4.1 |
| 19 | 12 | 11 | 12 | 11 | 8.5 | 10 | 15 | 10 | 11 | 6.5 | 6 | 4.1 |
| 20 | 12 | 11 | 12 | 11 | 8 | 10 | 15 | 10 | 11 | 6.5 | 6 | 4.1 |
| 21 | 12 | 11 | 12 | 11 | 9 | 10 | 17 | 10 | 11 | 6.5 | 6 | 4.1 |
| 22 | 12 | 11 | 12 | 11 | 11 | 10 | 17 | 11 | 11 | 6.5 | 6 | 4.1 |
| 23 | 13 | 11 | 12 | 11 | 9 | 9.5 | 16 | 10 | 11 | 6.5 | 6 | 4.1 |
| 24 | 14 | 11 | 12 | 10 | 8.5 | 9.5 | 15 | 10 | 11 | 6.5 | 6 | 4.1 |
| 25 | 12 | 10 | 12 | 9 | 8.5 | 9.5 | 14 | 10 | 11 | 6.5 | 6 | 4.1 |
| 26 | 12 | 10 | 12 | 9.5 | 8.5 | 9.5 | 14 | 10 | 11 | 6.5 | 6 | 4.1 |
| 27 | 12 | 10 | 12 | 11 | 8.5 | 9.5 | 14 | 9.5 | 11 | 6.5 | 6 | 4.1 |
| 28 | 12 | 10 | 13 | 12 | 8.5 | 9 | 14 | 9.5 | 11 | 6.5 | 6 | 4.1 |
| 29 | 12 | 10 | 15 | 12 | - | 8.5 | 14 | 9.5 | 11 | 6.5 | 6 | 4.1 |
| 30 | 12 | 10 | 13 | 12 | - | 8.5 | 13 | 9 | 11 | 6.5 | 6 | 4.1 |
| 31 | 12 | - | 12 | 12 | - | 8.5 | - | 9 | 11 | 6.5 | 6 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 382 | 14 | 12 | 12.3 | 758 |
| November..... | 318 | 12 | 10 | 10.6 | 651 |
| December..... | 350 | 17 | 10 | 12.5 | 754 |
| Calendar year 1941..... | 18,650 | 410 | 10 | 51.1 | 37,000 |
| January..... | 350.5 | 12 | 9 | 11.3 | 696 |
| February..... | 273.5 | 11 | 8 | 9.77 | 542 |
| March..... | 279.0 | 10 | 8 | 9.00 | 555 |
| April..... | 462.5 | 23 | 9 | 15.4 | 917 |
| May..... | 359.5 | 12 | 9 | 11.0 | 675 |
| June..... | 220.5 | 8.5 | 6.5 | 7.35 | 457 |
| July..... | 189.5 | 6.5 | 5 | 6.11 | 376 |
| August..... | 202.9 | 24 | 4.4 | 6.55 | 402 |
| September..... | 131.4 | 5 | 4.1 | 4.36 | 251 |
| Water year 1941-42..... | 3,529.3 | 24 | 4.1 | 9.67 | 7,000 |

Peak discharge.- Dec. 10 (5 p.m.) 32 sec.-ft.; Apr. 4 (8 a.m.) 29 sec.-ft.; Aug. 10 (2:30 a.m.) 175 sec.-ft.

a No gage-height record; discharge computed on the basis of two discharge measurements, recorded range in stage, and usual pattern of diurnal fluctuation.

f Computed on basis of partly estimated gage-height record.

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Little Rock Creek near Little Rock, Calif.

Location.- Water-stage recorder, lat. 34°27'50", long. 118°01'05", about a quarter of a mile upstream from Santiago Creek and 5 miles south of Little Rock, Los Angeles County. Altitude of gage, about 3,290 feet.

Drainage area.- 49.0 square miles.

Records available.- October 1930 to September 1942 (1937-38 and 1938-39 incomplete).

Average discharge.- 10 years (1930-37, 1939-42), 19.3 second-feet.

Extremes.- Maximum discharge during year, 92 second-feet Apr. 4 (gage height, 2.04 feet); no flow Aug. 21 to Sept. 30.

1930-42: Maximum discharge, 17,000 second-feet (estimated) Mar. 2, 1939; no flow part of each year.

Cooperation.- Records furnished by Los Angeles County Flood Control District, through H. E. Hedger, chief engineer, and M. E. Salsbury, acting chief engineer during the war emergency.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 2.0 | 4.8 | 5.5 | 14 | 13 | 8 | 11 | 10 | 4.1 | 0.8 | 0.1 | |
| 2 | 2.1 | 4.6 | 5 | 11 | 11 | 8.5 | 12 | 10 | 3.9 | .7 | .1 | |
| 3 | 2.1 | 4.6 | 6 | 10 | 11 | 9 | 13 | 9.5 | 3.7 | .6 | .1 | |
| 4 | 2.0 | 4.6 | 8.5 | 10 | 9.5 | 9 | 55 | 9.5 | 3.5 | .6 | .1 | |
| 5 | 2.1 | 4.2 | 7 | 10 | 9.5 | 9 | 44 | 8.5 | 3.0 | .5 | .1 | |
| 6 | 2.3 | 4.1 | 6 | 10 | 9 | 9.5 | 31 | 8.5 | 2.8 | .4 | .1 | |
| 7 | 2.5 | 4.2 | 6 | 10 | 9 | 9 | 24 | 8.5 | 2.7 | .4 | .1 | |
| 8 | 2.5 | 4.2 | 6.5 | 12 | 8.5 | 9 | 20 | 6 | 2.6 | .4 | .1 | |
| 9 | 2.6 | 4.2 | 5.5 | 16 | S | 8.5 | 20 | 8 | 2.5 | .3 | .1 | |
| 10 | 2.4 | 4.2 | 28 | 17 | S | 8.5 | 20 | S | 2.4 | .5 | 2.6 | |
| 11 | 2.3 | 4.4 | 31 | 17 | 7.5 | 9.5 | 36 | 8.5 | 2.3 | .2 | .8 | |
| 12 | 2.8 | 4.6 | 16 | 17 | 7.5 | 10 | 29 | 9 | 2.2 | .2 | .6 | |
| 13 | 3.2 | 4.8 | 12 | 18 | 7.5 | 10 | 25 | 8.5 | 2.2 | .2 | .6 | |
| 14 | 3.0 | 5 | 11 | 18 | 7.5 | 11 | 28 | 8.5 | 2.1 | .2 | .5 | |
| 15 | 2.7 | 4.8 | 11 | 18 | 7 | 13 | 30 | 6 | 1.9 | .2 | .4 | |
| 16 | 2.7 | 4.8 | 11 | 17 | 7.5 | 13 | 25 | 7.5 | 1.7 | .2 | .2 | |
| 17 | 2.7 | 4.8 | 11 | 16 | 7 | 14 | 24 | 7.5 | 1.6 | .2 | .2 | |
| 18 | 2.7 | 4.8 | 10 | 15 | 7.5 | 16 | 20 | 7 | 1.5 | .2 | .1 | |
| 19 | 2.7 | 5 | 13 | 13 | 7 | 18 | 17 | 6.5 | 1.4 | .2 | .1 | |
| 20 | 3.0 | 5 | 11 | 12 | 7 | 16 | 15 | 6 | 1.2 | .2 | .1 | |
| 21 | 3.5 | 4.8 | 10 | 11 | 8 | 15 | 17 | 5.5 | 1.1 | .2 | 0 | |
| 22 | 10 | 4.8 | 9 | 12 | 14 | 13 | 18 | 5 | 1.0 | .2 | 0 | |
| 23 | 10 | 4.8 | 9 | 15 | 10 | 12 | 16 | 5.5 | 1.0 | .2 | 0 | |
| 24 | 12 | 4.8 | 8.5 | 13 | 9 | 12 | 14 | 5.5 | 1.0 | .2 | 0 | |
| 25 | 11 | 4.6 | 8 | 12 | 8.5 | 12 | 13 | 4.8 | .9 | .1 | 0 | |
| 26 | 8.5 | 4.6 | 8 | 15 | 8.5 | 11 | 12 | 5 | .9 | .1 | 0 | |
| 27 | 8 | 4.6 | 8.5 | 18 | 8 | 10 | 12 | 4.6 | .9 | .1 | 0 | |
| 28 | 8.5 | 4.6 | 9 | 20 | 8.5 | 10 | 12 | 4.4 | .8 | .1 | 0 | |
| 29 | 8 | 4.8 | 24 | 18 | - | 9.5 | 12 | 4.4 | .8 | .1 | 0 | |
| 30 | 6.5 | 5 | 20 | 16 | - | 9.5 | 11 | 4.4 | .8 | .1 | 0 | |
| 31 | 5.5 | - | 15 | 14 | - | 9.5 | - | 4.2 | - | .1 | 0 | |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 141.9 | 12 | 2.0 | 4.58 | 281 |
| November..... | 139.1 | 5 | 4.1 | 4.64 | 276 |
| December..... | 349.0 | 31 | 5 | 11.3 | 692 |
| Calendar year 1941..... | 25,618.2 | 1,750 | 1.9 | 70.7 | 51,200 |
| January..... | 446 | 20 | 10 | 14.4 | 885 |
| February..... | 244.0 | 14 | 7 | 6.71 | 484 |
| March..... | 342.0 | 18 | 8 | 11.0 | 678 |
| April..... | 636 | 55 | 11 | 21.2 | 1,260 |
| May..... | 218.8 | 10 | 4.2 | 7.06 | 454 |
| June..... | 58.5 | 4.1 | .8 | 1.95 | 116 |
| July..... | 8.5 | .8 | .1 | .27 | 17 |
| August..... | 7.1 | 2.6 | 0 | .23 | 14 |
| September..... | 0 | 0 | 0 | 0 | 0 |
| Water year 1941-42..... | 2,590.9 | 55 | 0 | 7.10 | 5,140 |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

MONO LAKE BASIN

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Mono Lake near Mono Lake, Calif.

Location.- Staff gage, lat. 38°00', long. 119°08', in NE¼ sec. 31, T. 2 N., R. 26 E., 1 mile south of Mono Lake post office. Datum of gage is 6,390.66 feet above mean sea level, datum of 1929.

Records available.- June 1912 to September 1942; those prior to September 1934 are contained in Water-Supply Paper 765.

Extremes.- 1912-42: Maximum gage height observed, 37.4 feet July 18, 1919; minimum observed, 23.8 feet Nov. 18, 1935.

Cooperation.- Gage-height record furnished by City of Los Angeles.

| Gage height, in feet, water year October 1941 to September 1942 | | | |
|---|------|---------|------|
| Oct. 4 | 26.3 | Apr. 7 | 26.9 |
| 7 | 26.3 | 15 | 27.0 |
| 14 | 26.2 | 21 | 27.0 |
| 22 | 26.2 | 30 | 27.1 |
| 28 | 26.3 | | |
| | | May 5 | 27.1 |
| Nov. 3 | 26.4 | 13 | 27.0 |
| 10 | 26.3 | 18 | 27.1 |
| 19 | 26.3 | 29 | 27.1 |
| 24 | 26.2 | | |
| | | June 4 | 27.1 |
| Dec. 1 | 26.2 | 10 | 27.1 |
| 8 | 26.3 | 16 | 27.1 |
| 17 | 26.3 | 22 | 27.2 |
| 22 | 26.3 | 29 | 27.1 |
| | | | |
| Jan. 3 | 26.5 | July 3 | 27.2 |
| 12 | 26.6 | 8 | 27.2 |
| 19 | 26.5 | 17 | 27.3 |
| 29 | 26.6 | 22 | 27.3 |
| | | 28 | 27.3 |
| Feb. 7 | 26.7 | | |
| 12 | 26.7 | Aug. 4 | 27.3 |
| 16 | 26.7 | 12 | 27.3 |
| 23 | 26.7 | 19 | 27.2 |
| | | 26 | 27.2 |
| Mar. 2 | 26.7 | | |
| 10 | 26.8 | Sept. 2 | 27.1 |
| 16 | 26.8 | 12 | 27.0 |
| 23 | 26.8 | 14 | 27.0 |
| 30 | 26.9 | 21 | 26.9 |
| | | 28 | 26.8 |

Time basis: Pacific standard time prior to 2 a.m., Feb. 8, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

WALKER LAKE BASIN

Walker Lake near Hawthorne, Nev.

Location.- Benchmark at United States naval depot, lat. 38°35', long. 118°42', in NE¼NE¼ sec. 2, T. 8 N., R. 29 E., 6 miles northwest of Hawthorne. Benchmark is 4,053.41 feet above mean sea level, adjustment of 1912.

Records available.- August 1928 to September 1942. Occasional readings prior to August 1928.

Extremes.- 1928-42: Maximum elevation observed, 4,051.8 feet Mar. 13, 1928 (Indian Service); minimum observed, 4,018.1 feet Nov. 4, 1941, Jan. 10, 1942. Lake elevation, Sept. 27, 1908, 4,078.0 feet, observed by U.S. Geological Survey, adjustment of 1912.

Remarks.- Elevations determined by spirit leveling.

Cooperation.- Records furnished by U. S. Navy Department.

| Elevations, in feet, above mean sea level, water year, October 1941 to September 1942 | | | |
|---|---------|---------|---------|
| Oct. 10 | 4,018.2 | May 7 | 4,018.8 |
| Nov. 4 | 4,018.1 | June 6 | 4,018.8 |
| Dec. 9 | 4,017.9 | July 8 | 4,019.3 |
| Jan. 10 | 4,018.1 | Aug. 3 | 4,019.2 |
| Feb. 9 | 4,018.5 | Sept. 7 | 4,019.0 |
| Apr. 10 | 4,018.7 | | |

WALKER LAKE BASIN

Bridgeport Reservoir near Bridgeport, Calif.

Location.- Float gage or reference point, lat. 38°19'30", long. 119°12'50", at Bridgeport Dam on East Walker River, in SE¼ sec. 34, T. 6 N., R. 25 E., 4½ miles north of Bridgeport. Datum of gage is at mean sea level.

Drainage area.- 362 square miles.

Records available.- October 1931 to September 1942 in reports of Geological Survey. March 1926 to September 1942 in files of Walker River Irrigation District.

Extremes.- Maximum contents during year, 43,820 acre-feet Apr. 1 (elevation, 6,460.45 feet); minimum, 28,820 acre-feet Sept. 30 (elevation, 6,454.85 feet).
1926-42: Maximum contents, 44,580 acre-feet June 12, 1938 (elevation, 6,460.7 feet); no storage during fall of 1929, 1930.

Remarks.- Reservoir is formed by earth-fill, rock-faced dam; storage began Dec. 8, 1923; dam completed in November 1924. Capacity, 42,460 acre-feet between elevations 6,412 feet (sill of outlet gate) and 6,460 feet (crest of spillway). No dead storage. Water is used for irrigation in Walker River Irrigation District. Contents correspond to gage reading made about 8 a.m. daily.

Cooperation.- Elevations and capacity table furnished by Walker River Irrigation District.

Contents in acre-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 29,160 | 33,730 | 38,150 | 40,710 | 34,510 | 36,100 | 43,820 | 41,290 | 38,570 | 41,730 | 42,760 | 33,350 |
| 2 | - | 33,980 | 38,290 | 40,710 | 34,640 | 36,250 | 43,520 | 41,140 | 38,150 | 41,890 | 42,610 | 33,090 |
| 3 | - | 34,240 | 38,570 | 40,420 | 34,640 | 36,360 | 43,220 | 41,140 | 37,870 | 42,320 | 42,610 | 32,710 |
| 4 | - | 34,640 | 38,840 | 40,120 | 34,510 | 36,500 | 43,070 | 41,140 | 37,320 | 42,760 | 42,460 | 32,330 |
| 5 | 29,160 | 34,770 | 39,540 | 39,830 | 34,640 | 36,630 | 43,220 | 40,860 | 37,320 | 43,220 | 42,460 | 32,080 |
| 6 | 29,160 | 34,900 | 40,270 | 39,540 | 34,770 | 36,760 | 43,220 | 40,710 | 37,040 | 43,520 | 42,170 | 31,820 |
| 7 | 29,280 | 35,040 | 40,560 | 39,260 | 34,770 | 37,040 | 43,070 | 40,560 | 36,900 | 43,520 | 41,730 | 31,570 |
| 8 | 29,280 | 35,170 | 40,860 | 39,260 | 34,640 | 37,040 | 43,220 | 40,270 | 36,760 | 43,520 | 41,290 | 31,330 |
| 9 | 29,520 | 35,300 | 41,290 | 38,980 | 34,510 | 37,180 | 42,920 | 40,120 | 36,760 | 43,370 | 40,850 | 30,970 |
| 10 | 29,640 | 35,440 | 42,460 | 38,710 | 34,640 | 37,320 | 42,760 | 39,980 | 37,040 | 43,370 | 40,420 | 30,610 |
| 11 | 29,880 | 35,570 | 42,760 | 38,430 | 34,640 | 37,590 | 42,460 | 39,830 | 37,040 | 43,370 | 39,980 | 30,360 |
| 12 | 30,000 | 35,700 | 42,920 | 38,150 | 34,640 | 37,870 | 42,760 | 39,680 | 37,180 | 43,220 | 39,540 | 30,120 |
| 13 | 30,120 | 35,960 | 42,920 | 37,870 | 34,640 | 38,150 | 42,760 | 39,540 | 37,320 | 43,070 | 39,120 | 30,000 |
| 14 | 30,120 | 36,230 | 42,920 | 37,590 | 34,640 | 38,430 | 43,070 | 39,260 | 37,460 | 42,910 | 38,840 | 29,760 |
| 15 | 30,240 | 36,360 | 43,070 | 37,180 | 34,640 | 38,710 | 42,920 | 39,120 | 37,590 | 42,910 | 38,570 | 29,760 |
| 16 | 30,360 | 36,500 | 43,070 | 36,760 | 34,770 | 38,980 | 43,070 | 38,980 | 38,150 | 42,910 | 38,430 | 29,760 |
| 17 | 30,480 | 36,630 | 42,920 | 36,500 | 34,900 | 39,260 | 42,920 | 38,840 | 38,980 | 43,220 | 38,150 | 29,520 |
| 18 | 30,480 | 36,760 | 42,760 | 36,230 | 35,040 | 39,540 | 42,760 | 38,710 | 39,540 | 43,370 | 37,870 | 29,520 |
| 19 | 30,480 | 36,760 | 42,610 | 35,960 | 35,040 | 39,680 | 42,760 | 38,570 | 39,260 | 43,520 | 37,460 | 29,520 |
| 20 | 30,610 | 36,900 | 42,760 | 35,700 | 35,170 | 39,830 | 42,460 | 38,430 | 39,260 | 43,520 | 37,180 | 29,520 |
| 21 | 30,730 | 36,900 | 42,610 | 35,440 | 35,170 | 40,120 | 42,760 | 38,150 | 39,540 | 43,370 | 36,760 | 29,400 |
| 22 | 30,850 | 37,040 | 42,460 | 35,040 | 35,300 | 40,420 | 43,070 | 38,010 | 39,830 | 43,370 | 36,360 | 29,280 |
| 23 | 30,970 | 37,180 | 42,170 | 34,640 | 35,300 | 40,560 | 42,920 | 37,870 | 40,120 | 43,220 | 36,100 | 29,160 |
| 24 | 31,210 | 37,320 | 41,890 | 34,380 | 35,440 | 40,860 | 42,460 | 38,150 | 40,560 | 43,220 | 35,700 | 29,040 |
| 25 | 31,570 | 37,460 | 41,890 | 34,580 | 35,570 | 41,290 | 42,460 | 38,010 | 41,000 | 43,370 | 35,440 | 29,040 |
| 26 | 32,080 | 37,590 | 41,580 | 34,510 | 35,700 | 41,580 | 42,460 | 38,150 | 41,290 | 43,370 | 35,040 | 28,930 |
| 27 | 32,590 | 37,730 | 41,290 | 34,510 | 35,830 | 41,890 | 42,170 | 38,430 | 41,580 | 43,370 | 34,770 | 28,930 |
| 28 | 32,840 | 37,870 | 41,140 | 34,640 | 35,960 | 42,170 | 41,890 | 38,430 | 41,290 | 43,370 | 34,640 | 28,930 |
| 29 | 33,090 | 37,870 | 41,000 | 34,640 | - | 42,610 | 41,580 | 38,570 | 41,290 | 43,070 | 34,110 | 28,930 |
| 30 | 33,350 | 38,010 | 41,000 | 34,640 | - | 42,610 | 41,580 | 38,150 | 41,580 | 42,910 | 33,860 | 28,820 |
| 31 | 33,480 | - | 40,860 | 34,640 | - | 43,370 | - | 38,430 | - | 42,760 | 33,600 | - |

Monthly elevation and contents, water year October 1941 to September 1942

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents during month (acre-feet) |
|------------------------|------------------|----------------------|---|
| Oct. 1..... | 6,455.00 | 29,160 | +4,570 |
| Nov. 1..... | 6,456.85 | 33,730 | +4,420 |
| Dec. 1..... | 6,458.50 | 38,150 | +2,560 |
| Calendar year 1941.... | - | - | +14,620 |
| Jan. 1..... | 6,459.40 | 40,710 | -6,200 |
| Feb. 1..... | 6,457.15 | 34,510 | +1,590 |
| Mar. 1..... | 6,457.75 | 36,100 | +7,720 |
| Apr. 1..... | 6,460.45 | 43,820 | -2,550 |
| May 1..... | 6,459.60 | 41,290 | -2,720 |
| June 1..... | 6,458.65 | 38,570 | +3,160 |
| July 1..... | 6,459.75 | 41,730 | +1,030 |
| Aug. 1..... | 6,460.10 | 42,760 | -9,410 |
| Sept. 1..... | 6,456.70 | 33,360 | +4,530 |
| Oct. 1..... | 6,454.85 | 28,820 | - |
| Water year 1941-42.... | - | - | -340 |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

East Walker River near Bridgeport, Calif.

Location.- Water-stage recorder, lat. 38°19'40", long. 119°12'50", in SW1/4 sec. 34, T. 8 N., R. 25 E., 1,500 feet downstream from Bridgeport Reservoir, 5 miles north of Bridgeport, and 10 miles upstream from Sweetwater Creek.

Drainage area.- 362 square miles.

Records available.- October 1921 to September 1942. July 1911 to September 1914 at site 1 1/2 miles upstream (gage heights only).

Average discharge.- 19 years (1922-24, 1925-42), 125 second-feet.

Extremes (regulated).- Maximum discharge during year, 674 second-foot June 18 (gage height, 2.90 feet); minimum, 8 second-foot Nov. 2-11, Nov. 14 to Dec. 9, 1921-42; Maximum discharge observed, 1,220 second-foot June 12, 1938 (gage height, 6.74 feet, datum then in use.); minimum observed, 2 second-foot many days when reservoir gates were closed.

Remarks.- Records good. Flow affected by irrigation of meadow and pasture lands near Bridgeport and regulated by Bridgeport Reservoir (see preceding page).

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|----|-----|-----|-----|-----|
| 0.2 | 8 | 1.0 | 121 | 2.5 | 554 |
| .3 | 16 | 1.3 | 183 | 2.8 | 638 |
| .4 | 26 | 1.6 | 258 | 3.0 | 710 |
| .6 | 52 | 1.9 | 342 | | |
| .8 | 84 | 2.2 | 456 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 81 | 13 | 8 | 232 | 183 | 52 | 307 | 222 | 342 | 335 | 245 | 291 |
| 2 | 81 | 8 | 8 | 277 | 183 | 52 | 293 | 214 | 362 | 305 | 253 | 282 |
| 3 | 66 | 8 | 8 | 261 | 170 | 52 | 282 | 214 | 372 | 319 | 258 | 263 |
| 4 | 56 | 8 | 8 | 288 | 161 | 52 | 313 | 183 | 391 | 388 | 253 | 263 |
| 5 | 58 | 8 | 8 | 288 | 161 | 52 | 310 | 155 | 397 | 503 | 258 | 263 |
| 6 | 58 | 8 | 8 | 288 | 161 | 52 | 296 | 157 | 397 | 603 | 307 | 263 |
| 7 | 58 | 8 | 8 | 285 | 161 | 52 | 280 | 197 | 397 | 620 | 372 | 263 |
| 8 | 58 | 8 | 8 | 285 | 161 | 37 | 269 | 217 | 397 | 617 | 353 | 263 |
| 9 | 51 | 8 | 8 | 285 | 140 | 26 | 253 | 217 | 403 | 617 | 333 | 263 |
| 10 | 46 | 8 | 49 | 285 | 125 | 26 | 258 | 217 | 403 | 586 | 325 | 248 |
| 11 | 45 | 8 | 95 | 285 | 117 | 26 | 261 | 217 | 403 | 514 | 325 | 227 |
| 12 | 45 | 9 | 130 | 282 | 102 | 26 | 261 | 217 | 403 | 480 | 325 | 217 |
| 13 | 45 | 9 | 149 | 292 | 98 | 26 | 274 | 217 | 403 | 451 | 325 | 202 |
| 14 | 45 | 8 | 148 | 282 | 98 | 26 | 274 | 217 | 403 | 432 | 325 | 193 |
| 15 | 45 | 8 | 157 | 282 | 98 | 26 | 274 | 217 | 319 | 400 | 325 | 185 |
| 16 | 45 | 8 | 168 | 282 | 98 | 26 | 277 | 217 | 322 | 409 | 325 | 165 |
| 17 | 37 | 8 | 174 | 282 | 82 | 26 | 266 | 217 | 534 | 419 | 325 | 165 |
| 18 | 27 | 8 | 172 | 282 | 74 | 26 | 263 | 217 | 603 | 422 | 325 | 142 |
| 19 | 21 | 8 | 172 | 269 | 74 | 26 | 261 | 238 | 606 | 422 | 325 | 140 |
| 20 | 17 | 8 | 170 | 268 | 74 | 26 | 268 | 248 | 603 | 419 | 325 | 140 |
| 21 | 13 | 8 | 170 | 258 | 76 | 26 | 266 | 262 | 610 | 397 | 325 | 138 |
| 22 | 12 | 8 | 168 | 258 | 76 | 26 | 266 | 269 | 617 | 375 | 325 | 138 |
| 23 | 12 | 8 | 168 | 242 | 76 | 26 | 263 | 269 | 600 | 339 | 325 | 125 |
| 24 | 12 | 8 | 168 | 232 | 66 | 26 | 261 | 269 | 586 | 333 | 325 | 115 |
| 25 | 12 | 8 | 168 | 232 | 52 | 26 | 255 | 269 | 586 | 336 | 325 | 115 |
| 26 | 12 | 8 | 168 | 232 | 52 | 30 | 255 | 294 | 537 | 322 | 322 | 115 |
| 27 | 13 | 8 | 168 | 232 | 52 | 34 | 250 | 350 | 477 | 319 | 322 | 115 |
| 28 | 13 | 8 | 168 | 217 | 52 | 70 | 250 | 372 | 438 | 359 | 368 | 115 |
| 29 | 13 | 8 | 170 | 207 | - | 128 | 237 | 352 | 397 | 319 | 319 | 104 |
| 30 | 14 | 8 | 217 | 195 | - | 250 | 227 | 342 | 372 | 299 | 316 | 93 |
| 31 | 13 | - | 205 | 183 | - | 302 | - | 342 | - | 274 | 307 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,124 | 81 | 12 | 36.3 | 2,230 |
| November..... | 247 | 13 | 8 | 8.2 | 490 |
| December..... | 3,593 | 217 | 8 | 116 | 7,130 |
| Calendar year 1941..... | 63,031 | 596 | 8 | 173 | 126,000 |
| January..... | 8,048 | 288 | 183 | 260 | 16,960 |
| February..... | 3,023 | 183 | 52 | 108 | 6,000 |
| March..... | 1,717 | 302 | 26 | 55.4 | 3,410 |
| April..... | 8,068 | 313 | 227 | 269 | 16,000 |
| May..... | 7,605 | 372 | 155 | 245 | 16,080 |
| June..... | 13,680 | 617 | 342 | 456 | 27,130 |
| July..... | 12,811 | 620 | 274 | 416 | 26,610 |
| August..... | 9,816 | 388 | 245 | 317 | 19,470 |
| September..... | 5,591 | 291 | 93 | 186 | 11,090 |
| Water year 1941-42..... | 75,423 | 620 | 8 | 207 | 149,600 |

Note.- Discharge computed from staff-gage readings Nov. 18 to Dec. 9, May 6 to June 8.
 Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
 To convert war time to standard time, subtract 1 hour.

WALKER LAKE BASIN

West Walker River below East Fork, near Coleville, Calif.

Location.- Water-stage recorder, lat. 38°22'45", long. 119°27'00", in SE $\frac{1}{4}$ sec. 9, T. 6 N., R. 23 E., 200 feet upstream from bridge on U.S. Highway 396, 75 feet downstream from East Fork, and 13 miles southeast of Coleville.

Drainage area.- 182 square miles.

Records available.- April 1938 to September 1942. October 1902 to July 1908 at site 9 $\frac{1}{2}$ miles downstream; March 1909 to August 1910 and June 1915 to March 1938 at site 10 miles downstream, published as West Walker River near Coleville, Calif.

Extremes.- Maximum discharge during year, 1,900 second-feet July 5 (gauge height, 5.02 feet); minimum, 42 second-feet Sept. 30.
1938-42: Maximum discharge, 2,490 second-feet June 9, 1938 (gauge height, 4.90 feet, site and datum then in use), from rating curve extended above 1,800 second-feet; minimum, 6 second-feet Dec. 10, 1940.
Maximum discharge known, 5,800 second-feet Dec. 11, 1937, by slope-area method.

Remarks.- Records good except those for periods of ice effect, doubtful and no gage-height records, which are fair. Station is above diversions except a few small ranch ditches. Flow very slightly regulated by Poor Lake Reservoir (capacity unknown), 7 miles upstream.

Rating table, water year 1941-42 except period of ice effect
(gauge height, in feet, and discharge, in second-feet)

| | | | | | | | |
|-----|----|-----|-----|-----|-----|-----|-------|
| 0.7 | 6 | 1.2 | 40 | 2.0 | 173 | 3.5 | 768 |
| .8 | 10 | 1.4 | 65 | 2.3 | 249 | 4.0 | 1,090 |
| .9 | 15 | 1.6 | 96 | 2.6 | 345 | 4.5 | 1,470 |
| 1.0 | 22 | 1.8 | 132 | 3.0 | 502 | 5.0 | 1,880 |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|-------|------|------|------|------|-------|-------|-------|------|-------|
| 1 | 56 | 56 | 57 | b72 | 99 | 74 | 169 | 328 | 843 | 1,260 | 295 | 86 |
| 2 | 51 | 156 | 299 | b60 | 96 | 74 | 194 | 285 | 652 | 1,320 | 273 | 80 |
| 3 | 47 | 156 | 1,070 | b65 | 93 | 78 | 249 | 285 | 862 | 1,430 | 252 | 80 |
| 4 | 48 | 150 | 370 | b70 | 88 | 88 | 264 | 301 | 1,040 | 1,870 | 229 | 80 |
| 5 | 47 | 134 | 270 | b75 | 96 | 93 | 235 | 328 | 1,270 | 1,610 | 241 | 78 |
| 6 | 47 | 124 | 221 | b80 | 90 | 94 | 224 | 408 | 1,490 | 1,430 | 249 | 77 |
| 7 | 48 | 115 | 189 | b100 | 88 | 90 | 208 | 520 | 1,450 | 1,350 | 235 | 74 |
| 8 | 50 | d100 | 173 | 138 | 88 | 104 | 224 | 641 | 1,270 | 1,220 | 235 | 70 |
| 9 | 50 | d90 | 162 | 128 | 93 | 119 | 261 | 709 | 1,460 | 1,090 | 235 | 70 |
| 10 | 50 | d80 | 154 | a110 | 91 | 126 | 292 | 598 | 1,580 | 1,030 | 255 | 80 |
| 11 | a49 | d72 | 140 | a105 | 80 | 132 | 301 | 539 | 1,540 | 992 | 256 | 85 |
| 12 | a47 | a52 | 124 | a105 | 88 | 132 | 359 | 459 | 1,500 | 843 | 243 | 77 |
| 13 | a50 | a64 | 122 | a105 | 86 | 121 | 419 | 439 | 1,450 | 818 | 235 | 71 |
| 14 | a52 | a63 | 117 | 103 | 85 | 104 | 404 | 415 | 1,500 | 954 | 235 | 66 |
| 15 | a52 | a62 | 124 | 103 | 99 | 117 | 349 | 415 | 1,630 | 1,120 | 208 | 64 |
| 16 | a52 | a62 | 121 | 93 | 94 | 110 | 349 | 400 | 1,490 | 1,120 | 196 | 61 |
| 17 | 47 | 65 | 110 | b92 | 91 | 110 | 328 | 396 | 1,420 | 947 | 184 | 60 |
| 18 | 47 | 53 | 126 | b92 | 93 | 113 | 301 | 419 | 1,490 | 843 | 162 | 60 |
| 19 | 46 | 70 | 115 | b92 | 91 | 106 | 335 | 558 | 1,410 | 799 | 152 | 60 |
| 20 | d55 | 76 | 111 | b92 | 85 | 99 | 359 | 836 | 1,250 | 738 | 148 | 58 |
| 21 | d70 | 80 | 101 | b92 | 80 | 103 | 427 | 1,100 | 1,210 | 721 | 136 | 58 |
| 22 | d80 | 77 | 104 | 91 | 80 | 108 | 502 | 1,360 | 1,300 | 733 | 128 | 56 |
| 23 | d75 | 72 | 91 | 91 | 88 | 111 | 525 | 1,320 | 1,370 | 680 | 119 | 56 |
| 24 | d8 | 71 | 88 | 91 | 91 | 110 | 451 | 1,280 | 1,410 | 636 | 128 | 55 |
| 25 | a60 | 70 | b86 | 101 | 80 | 106 | 476 | 1,450 | 1,290 | 609 | 132 | 52 |
| 26 | a54 | 65 | b84 | 124 | 86 | 103 | 459 | 1,020 | 1,080 | 539 | 121 | 51 |
| 27 | a52 | 56 | b82 | 154 | 78 | 106 | 455 | 793 | 966 | 485 | 106 | 50 |
| 28 | a50 | 56 | b80 | 138 | 78 | 115 | 408 | 703 | 1,020 | 443 | 108 | 48 |
| 29 | a48 | 61 | b78 | 122 | - | 126 | 352 | 578 | 1,090 | 400 | 104 | 47 |
| 30 | a48 | 61 | b76 | 113 | - | 140 | 331 | 558 | 1,170 | 349 | 98 | 47 |
| 31 | 47 | - | b74 | 104 | - | 162 | - | 658 | - | 295 | 91 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October | 1,643 | 80 | 46 | 53.0 | 3,260 |
| November | 2,485 | 156 | 53 | 82.8 | 4,930 |
| December | 5,117 | 1,070 | 74 | 165 | 10,150 |
| Calendar year 1941 | 117,942 | 1,680 | - | 323 | 233,900 |
| January | 3,101 | 154 | 60 | 100 | 6,150 |
| February | 2,475 | 99 | 78 | 88.4 | 4,910 |
| March | 3,374 | 162 | 74 | 109 | 6,690 |
| April | 10,240 | 525 | 169 | 341 | 20,310 |
| May | 20,099 | 1,450 | 285 | 648 | 39,870 |
| June | 39,503 | 1,630 | 652 | 1,283 | 76,370 |
| July | 28,374 | 1,610 | 295 | 915 | 56,280 |
| August | 5,788 | 295 | 91 | 187 | 11,490 |
| September | 1,967 | 86 | 47 | 65.2 | 3,880 |
| Water year 1941-42 | 123,156 | 1,630 | 46 | 337 | 244,300 |

a No gage-height record; discharge computed on basis of records for Carson River near Carson, East Fork of Carson River near Gardnerville, and weather records.

b Stage-discharge relation affected by ice.

c Doubtful gage-height record; discharge computed on basis of records for Carson River near Carson, East Fork of Carson River near Gardnerville, and weather records.

Time basis, Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

WALKER LAKE BASIN

Topaz Reservoir near Topaz, Calif.

Location.- Float and staff gages at outlet works of Topaz Reservoir, lat. 38°41', long. 119°31', in sec. 28 T. 10 N., R. 22 E., 6 miles north of Topaz. Datum of gage is at mean sea level (levels by Walker River Irrigation District).

Records available.- October 1931 to September 1942.

Extremes.- Maximum contents observed during year, 60,200 acre-feet July 3, 6, 8, 10, 17, 20, 22, 24, 27 (elevation, 5,005.33 feet); minimum observed, 28,310 acre-feet Oct. 1 (elevation, 4,989.62 feet).

1931-42: Maximum contents observed, 60,240 acre-feet June 30, 1941 (elevation, 5,005.35 feet); minimum observed, 505 acre-feet, Oct. 22-25, 1931 (elevation, 4,972.63 feet).

Remarks.- Topaz Reservoir, formerly known as Alkali Lake, was formed by the diversion of water from West Walker River through a feeder canal and the construction of an outlet tunnel through a low saddle in rim of lake. Storage began Jan. 30, 1922. Usable capacity, 59,440 acre-feet between elevations 4,972.3 feet (lowest practical elevation for diversion through tunnel, bottom of outlet tunnel at elevation 4,970 feet) and 5,005 feet (3 feet below top of levee) above mean sea level. Capacity of reservoir increased from about 45,000 acre-feet to 59,440 acre-feet in October 1937 by an earth-fill, rock-faced levee at south end. Water is used for irrigation in Walker River irrigation district.

Cooperation.- Elevations furnished by the Walker River Irrigation District.

Contents, in acre-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 28,310 | - | - | - | - | - | - | 59,900 | 54,260 | 60,060 | - | - |
| 2 | - | - | - | - | 45,910 | - | - | - | - | 60,200 | 57,770 | 40,670 |
| 3 | 26,450 | 32,350 | - | - | - | - | 56,450 | - | - | - | - | 39,070 |
| 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| 5 | - | - | 40,970 | - | - | - | - | - | 53,680 | - | 57,050 | - |
| 6 | 26,450 | - | - | - | - | 48,030 | - | - | - | 60,200 | - | - |
| 7 | - | 33,510 | - | - | - | - | - | - | - | - | 55,450 | 35,480 |
| 8 | - | - | - | - | - | - | - | 59,100 | 53,460 | 60,200 | - | - |
| 9 | - | - | - | - | - | - | - | - | - | - | - | 37,190 |
| 10 | 28,970 | 34,320 | - | 46,010 | - | - | 58,300 | - | 53,130 | 60,200 | 53,530 | - |
| 11 | - | - | - | - | - | - | - | - | - | - | - | 36,560 |
| 12 | - | - | 42,900 | - | - | - | - | - | 53,680 | - | 52,100 | - |
| 13 | 29,230 | - | - | - | 45,800 | 49,740 | - | - | - | 60,010 | - | - |
| 14 | - | 35,240 | - | - | - | - | - | - | - | - | 51,110 | 35,060 |
| 15 | - | - | - | - | - | - | - | 57,390 | 54,820 | 60,080 | - | - |
| 16 | - | - | - | 45,910 | - | - | - | - | - | - | - | 34,270 |
| 17 | 29,410 | - | - | - | - | - | 60,130 | - | 55,990 | 60,200 | 49,570 | - |
| 18 | - | - | - | - | - | - | - | 56,230 | - | - | - | 35,580 |
| 19 | - | - | 44,340 | - | - | - | - | - | 57,410 | - | 48,560 | - |
| 20 | 29,670 | - | - | - | 46,220 | 51,880 | - | 55,780 | - | 60,200 | - | - |
| 21 | - | 36,650 | - | - | - | - | - | - | - | - | 47,540 | 32,690 |
| 22 | - | - | - | - | - | - | - | - | 58,360 | 60,200 | - | - |
| 23 | - | - | - | 45,800 | - | - | - | - | - | - | - | 32,280 |
| 24 | 30,200 | - | - | - | - | - | 59,900 | - | 59,320 | 60,200 | 46,140 | - |
| 25 | - | - | - | - | - | - | - | 55,130 | - | - | - | 31,780 |
| 26 | - | - | 45,490 | - | - | - | - | - | 59,670 | - | 45,240 | - |
| 27 | 30,550 | - | - | - | 47,070 | 53,420 | - | 55,130 | - | 60,200 | - | - |
| 28 | - | 38,000 | - | - | 47,150 | - | - | - | 59,900 | - | 43,740 | 31,120 |
| 29 | - | - | - | - | - | - | - | 54,910 | - | 60,010 | - | - |
| 30 | - | 38,290 | - | 45,910 | - | - | 59,900 | - | 59,970 | - | - | 30,760 |
| 31 | 31,440 | - | 46,540 | 45,910 | - | 54,460 | - | 54,460 | - | 59,320 | 41,630 | - |

Monthly elevation and contents, water year October 1941 to September 1942

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents during month (acre-feet) |
|-------------------------|------------------|----------------------|---|
| Sept. 30..... | 4,989.61 | 28,290 | - |
| Oct. 31..... | 4,991.40 | 31,440 | +3,150 |
| Nov. 30..... | 4,995.10 | 38,290 | +6,850 |
| Dec. 31..... | 4,999.15 | 46,540 | +8,250 |
| Calendar year 1941..... | - | - | +25,300 |
| Jan. 31..... | 4,998.85 | 45,910 | -650 |
| Feb. 28..... | 4,999.44 | 47,150 | +1,240 |
| Mar. 31..... | 5,002.80 | 54,460 | +7,310 |
| Apr. 30..... | 5,005.20 | 59,900 | +5,440 |
| May 31..... | 5,002.80 | 54,460 | -5,440 |
| June 30..... | 5,005.23 | 59,970 | +5,510 |
| July 31..... | 5,004.95 | 59,320 | -650 |
| Aug. 31..... | 4,996.78 | 41,630 | -17,690 |
| Sept. 30..... | 4,991.02 | 30,760 | -10,870 |
| Water year 1941-42..... | - | - | +2,470 |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

HUMBOLDT-CARSON SINK BASIN

CARSON RIVER BASIN

East Fork of Carson River near Gardnerville, Nev.

Location.- Water-stage recorder, lat. 38°51'30", long. 119°41'50", in NE¼ sec. 2, T. 11 N., R. 20 E., 2 miles east of Mud Lake Reservoir, 3 miles downstream from Leviathan Creek, and 7 miles southeast of Gardnerville.

Drainage area.- 360 square miles.

Records available.- May 1939 to September 1942. April 1890 to December 1893, October 1890 to December 1906, June to October 1917, December 1924 to September 1929, October 1835 to December 1937 at site 2 miles downstream; March 1908 to December 1910 at site 2 miles upstream.

Extremes.- Maximum discharge during year, 4,920 second-feet Dec. 3 (gage height, 6.00 feet); minimum, 60 second-feet Oct. 4, Nov. 20, 1890-93, 1900-1906, 1908-10, 1917, 1924-29, 1935-37, 1939-42. Maximum discharge, 12,000 second-feet Dec. 11, 1937 (gage destroyed by flood) computed on basis of slope-area determinations of flow of tributaries, 14 miles upstream; minimum discharge observed, 8 second-feet Dec. 4-10, 19-23, 1904.

Remarks.- Records good except those for period of ice effect, which are fair. Station is above all diversions in Carson Valley. Flow affected by diversions for irrigation and by several small reservoirs (total capacity about 5,000 acre-feet) above station.

Rating table, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|-----|-----|-------|-----|-------|
| 0.8 | 49 | 1.8 | 301 | 3.6 | 1,460 |
| .9 | 64 | 2.0 | 380 | 4.0 | 1,970 |
| 1.0 | 82 | 2.3 | 520 | 4.5 | 2,470 |
| 1.2 | 124 | 2.6 | 685 | 5.0 | 3,170 |
| 1.4 | 174 | 2.9 | 880 | 6.0 | 4,920 |
| 1.6 | 233 | 3.2 | 1,110 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|-------|-------|------|------|-------|-------|-------|-------|------|-------|
| 1 | 66 | 98 | 96 | 182 | 328 | 177 | 448 | 625 | 1,350 | 1,050 | 221 | 122 |
| 2 | 68 | 345 | 344 | 161 | 316 | 208 | 520 | 576 | 1,600 | 1,060 | 211 | 111 |
| 3 | 69 | 301 | 2,680 | b130 | 298 | 236 | 637 | 560 | 1,420 | 1,070 | 196 | 104 |
| 4 | 69 | 227 | 643 | b150 | 284 | 259 | 778 | 620 | 1,570 | 1,120 | 182 | 111 |
| 5 | 80 | 180 | 448 | b170 | 309 | 343 | 614 | 637 | 1,940 | 1,090 | 180 | 109 |
| 6 | 88 | 161 | 360 | 191 | 351 | 398 | 603 | 739 | 2,300 | 990 | 174 | 106 |
| 7 | 80 | 148 | 305 | 259 | 301 | 347 | 545 | 943 | 2,080 | 915 | 169 | 102 |
| 8 | 77 | 141 | 276 | 360 | 259 | 398 | 581 | 1,190 | 1,820 | 866 | 166 | 94 |
| 9 | 77 | 131 | 259 | 276 | 256 | 457 | 643 | 1,340 | 2,040 | 778 | 164 | 90 |
| 10 | 77 | 124 | 250 | 221 | 259 | 491 | 752 | 1,170 | 2,160 | 733 | 158 | 106 |
| 11 | 73 | 117 | 227 | 211 | 233 | 500 | 780 | 1,020 | 2,180 | 691 | 161 | 124 |
| 12 | 71 | 115 | 211 | 208 | 233 | 486 | 894 | 901 | 2,000 | 625 | 158 | 122 |
| 13 | 75 | 113 | 202 | 205 | 227 | 408 | 1,080 | 831 | 1,890 | 570 | 174 | 113 |
| 14 | 78 | 106 | 196 | 205 | 214 | 355 | 1,100 | 784 | 1,920 | 578 | 171 | 109 |
| 15 | 78 | 104 | 224 | 196 | 214 | 343 | 852 | 784 | 2,040 | 603 | 166 | 104 |
| 16 | 77 | 109 | 290 | 191 | 218 | 328 | 824 | 771 | 1,820 | 592 | 169 | 98 |
| 17 | 75 | 109 | 227 | 174 | 202 | 335 | 771 | 733 | 1,730 | 526 | 166 | 98 |
| 18 | 75 | 86 | 243 | 177 | 208 | 347 | 679 | 517 | 1,760 | 466 | 164 | 96 |
| 19 | 73 | 78 | 240 | 171 | 196 | 316 | 715 | 1,090 | 1,890 | 486 | 158 | 102 |
| 20 | 94 | 94 | 243 | 174 | 199 | 294 | 852 | 1,460 | 1,450 | 471 | 153 | 106 |
| 21 | 146 | 78 | 205 | 174 | 202 | 298 | 887 | 1,680 | 1,360 | 433 | 143 | 106 |
| 22 | 115 | 104 | 202 | 182 | 199 | 309 | 1,010 | 2,480 | 1,380 | 402 | a135 | 104 |
| 23 | 111 | 88 | 205 | 174 | 182 | 312 | 1,100 | 2,260 | 1,420 | 380 | a130 | 92 |
| 24 | 104 | 92 | 174 | 227 | 191 | 309 | 894 | 2,160 | 1,390 | 355 | a125 | 82 |
| 25 | 106 | 94 | 177 | 565 | 182 | 287 | 974 | 2,550 | 1,270 | 335 | a123 | 80 |
| 26 | 100 | 92 | 191 | 1,030 | 180 | 276 | 908 | 1,820 | 1,130 | 312 | a126 | 80 |
| 27 | 102 | 96 | 180 | 1,420 | 185 | 276 | 936 | 1,350 | 1,030 | 290 | 129 | 77 |
| 28 | 102 | 94 | 191 | 709 | 180 | 294 | 838 | 1,240 | 982 | 276 | 134 | 92 |
| 29 | 98 | 94 | 194 | 486 | - | 328 | 715 | 1,060 | 990 | 263 | 153 | 100 |
| 30 | 94 | 109 | 196 | 406 | - | 360 | 679 | 1,010 | 1,010 | 243 | 164 | 100 |
| 31 | 92 | - | 188 | 355 | - | 429 | - | 1,090 | - | 230 | 151 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October | 2,690 | 146 | 66 | 86.8 | 5,340 |
| November | 3,628 | 345 | 78 | 129 | 7,590 |
| December | 10,069 | 2,680 | 98 | 326 | 19,970 |
| Calendar year 1941 | 134,685 | 2,680 | 66 | 369 | 267,200 |
| January | 9,740 | 1,420 | 130 | 314 | 19,320 |
| February | 6,686 | 331 | 180 | 235 | 13,060 |
| March | 10,482 | 500 | 177 | 338 | 20,790 |
| April | 23,619 | 1,100 | 448 | 787 | 46,860 |
| May | 36,511 | 2,550 | 560 | 1,178 | 72,420 |
| June | 48,702 | 2,500 | 982 | 1,623 | 96,600 |
| July | 18,796 | 1,120 | 230 | 606 | 37,280 |
| August | 4,974 | 221 | 123 | 160 | 9,870 |
| September | 3,038 | 124 | 77 | 101 | 6,030 |
| Water year 1941-42 | 179,035 | 2,680 | 66 | 491 | 355,100 |

a No gage-height record; discharge based on records for Carson River near Carson.
 b Stage-discharge relation affected by ice.
 Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
 To convert war time to standard time, subtract 1 hour.

CARSON RIVER BASIN

Carson River near Carson City, Nev.

Location.- Water-stage recorder, lat. 39°06'30", long. 119°42'30", in NW 1/4 sec. 2, T 14 N., R. 20 E., 2 miles downstream from Clear Creek, 2 1/2 miles upstream from bridge on road to Mexican Dam, and 5 miles southeast of Carson City.

Records available.- May 1939 to September 1942.

Extremes.- Maximum discharge during year, 5,300 second-feet Jan. 28 (gage height, 6.58 feet); minimum, 24 second-feet Sept. 8, 1939-42; Maximum discharge, that of Jan. 28, 1942; minimum daily, 4 second-feet (estimated) Aug. 17, 1939.

Remarks.- Records good except those for period of ice effect, which are fair. Many diversions above station for irrigation. Flow slightly regulated by several small reservoirs on tributaries above.

Rating table, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

| | | | | | | | |
|-----|----|-----|-----|-----|-------|-----|-------|
| 0.2 | 24 | 1.3 | 153 | 3.0 | 980 | 5.5 | 3,660 |
| .4 | 35 | 1.6 | 242 | 3.5 | 1,360 | 6.2 | 4,690 |
| .6 | 48 | 1.9 | 354 | 4.0 | 1,650 | | |
| .8 | 65 | 2.2 | 489 | 4.5 | 2,380 | | |
| 1.0 | 90 | 2.6 | 711 | 5.0 | 2,990 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|-------|-------|------|------|-------|-------|-------|-------|------|-------|
| 1 | 42 | 153 | 177 | b200 | 730 | 318 | 514 | 768 | 1,460 | 952 | 56 | 43 |
| 2 | 46 | 161 | 177 | b220 | 665 | 318 | 514 | 711 | 1,630 | 958 | 63 | 44 |
| 3 | 53 | 307 | 885 | b240 | 711 | 338 | 611 | 651 | 1,690 | 960 | 70 | 44 |
| 4 | 48 | 322 | 2,300 | b250 | 651 | 358 | 840 | 645 | 1,590 | 1,020 | 94 | 40 |
| 5 | 43 | 288 | 1,120 | b300 | 622 | 392 | 875 | 622 | 1,830 | 1,030 | 77 | 37 |
| 6 | 51 | 249 | 663 | b350 | 730 | 475 | 868 | 651 | 2,200 | 980 | 61 | 39 |
| 7 | 66 | 226 | 551 | b400 | 833 | 484 | 814 | 794 | 2,430 | 896 | 54 | 35 |
| 8 | 99 | 213 | 475 | b600 | 663 | 475 | 736 | 1,040 | 2,370 | 781 | 52 | 27 |
| 9 | 103 | 204 | 456 | b800 | 551 | 525 | 755 | 1,320 | 2,080 | 724 | 47 | 27 |
| 10 | 83 | 186 | 418 | b600 | 530 | 594 | 847 | 1,420 | 2,150 | 605 | 43 | 39 |
| 11 | 80 | 180 | 414 | b550 | 494 | 617 | 1,000 | 1,240 | 2,280 | 535 | 39 | 47 |
| 12 | 74 | 175 | 375 | b500 | 465 | 628 | 1,070 | 1,120 | 2,290 | 475 | 39 | 46 |
| 13 | 73 | 169 | 350 | b450 | 441 | 562 | 1,230 | 994 | 2,150 | 428 | 44 | 57 |
| 14 | 75 | 164 | 358 | b400 | 446 | 509 | 1,360 | 896 | 2,010 | 371 | 40 | 53 |
| 15 | 77 | 158 | 330 | b350 | 405 | 499 | 1,270 | 889 | 2,030 | 367 | 39 | 64 |
| 16 | 77 | 158 | 396 | b340 | 414 | 499 | 1,040 | 973 | 2,090 | 388 | 41 | 50 |
| 17 | 74 | 169 | 479 | b330 | 410 | 489 | 973 | 945 | 1,920 | 371 | 41 | 46 |
| 18 | 68 | 166 | 410 | b320 | 396 | 504 | 861 | 945 | 1,770 | 322 | 41 | 39 |
| 19 | 70 | 158 | 405 | b310 | 375 | 499 | 787 | 1,040 | 1,710 | 296 | 34 | 40 |
| 20 | 77 | 136 | 396 | 307 | 362 | 465 | 868 | 1,250 | 1,600 | 288 | 30 | 46 |
| 21 | 110 | 146 | 379 | 314 | 358 | 441 | 973 | 1,540 | 1,490 | 239 | 35 | 50 |
| 22 | 189 | 154 | 346 | 310 | 358 | 456 | 1,030 | 1,980 | 1,430 | 229 | 35 | 56 |
| 23 | 180 | 139 | 350 | 318 | 338 | 436 | 1,120 | 2,620 | 1,410 | 213 | 36 | 57 |
| 24 | 166 | 136 | 342 | 432 | 314 | 441 | 1,090 | 2,360 | 1,350 | 189 | 36 | 59 |
| 25 | 151 | 139 | 310 | 1,220 | 326 | 428 | 1,040 | 2,840 | 1,330 | 164 | 36 | 59 |
| 26 | 151 | 148 | b300 | 2,180 | 322 | 410 | 1,110 | 3,390 | 1,200 | 136 | 35 | 60 |
| 27 | 151 | 156 | b310 | 3,480 | 322 | 396 | 1,090 | 2,920 | 1,040 | 121 | 35 | 52 |
| 28 | 153 | 158 | b320 | 4,660 | 318 | 405 | 1,070 | 2,030 | 1,010 | 129 | 38 | 55 |
| 29 | 164 | 161 | b330 | 1,660 | - | 418 | 924 | 1,630 | 1,030 | 112 | 40 | 54 |
| 30 | 161 | 168 | b300 | 987 | - | 441 | 800 | 1,370 | 1,010 | 80 | 41 | 52 |
| 31 | 153 | - | b250 | 827 | - | 475 | - | 1,340 | - | 65 | 37 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October | 3,108 | 189 | 42 | 100 | 6,160 |
| November | 5,425 | 322 | 134 | 181 | 10,760 |
| December | 14,632 | 2,300 | 177 | 472 | 29,020 |
| Calendar year 1941 | 145,643 | 2,390 | 24 | 399 | 288,900 |
| January | 24,195 | 4,650 | 200 | 790 | 47,990 |
| February | 13,548 | 833 | 314 | 484 | 26,870 |
| March | 14,275 | 628 | 318 | 460 | 28,310 |
| April | 28,080 | 1,360 | 514 | 936 | 55,700 |
| May | 43,554 | 3,390 | 622 | 1,405 | 86,390 |
| June | 51,570 | 2,430 | 1,010 | 1,719 | 102,300 |
| July | 14,424 | 1,030 | 65 | 465 | 28,610 |
| August | 1,409 | 94 | 30 | 45.5 | 2,790 |
| September | 1,417 | 64 | 27 | 47.2 | 2,810 |
| Water year 1941-42 | 215,637 | 4,650 | 27 | 591 | 427,700 |

b Stage-discharge relation affected by ice.
 Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
 To convert war time to standard time, subtract 1 hour.

CARSON RIVER BASIN

Carson River near Fort Churchill, Nev.

Location.- Water-stage recorder, lat. 39°17', long. 119°18', in SE¼ sec. 32, T. 17 N., R. 24 E., 2 miles west of Fort Churchill and 6 miles east of Clifton.

Drainage area.- 1,450 square miles.

Records available.- January 1934 to September 1942. April 1911 to December 1933 at site 8 miles upstream.

Average discharge.- 31 years (1911-42), 364 second-feet.

Extremes.- Maximum daily discharge during year, 3,730 second-feet Jan. 29; no flow Oct. 1-7, Aug. 7 to Sept. 30.

1911-42: Maximum discharge observed, 6,150 second-feet Jan. 26, 1914 (gage height, 11.5 feet, site and datum then in use); no flow during some periods in nearly every year since 1923.

Remarks.- Records good. Several diversions above station for irrigation, including diversions for irrigation of 720 acres between present site and the one used prior to Jan. 1, 1934. Practically entire flow is diverted during late irrigation season.

Cooperation.- Records of daily discharge furnished by Truckee-Carson Irrigation District.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|-------|-------|------|------|-------|-------|-------|------|------|-------|
| 1 | 0 | 163 | 166 | 238 | 830 | 356 | 480 | 735 | 1,270 | 934 | 52 | |
| 2 | 0 | 163 | 175 | 210 | 756 | 345 | 510 | 735 | 1,440 | 854 | 52 | |
| 3 | 0 | 179 | 193 | 220 | 722 | 345 | 520 | 694 | 1,590 | 870 | 47 | |
| 4 | 0 | 305 | 762 | 238 | 735 | 360 | 593 | 687 | 1,560 | 866 | 38 | |
| 5 | 0 | 325 | 1,650 | 255 | 666 | 380 | 756 | 653 | 1,520 | 934 | 26 | |
| 6 | 0 | 291 | 845 | 305 | 697 | 410 | 800 | 659 | 1,740 | 934 | 20 | |
| 7 | 0 | 284 | 617 | 355 | 815 | 470 | 808 | 659 | 2,030 | 870 | 0 | |
| 8 | 30 | 230 | 541 | 445 | 830 | 485 | 763 | 793 | 2,210 | 778 | 0 | |
| 9 | 49 | 222 | 490 | 605 | 653 | 480 | 708 | 1,010 | 2,110 | 722 | 0 | |
| 10 | 79 | 210 | 461 | 778 | 587 | 520 | 715 | 1,200 | 1,970 | 653 | 0 | |
| 11 | 81 | 193 | 440 | 673 | 561 | 574 | 763 | 1,200 | 2,050 | 555 | 0 | |
| 12 | 79 | 186 | 425 | 520 | 530 | 605 | 926 | 1,080 | 2,150 | 515 | 0 | |
| 13 | 79 | 186 | 405 | 490 | 510 | 605 | 1,020 | 987 | 2,130 | 470 | 0 | |
| 14 | 79 | 182 | 361 | 455 | 480 | 574 | 1,140 | 894 | 1,990 | 425 | 0 | |
| 15 | 81 | 179 | 335 | 455 | 460 | 540 | 1,240 | 830 | 1,890 | 380 | 0 | |
| 16 | 82 | 172 | 325 | 405 | 455 | 520 | 1,230 | 830 | 1,970 | 355 | 0 | |
| 17 | 84 | 169 | 425 | 405 | 465 | 510 | 1,020 | 894 | 1,940 | 355 | 0 | |
| 18 | 84 | 169 | 450 | 405 | 455 | 490 | 910 | 854 | 1,740 | 345 | 0 | |
| 19 | 82 | 172 | 405 | 405 | 435 | 505 | 808 | 886 | 1,640 | 320 | 0 | |
| 20 | 84 | 169 | 400 | 430 | 420 | 505 | 735 | 983 | 1,590 | 290 | 0 | |
| 21 | 89 | 166 | 389 | 435 | 410 | 475 | 793 | 1,200 | 1,450 | 270 | 0 | |
| 22 | 106 | 160 | 367 | 390 | 405 | 455 | 950 | 1,550 | 1,350 | 234 | 0 | |
| 23 | 154 | 157 | 361 | 395 | 355 | 455 | 1,010 | 1,990 | 1,320 | 218 | 0 | |
| 24 | 166 | 154 | 345 | 415 | 380 | 455 | 1,060 | 2,290 | 1,280 | 196 | 0 | |
| 25 | 166 | 154 | 335 | 618 | 360 | 450 | 1,040 | 2,530 | 1,230 | 179 | 0 | |
| 26 | 163 | 160 | 300 | 1,550 | 370 | 430 | 991 | 2,570 | 1,210 | 167 | 0 | |
| 27 | 163 | 163 | 305 | 2,250 | 370 | 425 | 1,020 | 2,750 | 1,070 | 140 | 0 | |
| 28 | 163 | 163 | 315 | 3,010 | 360 | 425 | 1,020 | 2,490 | 975 | 113 | 0 | |
| 29 | 163 | 160 | 325 | 3,730 | - | 425 | 950 | 1,760 | 967 | 92 | 0 | |
| 30 | 163 | 160 | 330 | 1,810 | - | 430 | 830 | 1,390 | 967 | 82 | 0 | |
| 31 | 163 | - | 295 | 991 | - | 435 | - | 1,300 | - | 76 | 0 | |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October | 2,632 | 166 | 0 | 84.9 | 5,220 |
| November | 5,726 | 325 | 154 | 191 | 11,360 |
| December | 13,508 | 1,650 | 166 | 436 | 26,790 |
| Calendar year 1941 | 133,943 | 2,150 | 0 | 367 | 265,700 |
| January | 23,866 | 3,730 | 210 | 770 | 47,330 |
| February | 15,062 | 830 | 355 | 538 | 29,880 |
| March | 14,438 | 605 | 345 | 466 | 28,640 |
| April | 26,109 | 1,240 | 480 | 870 | 51,790 |
| May | 39,043 | 2,750 | 639 | 1,259 | 77,440 |
| June | 48,349 | 2,210 | 967 | 1,612 | 95,900 |
| July | 14,212 | 934 | 76 | 458 | 28,190 |
| August | 235 | 52 | 0 | 7.6 | 466 |
| September | 0 | 0 | 0 | 0 | 0 |
| Water year 1942 | 203,180 | 3,730 | 0 | 557 | 403,000 |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

CARSON RIVER BASIN

West Fork of Carson River at Woodfords, Calif.

Location.- Water-stage recorder, lat. 38°46'00", long. 119°50'00", in SE¼ sec. 34, T. 11 N., R. 19 E., 0.3 mile downstream from bridge on State Highway No. 8, 0.8 mile west of Woodfords, and 3¼ miles downstream from Willow Creek.

Drainage area.- 68 square miles.

Records available.- October 1900 to May 1907, 1910-11 (fragmentary), and October 1938 to September 1942. April 1890 to March 1892 and June 1907 to September 1920, at site 0.7 mile downstream and below three diversions for irrigation.

Average discharge.- 19 years (1901-3, 1905-15, 1916-20, 1939-42), 138 second-feet.

Extremes.- Maximum discharge during year, 1,210 second-feet May 22 (gage height, 5.80 feet); minimum recorded, 10 second-feet Nov. 19.

1900-20, 1938-42: Maximum discharge, 1,570 second-feet May 9 and 10, 1906 (gage height, 6.8 feet, datum then in use); minimum, (1900-1907, 1938-42) 9 second-feet Dec. 11, 1940.

Maximum discharge known, 3,500 second-feet Dec. 11, 1937, by slope-area method (gage height, 9.00 feet, present datum, from floodmarks).

Remarks.- Records good except those for periods of no gage-height record, which are fair. Flow slightly affected by one small diversion above station for irrigation, also slightly regulated by several small reservoirs of unknown capacities.

Rating table, water year 1940-41, except period of ice effect (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|----|-----|-----|-----|-------|
| 0.8 | 15 | 2.0 | 97 | 4.0 | 465 |
| 1.0 | 22 | 2.2 | 119 | 4.5 | 621 |
| 1.2 | 31 | 2.5 | 157 | 5.0 | 810 |
| 1.4 | 44 | 2.8 | 201 | 5.5 | 1,050 |
| 1.6 | 59 | 3.2 | 271 | 6.0 | 1,350 |
| 1.8 | 77 | 3.6 | 359 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 25 | 32 | 26 | 43 | 99 | 45 | 87 | 201 | 497 | 271 | 97 | 46 |
| 2 | 25 | 100 | 158 | 40 | 91 | 50 | 104 | 200 | 549 | 279 | 93 | 46 |
| 3 | 25 | 90 | 550 | 35 | 95 | 58 | 130 | 252 | 518 | 275 | 59 | 45 |
| 4 | 25 | 65 | 120 | 37 | 89 | 60 | 147 | 306 | 558 | 281 | 56 | 43 |
| 5 | 28 | 50 | 98 | 40 | 85 | 80 | 121 | 355 | 656 | 275 | 54 | 40 |
| 6 | 30 | 45 | 72 | 45 | 77 | 90 | 114 | 418 | 723 | 243 | 53 | 35 |
| 7 | 28 | 40 | 62 | 70 | 75 | 80 | 117 | 535 | 649 | 232 | 52 | 30 |
| 8 | 27 | 37 | 57 | 90 | 70 | 90 | 141 | 621 | 555 | 214 | 46 | 43 |
| 9 | 27 | 35 | 54 | 55 | 65 | 100 | 167 | 624 | 590 | 189 | 48 | 50 |
| 10 | 27 | 32 | 53 | 53 | 64 | 105 | 188 | 500 | 614 | 176 | 45 | 50 |
| 11 | 26 | 30 | 50 | 52 | 62 | 105 | 212 | 400 | 604 | 168 | 60 | 47 |
| 12 | 25 | 30 | 46 | 51 | 62 | 90 | 281 | 342 | 549 | 150 | 81 | 42 |
| 13 | 26 | 28 | 48 | 50 | 60 | 80 | 342 | 324 | 515 | 140 | 90 | 34 |
| 14 | 27 | 27 | 44 | 50 | 60 | 70 | 295 | 326 | 512 | 141 | 89 | 29 |
| 15 | 27 | 27 | 66 | 49 | 60 | 65 | 231 | 350 | 515 | 152 | 93 | 28 |
| 16 | 27 | 28 | 65 | 48 | 58 | 62 | 229 | 302 | 482 | 149 | 78 | 27 |
| 17 | 26 | 28 | 57 | 46 | 56 | 64 | 195 | 324 | 437 | 132 | 45 | 26 |
| 18 | 26 | 24 | 70 | 45 | 56 | 65 | 176 | 389 | 443 | 124 | 40 | 26 |
| 19 | 26 | 21 | 68 | 44 | 54 | 62 | 219 | 494 | 429 | 130 | 38 | 26 |
| 20 | 32 | 23 | 64 | 44 | 54 | 58 | 196 | 642 | 362 | 124 | 43 | 26 |
| 21 | 45 | 22 | 53 | 44 | 54 | 58 | 231 | 755 | 328 | 116 | 49 | 26 |
| 22 | 38 | 22 | 52 | 44 | 52 | 60 | 297 | 965 | 355 | 109 | 42 | 26 |
| 23 | 36 | 22 | 45 | 44 | 50 | 63 | 285 | 747 | 357 | 102 | 34 | 26 |
| 24 | 35 | 23 | 45 | 43 | 50 | 62 | 354 | 824 | 345 | 97 | 38 | 30 |
| 25 | 35 | 24 | 50 | 48 | 49 | 57 | 389 | 990 | 321 | 93 | 38 | 38 |
| 26 | 35 | 23 | 47 | 62 | 48 | 57 | 359 | 628 | 279 | 86 | 56 | 38 |
| 27 | 34 | 24 | 47 | 140 | 47 | 57 | 354 | 494 | 283 | 51 | 70 | 36 |
| 28 | 34 | 24 | 46 | 250 | 46 | 58 | 260 | 445 | 245 | 96 | 75 | 28 |
| 29 | 33 | 26 | 46 | 170 | - | 64 | 226 | 366 | 245 | 95 | 72 | 25 |
| 30 | 32 | 30 | 46 | 125 | - | 70 | 219 | 352 | 258 | 90 | 45 | 25 |
| 31 | 31 | - | 45 | 110 | - | 82 | - | 429 | - | 86 | 45 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 921 | 45 | 25 | 29.7 | 1,830 |
| November | 1,032 | 100 | 21 | 34.4 | 2,050 |
| December | 2,340 | 550 | 26 | 75.5 | 4,640 |
| Calendar year 1941 | 41,302 | 864 | - | 115 | 81,920 |
| January | 2,057 | 250 | 35 | 66.4 | 4,080 |
| February | 1,798 | 99 | 46 | 63.9 | 3,550 |
| March | 2,167 | 105 | 45 | 69.9 | 4,300 |
| April | 6,666 | 389 | 87 | 222 | 13,220 |
| May | 14,871 | 990 | 200 | 480 | 29,500 |
| June | 13,736 | 723 | 245 | 458 | 27,240 |
| July | 4,898 | 281 | 31 | 158 | 9,720 |
| August | 1,327 | 97 | 34 | 58.9 | 3,620 |
| September | 1,037 | 50 | 25 | 34.6 | 2,060 |
| Water year 1941-42 | 53,340 | 990 | 21 | 146 | 105,800 |

Note.- No gage-height record Oct. 1 to Nov. 15, Dec. 30 to Jan. 8, 12-22, 27-31 and Feb. 7 to Mar. 22; discharge computed on basis of records for East Fork of Carson River near Gardnerville, Nev., and weather records.

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

HUMBOLDT RIVER BASIN

Humboldt River at Palisade, Nev.

Location.- Water-stage recorder, lat. 40°37', long. 116°12', in sec. 36, T. 32 N., R. 51 E., a quarter of a mile downstream from Southern Pacific Railroad bridge and three-quarters of a mile upstream from Pine Creek.

Drainage area.- 5,010 square miles.

Records available.- November 1902 to October 1906, July 1911 to September 1942.

Average discharge.- 34 years (1903-6, 1911-42), 337 second-feet.

Extremes.- Maximum discharge during year, 4,100 second-feet Apr. B (gage height, 8.26 feet); minimum, 27 second-feet Sept. 15, 16.

1902-6, 1911-42: Maximum discharge observed, 4,300 second-feet Mar. 5, 1921 (gage height, 8.6 feet, site and datum then in use); minimum, 2 second-feet Aug. 25-28, 1931.

Remarks.- Records good except those for periods of no gage-height record in January and February, which are fair. Water is diverted for irrigation of about 150,000 acres of hay and pasture lands above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|-----|-----|-----|-----|-------|
| 2.0 | 25 | 2.8 | 158 | 5.0 | 1,280 |
| 2.1 | 32 | 3.2 | 277 | 6.0 | 2,050 |
| 2.2 | 44 | 3.6 | 434 | 7.0 | 2,950 |
| 2.4 | 74 | 4.0 | 633 | 8.2 | 4,040 |
| 2.6 | 112 | 4.5 | 933 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|-------|-------|-------|-------|-------|------|-------|
| 1 | 50 | e145 | 204 | 190 | 363 | a240 | 1,610 | 2,000 | 2,800 | 1,310 | 123 | 32 |
| 2 | 52 | e165 | 221 | 165 | 379 | 246 | 1,770 | 2,000 | 2,580 | 1,270 | 116 | 32 |
| 3 | 52 | e195 | 253 | a160 | 421 | 260 | 2,300 | 2,000 | 2,390 | 1,220 | 108 | 31 |
| 4 | 55 | e205 | 295 | a155 | 471 | 284 | 3,130 | 1,910 | 2,240 | 1,140 | 98 | 31 |
| 5 | 65 | e200 | 302 | a150 | 513 | 313 | 3,690 | 1,830 | 2,120 | 1,060 | 92 | 30 |
| 6 | 61 | e220 | 302 | a150 | 490 | 434 | 3,670 | 1,710 | 2,000 | 1,010 | 88 | 29 |
| 7 | 61 | e225 | 324 | a190 | 523 | 466 | 3,760 | 1,590 | 1,990 | 993 | 83 | 29 |
| 8 | 61 | e220 | 321 | a200 | 518 | 452 | 3,990 | 1,460 | 2,080 | 946 | 78 | 29 |
| 9 | 63 | e210 | 309 | 201 | 485 | 533 | 3,440 | 1,360 | 2,220 | 875 | 74 | 28 |
| 10 | 61 | e205 | 302 | 212 | 387 | 807 | 3,060 | 1,310 | 2,230 | 819 | 69 | 28 |
| 11 | 63 | e200 | 309 | 215 | 400 | 1,060 | 3,000 | 1,310 | 2,240 | 765 | 64 | 28 |
| 12 | 68 | e205 | 313 | 215 | 421 | 1,410 | 2,980 | 1,340 | 2,640 | 706 | 60 | 28 |
| 13 | 68 | e195 | 309 | 218 | 371 | 1,560 | 2,900 | 1,390 | 2,790 | 655 | 57 | a28 |
| 14 | 66 | 192 | 306 | 221 | 313 | 1,570 | 2,820 | 1,420 | 2,590 | 606 | 55 | a28 |
| 15 | 68 | 190 | 302 | 218 | 287 | 1,410 | 2,820 | 1,440 | 2,620 | 564 | 51 | a27 |
| 16 | 69 | 192 | 302 | 224 | a260 | 1,500 | 2,780 | 1,520 | 2,480 | 523 | 50 | a27 |
| 17 | 69 | 193 | 306 | 221 | a260 | 1,540 | 2,760 | 1,580 | 2,440 | 490 | 47 | a28 |
| 18 | 71 | 204 | 299 | 216 | a220 | 1,540 | 2,740 | 1,620 | 2,330 | 448 | 43 | a28 |
| 19 | 72 | 206 | 291 | 198 | a220 | 1,540 | 2,690 | 1,610 | 2,220 | 412 | 40 | 28 |
| 20 | 76 | 206 | 291 | 206 | a230 | 1,290 | 2,660 | 1,590 | 2,170 | 387 | 39 | 28 |
| 21 | 79 | 206 | 295 | 201 | a240 | 1,140 | 2,570 | 1,620 | 2,130 | 359 | 36 | 28 |
| 22 | 87 | 190 | 291 | 204 | a230 | 1,070 | 2,360 | 1,580 | 2,030 | 328 | 35 | 29 |
| 23 | e90 | 148 | 234 | 195 | a200 | 1,070 | 2,240 | 1,560 | 1,930 | 291 | 33 | 30 |
| 24 | e95 | 136 | 263 | 201 | a210 | 1,030 | 2,120 | 1,590 | 1,870 | 267 | 32 | 29 |
| 25 | e100 | 146 | 243 | 221 | a220 | 987 | 2,030 | 1,680 | 1,840 | 243 | 31 | 29 |
| 26 | e110 | 158 | 192 | 260 | a210 | 1,050 | 1,970 | 1,830 | 1,780 | 221 | 30 | 29 |
| 27 | e125 | 163 | 187 | 302 | a220 | 1,240 | 1,920 | 1,930 | 1,710 | 204 | 29 | 29 |
| 28 | e135 | 174 | 237 | 363 | a230 | 1,430 | 1,950 | 2,280 | 1,680 | 179 | 30 | 29 |
| 29 | e130 | 181 | 234 | 343 | - | 1,520 | 1,970 | 2,630 | 1,480 | 158 | 31 | 30 |
| 30 | e135 | 187 | 243 | 351 | - | 1,460 | 1,990 | 2,830 | 1,370 | 144 | 32 | 30 |
| 31 | e140 | - | 240 | 355 | - | 1,470 | - | 2,900 | - | 132 | 32 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|-------|---------------------|
| October..... | 2,495 | 140 | 50 | 80.5 | 4,950 |
| November..... | 5,667 | 225 | 136 | 189 | 11,240 |
| December..... | 8,570 | 324 | 187 | 276 | 17,000 |
| Calendar year 1941..... | 147,071 | 2,040 | 30 | 405 | 291,700 |
| January..... | 6,924 | 363 | 150 | 223 | 13,730 |
| February..... | 9,287 | 523 | 210 | 331 | 18,390 |
| March..... | 31,522 | 1,870 | 240 | 1,017 | 62,520 |
| April..... | 79,720 | 3,990 | 1,630 | 2,687 | 158,100 |
| May..... | 54,320 | 2,900 | 1,310 | 1,752 | 107,700 |
| June..... | 64,750 | 2,800 | 1,370 | 2,158 | 128,400 |
| July..... | 18,725 | 1,310 | 132 | 604 | 37,140 |
| August..... | 1,789 | 123 | 29 | 57.7 | 3,550 |
| September..... | 869 | 32 | 27 | 29.0 | 1,720 |
| Water year 1941-42..... | 284,618 | 3,990 | 27 | 780 | 564,400 |

a No gage-height record; discharge, Jan. 4-8, Feb. 16 to Mar. 1, computed on basis of weather records and Sept. 13-18 on basis of recorded range in stage.

e Discharge computed on basis of once daily chain gage reading at former site 1,000 feet upstream.

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

HUMBOLDT RIVER BASIN

South Fork of Humboldt River near Elko, Nev.

Location.- Water-stage recorder, lat. 40°43'15", long. 115°49'50", in NW¼ sec. 30, T. 33 N., R. 55 E., a quarter of a mile upstream from head of canyon, 1.5 miles downstream from highway bridge, 9 miles upstream from mouth, and 10 miles southwest of Elko.

Drainage area.- 1,150 square miles.

Records available.- August 1896 to September 1922, October 1923 to September 1932, October 1936 to September 1942.

Average discharge.- 34 years (1896-1903, 1904-9, 1910-18, 1923-26, 1927-32, 1936-42) 130 second-feet.

Extremes.- Maximum discharge during year, 1,410 second-feet May 27 (gage height, 5.15 feet); minimum daily, 3 second-feet Sept. 8-10.

1896-1922, 1923-32, 1936-42: Maximum discharge, 2,400 second-feet Jan. 26, 1914. from rating curve extended above 1,200 second-feet; practically no flow during some periods in nearly every year since 1915.

Remarks.- Records good except those for periods of ice effect and no gage-height record, which are fair. Flow affected by many diversions above station for irrigation. Station is below all diversions except those of Hunter & Banks Ranch, 3 miles downstream.

Rating table, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|----|-----|-----|-----|-------|
| 1.0 | 5 | 2.2 | 150 | 4.5 | 1,070 |
| 1.2 | 6 | 2.5 | 231 | 5.0 | 1,320 |
| 1.4 | 23 | 3.0 | 401 | 5.3 | 1,500 |
| 1.6 | 42 | 3.5 | 610 | | |
| 1.9 | 87 | 4.0 | 835 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-------|-------|------|------|-------|
| 1 | 24 | 48 | 76 | 45 | 95 | 64 | 472 | 534 | 718 | 417 | 30 | 5 |
| 2 | 25 | 35 | 80 | 40 | 106 | 68 | 512 | 570 | 655 | 432 | 28 | 5 |
| 3 | 26 | 87 | 100 | 35 | 108 | 72 | 574 | 520 | 664 | 448 | 27 | 4 |
| 4 | 26 | 80 | 119 | 35 | 150 | 75 | 844 | 472 | 691 | 480 | 24 | 4 |
| 5 | 27 | 75 | 114 | 35 | 200 | 80 | 566 | 405 | 740 | 484 | 22 | 4 |
| 6 | 27 | 68 | 110 | 35 | 150 | 150 | 799 | 327 | 826 | 504 | 21 | 4 |
| 7 | 27 | 64 | 104 | 42 | 1140 | 180 | 714 | 345 | 970 | 472 | 17 | 4 |
| 8 | 27 | 58 | 96 | 48 | 1130 | 170 | 650 | 331 | 1,160 | 424 | 14 | 3 |
| 9 | 24 | 58 | 87 | 66 | 1120 | 200 | 632 | 341 | 1,160 | 382 | 14 | 3 |
| 10 | 24 | 56 | 91 | 66 | 1120 | 300 | 650 | 563 | 1,140 | 341 | 12 | 3 |
| 11 | 23 | 55 | 89 | 75 | 1120 | 600 | 678 | 390 | 1,180 | 307 | 11 | 4 |
| 12 | 24 | 56 | 87 | 85 | 1100 | 790 | 686 | 460 | 1,130 | 271 | 11 | 4 |
| 13 | 26 | 55 | 85 | 77 | 90 | 691 | 714 | 524 | 1,040 | 243 | 12 | 4 |
| 14 | 28 | 55 | 84 | 66 | 80 | 448 | 736 | 534 | 975 | 222 | 10 | 4 |
| 15 | 28 | 54 | 84 | 66 | 72 | 345 | 754 | 504 | 948 | 214 | 10 | 4 |
| 16 | 27 | 54 | 84 | 78 | 68 | 267 | 722 | 547 | 943 | 214 | 9 | 4 |
| 17 | 26 | 64 | 80 | 70 | 64 | 214 | 709 | 555 | 896 | 197 | 9 | 3 |
| 18 | 27 | 68 | 77 | 58 | 60 | 240 | 745 | 520 | 384 | 173 | 9 | 4 |
| 19 | 27 | 67 | 77 | 52 | 58 | 214 | 668 | 504 | 884 | 165 | 8 | 4 |
| 20 | 28 | 67 | 77 | 51 | 60 | 172 | 592 | 492 | 848 | 148 | 8 | 4 |
| 21 | 34 | 58 | 77 | 48 | 70 | 186 | 578 | 504 | 790 | 136 | 6 | 5 |
| 22 | 45 | 45 | 68 | 55 | 65 | 261 | 596 | 570 | 754 | 121 | 5 | 5 |
| 23 | 47 | 40 | 66 | 78 | 60 | 290 | 614 | 696 | 745 | 110 | 5 | 5 |
| 24 | 43 | 45 | 62 | 72 | 62 | 264 | 583 | 835 | 745 | 96 | 5 | 5 |
| 25 | 47 | 52 | 54 | 70 | 64 | 222 | 534 | 916 | 722 | 87 | 6 | 4 |
| 26 | 56 | 56 | 50 | 80 | 62 | 194 | 492 | 1,100 | 668 | 75 | 5 | 4 |
| 27 | 56 | 60 | 50 | 96 | 60 | 194 | 476 | 1,420 | 588 | 54 | 5 | 4 |
| 28 | 55 | 64 | 54 | 100 | 62 | 199 | 492 | 1,280 | 492 | 45 | 5 | 4 |
| 29 | 55 | 68 | 60 | 123 | - | 222 | 500 | 1,080 | 424 | 39 | 6 | 4 |
| 30 | 52 | 72 | 60 | 119 | - | 271 | 496 | 912 | 401 | 38 | 6 | 4 |
| 31 | 50 | - | 50 | 100 | - | 352 | - | 840 | - | 34 | 6 | 4 |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 1,060 | 56 | 23 | 34.2 | 2,100 |
| November | 1,337 | 87 | 40 | 61.2 | 3,640 |
| December | 2,452 | 119 | 50 | 79.1 | 4,860 |
| Calendar year 1941 | 60,023 | 1,190 | 12 | 164 | 119,000 |
| January | 2,066 | 123 | 35 | 66.6 | 4,100 |
| February | 2,596 | 200 | 58 | 92.7 | 5,150 |
| March | 7,975 | 790 | 64 | 257 | 15,820 |
| April | 19,078 | 866 | 472 | 636 | 37,840 |
| May | 19,381 | 1,420 | 327 | 625 | 35,440 |
| June | 24,753 | 1,160 | 401 | 825 | 46,100 |
| July | 7,358 | 504 | 34 | 237 | 14,590 |
| August | 366 | 30 | 5 | 11.6 | 728 |
| September | 122 | 5 | 3 | 40.7 | 242 |
| Water year 1941-42 | 89,044 | 1,420 | 3 | 244 | 176,600 |

* Winter discharge measurement made on this day.
 a No gage-height record; discharge computed on basis of records for Humboldt River at Palisade and weather records.
 Note.- Stage-discharge relation affected by ice Nov. 22 to Dec. 3, Dec. 23 to Feb. 6.
 Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
 To convert war time to standard time, subtract 1 hour.

HUMBOLDT RIVER BASIN

Martin Creek near Paradise Valley, Nev.

Location.- Water-stage recorder, lat. 41°32'00", long. 117°25'40", in NW¼ sec. 12, T. 42 N., R. 40 E., 0.6 mile upstream from Humboldt County Fish Hatchery and 7 miles northeast of Paradise Valley.

Records available.- October 1921 to September 1942.

Average discharge.- 20 years (1921-26, 1927-42), 25.6 second-feet.

Extremes.- Maximum discharge during year, 400 second-feet Mar. 31 (gage height, 3.90 feet); minimum, 4 second-feet several days in August and September.

1921-42: Maximum discharge, 1,000 second-feet Feb. 21-22, 1927, from rating curve extended above 200 second-feet; minimum, 2 second-feet Sept. 1-9, 1928.

Remarks.- Records good except those above 150 second-feet, which are fair and those for periods of no gage-height record, which are poor. No diversions above gage.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 6 | 9 | 8 | 7 | a12 | 10 | 196 | 72 | 99 | 28 | 6 | 5 |
| 2 | 6 | 11 | 9 | 6 | a13 | 11 | 166 | 71 | 97 | 27 | 6 | 5 |
| 3 | 6 | 10 | 14 | 8 | a14 | 12 | 184 | 63 | 106 | 26 | 6 | 5 |
| 4 | 6 | 10 | 14 | 8 | a16 | 14 | 182 | 66 | 121 | 24 | 6 | 5 |
| 5 | 6 | 10 | 12 | 7 | a18 | 28 | 148 | 62 | 121 | 23 | 5 | 5 |
| 6 | 7 | 10 | 11 | 8 | 19 | 22 | 126 | 62 | 128 | 21 | a5 | 5 |
| 7 | 7 | 9 | 10 | 8 | 16 | 15 | 134 | 70 | 141 | 20 | a5 | 5 |
| 8 | 6 | 9 | 8 | 9 | 14 | 30 | 151 | 80 | 127 | 19 | a5 | 5 |
| 9 | 6 | 9 | 9 | 11 | 14 | 46 | 156 | 87 | 119 | 18 | a5 | 5 |
| 10 | 7 | 9 | 10 | 11 | 10 | 73 | 166 | 91 | 112 | 17 | a5 | 5 |
| 11 | 7 | 9 | 8 | 10 | 13 | 97 | 177 | 92 | 103 | 16 | a5 | 5 |
| 12 | 7 | 9 | 10 | 10 | 10 | 86 | 172 | 94 | 92 | 16 | a5 | 5 |
| 13 | 7 | 9 | 9 | 10 | 8 | 40 | 176 | 94 | 85 | 14 | a5 | 5 |
| 14 | 7 | 9 | 9 | 8 | 8 | 25 | 171 | 88 | 77 | 14 | a5 | 5 |
| 15 | 7 | 9 | 10 | 8 | 11 | 22 | 128 | 98 | 79 | 14 | a5 | 5 |
| 16 | 7 | 9 | 10 | 10 | 11 | 22 | 118 | 114 | 73 | 13 | a5 | 5 |
| 17 | 7 | 10 | 10 | 11 | 10 | 19 | 121 | 101 | 69 | 12 | a5 | 5 |
| 18 | 7 | 8 | 10 | 9 | 7 | 23 | 101 | 100 | 66 | 12 | a5 | 5 |
| 19 | 7 | 8 | 10 | 8 | 7 | 18 | 98 | 104 | 61 | 11 | a5 | 6 |
| 20 | 7 | 7 | 11 | 10 | 11 | 16 | 106 | 117 | 58 | 10 | a5 | 6 |
| 21 | 8 | 7 | 10 | 9 | 12 | 27 | 115 | 138 | 53 | 9 | a5 | 6 |
| 22 | 8 | 6 | 10 | 10 | 12 | 40 | 122 | 166 | 49 | 9 | 5 | 6 |
| 23 | 7 | 5 | 9 | 11 | 8 | 33 | 106 | 196 | 47 | 8 | 5 | 6 |
| 24 | 7 | 7 | 8 | 11 | 10 | 37 | 93 | 184 | 44 | 8 | 5 | 6 |
| 25 | 8 | 7 | 8 | 12 | 11 | 23 | 88 | 180 | 42 | 7 | 5 | 6 |
| 26 | 8 | 7 | 5 | 13 | 9 | 19 | 80 | 166 | 43 | 7 | 5 | 6 |
| 27 | 8 | 7 | 6 | a14 | 10 | 23 | 81 | 145 | 43 | 7 | 5 | 6 |
| 28 | 9 | 8 | 6 | a15 | 10 | 47 | 78 | 131 | 37 | 7 | 5 | 6 |
| 29 | 9 | 8 | 10 | a14 | - | 96 | 74 | 123 | 33 | 7 | 6 | 6 |
| 30 | 8 | 9 | 11 | a13 | - | 153 | 71 | 112 | 30 | 6 | 6 | 6 |
| 31 | 8 | - | 10 | a12 | - | 206 | - | 105 | - | 6 | 6 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 221 | 9 | 6 | 7.1 | 458 |
| November | 255 | 11 | 5 | 8.5 | 506 |
| December | 295 | 14 | 5 | 9.5 | 585 |
| Calendar year 1941 | 12,193 | 269 | 5 | 33.4 | 24,190 |
| January | 311 | 15 | 6 | 10.0 | 617 |
| February | 324 | 19 | 7 | 11.6 | 643 |
| March | 1,333 | 206 | 10 | 43.0 | 2,640 |
| April | 3,862 | 186 | 71 | 129 | 7,650 |
| May | 3,370 | 186 | 62 | 109 | 6,680 |
| June | 2,355 | 141 | 30 | 78.5 | 4,670 |
| July | 436 | 28 | 6 | 14.1 | 855 |
| August | 162 | 6 | 5 | 5.2 | 321 |
| September | 162 | 6 | 5 | 5.4 | 321 |
| Water year 1941-42 | 13,086 | 206 | 5 | 35.9 | 25,950 |

a No gage-height record; discharge interpolated or computed on basis of weather records.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
To convert war time to standard time, subtract 1 hour.

PYRAMID AND WINNEMUCCA LAKES BASIN

Pyramid Lake near Nixon, Nev.

Location.- Bench mark N 21 of U. S. Coast and Geodetic Survey, lat. 39°50'30", long. 119°23'00", in SD 1524 sec. 24, T. 23 N., R. 22 E., at southwest corner of concrete bridge No. 296 B, 150 feet southwest of milepost 297, 11.5 miles south, along Southern Pacific Railroad, from station at Sutcliffe and 6 miles west of Nixon. Elevation of bench mark is 3,940.04 feet above mean sea level, datum of 1929.
Records available.- 1867 to 1925 (occasional elevations in some years). June 1926 to September 1942. Elevations prior to January 1934 referred to adjustment of 1912, datum of which is 0.57 foot above that of datum of 1929.
Extremes.- 1926-42: Maximum elevation observed, 3,847.35 feet, datum of 1929, June 1928; minimum observed, 3,815.10 feet Dec. 9, 1941.
Remarks.- Elevations determined by spirit leveling.
Cooperation.- Records furnished by U. S. Indian Service.

Elevation, in feet, above mean sea level, water year 1941-42

| | | | | | |
|---------|----------|---------|----------|----------|----------|
| Oct. 15 | 3,815.23 | Feb. 20 | 3,815.94 | June 22 | 3,817.84 |
| Nov. 14 | 3,815.19 | Mar. 17 | 3,816.25 | July 15 | 3,816.35 |
| Dec. 9 | 3,815.10 | Apr. 18 | 3,816.85 | Aug. 5 | 3,818.08 |
| Jan. 27 | 3,815.25 | May 18 | 3,817.37 | Sept. 14 | 3,817.33 |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Lake Tahoe at Tahoe, Calif.

Location.- Staff gage, lat. 39°09'55", long. 120°08'25", in NW 1/4 sec. 7, T. 15 N., R. 17 E., at Tahoe, near outlet of lake. Datum of gage is 6,218.01 feet above mean sea level, datum of 1929, or 6,220.0 feet above mean sea level, datum of Bureau of Reclamation.
Drainage area.- 519 square miles (including water surface of lake, which is 193 square miles).
Records available.- 1900 to September 1942.
Extremes.- Maximum gage height during year, 9.01 feet July 14, 15; minimum, 6.65 feet Nov. 29.
 1900-1942: Maximum stage, 11.26 feet July 14, 15, 17, 18, 1907; minimum, 1.74 feet Dec. 26, 1934.
Remarks.- Lake levels maintained by concrete regulator dam with 17 gates; storage began about 1874. Capacity, 1,028,000 acre-feet between elevations 6,222.01 feet (natural rim of lake at outlet) and 6,230.27 feet (highest stage recorded, July 14, 15, 17, 18, 1907) above mean sea level, datum of 1929. Increase in capacity in the range indicated, about 125,000 acre-feet per foot of rise. Sill of outlet gates is 6,218.01 feet above mean sea level, datum of 1929. Water is used for irrigation in State of Nevada and for power development. Gage read once daily.
Cooperation.- Records furnished by H. C. Dukes, Federal Court Water Master.

Gage height, in feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1 | 7.25 | 6.84 | 6.66 | 7.30 | 7.93 | 7.90 | 7.85 | 8.32 | 8.70 | 8.92 | 8.87 | 8.32 |
| 2 | 7.23 | 6.86 | 6.69 | 7.30 | 7.95 | 7.88 | 7.85 | 8.31 | 8.72 | 8.95 | 8.85 | 8.31 |
| 3 | 7.19 | 6.85 | 6.85 | 7.30 | 8.01 | 7.87 | 7.86 | 8.30 | 8.72 | 8.94 | 8.84 | 8.29 |
| 4 | 7.16 | 6.84 | 6.96 | 7.29 | 8.03 | 7.86 | 7.94 | 8.28 | 8.74 | 8.95 | 8.83 | 8.28 |
| 5 | 7.15 | 6.84 | 6.98 | 7.29 | 8.08 | 7.86 | 7.96 | 8.26 | 8.76 | 8.96 | 8.82 | 8.26 |
| 6 | 7.14 | 6.84 | 6.99 | 7.28 | 8.17 | 7.87 | 7.97 | 8.27 | 8.77 | 8.97 | 8.80 | 8.24 |
| 7 | 7.12 | 6.84 | 7.00 | 7.28 | 8.29 | 7.86 | 7.97 | 8.28 | 8.79 | 8.98 | 8.79 | 8.21 |
| 8 | 7.10 | 6.84 | 6.99 | 7.29 | 8.30 | 7.85 | 7.97 | 8.29 | 8.82 | 8.99 | 8.78 | 8.18 |
| 9 | 7.08 | 6.84 | 6.99 | 7.32 | 8.29 | 7.84 | 7.98 | 8.30 | 8.83 | 9.00 | 8.77 | 8.16 |
| 10 | 7.07 | 6.83 | 7.00 | 7.32 | 8.28 | 7.84 | 8.01 | 8.29 | 8.84 | 9.00 | 8.75 | 8.14 |
| 11 | 7.05 | 6.83 | 6.99 | 7.32 | 8.26 | 7.87 | 8.05 | 8.32 | 8.86 | 9.00 | 8.74 | 8.12 |
| 12 | 7.03 | 6.82 | 6.98 | 7.33 | 8.24 | 7.88 | 8.08 | 8.34 | 8.83 | 9.00 | 8.73 | 8.10 |
| 13 | 7.04 | 6.81 | 6.97 | 7.33 | 8.21 | 7.88 | 8.07 | 8.36 | 8.91 | 9.00 | 8.72 | 8.08 |
| 14 | 7.01 | 6.80 | 6.98 | 7.33 | 8.17 | 7.91 | 8.15 | 8.37 | 8.93 | 9.01 | 8.71 | 8.07 |
| 15 | 6.99 | 6.79 | 7.01 | 7.33 | 8.15 | 7.92 | 8.15 | 8.39 | 8.94 | 9.01 | 8.70 | 8.06 |
| 16 | 6.98 | 6.80 | 7.03 | 7.32 | 8.14 | 7.91 | 8.16 | 8.40 | 8.94 | 9.00 | 8.69 | 8.05 |
| 17 | 6.98 | 6.80 | 7.07 | 7.32 | 8.12 | 7.91 | 8.18 | 8.40 | 8.95 | 8.99 | 8.68 | 8.04 |
| 18 | 6.97 | 6.78 | 7.07 | 7.32 | 8.10 | 7.90 | 8.19 | 8.40 | 8.95 | 8.98 | 8.66 | 8.01 |
| 19 | 6.96 | 6.76 | 7.08 | 7.31 | 8.08 | 7.88 | 8.21 | 8.41 | 8.94 | 8.99 | 8.65 | 7.97 |
| 20 | 6.95 | 6.75 | 7.09 | 7.31 | 8.06 | 7.87 | 8.22 | 8.41 | 8.94 | 8.99 | 8.63 | 7.94 |
| 21 | 6.97 | 6.72 | 7.08 | 7.31 | 8.04 | 7.87 | 8.23 | 8.43 | 8.95 | 8.99 | 8.61 | 7.93 |
| 22 | 6.98 | 6.71 | 7.07 | 7.32 | 8.03 | 7.87 | 8.25 | 8.45 | 8.96 | 8.99 | 8.60 | 7.91 |
| 23 | 6.95 | 6.70 | 7.10 | 7.35 | 8.02 | 7.88 | 8.26 | 8.48 | 8.96 | 8.99 | 8.59 | 7.90 |
| 24 | 6.93 | 6.69 | 7.11 | 7.41 | 8.00 | 7.88 | 8.26 | 8.51 | 8.96 | 8.98 | 8.59 | 7.89 |
| 25 | 6.92 | 6.68 | 7.12 | 7.57 | 7.97 | 7.87 | 8.26 | 8.55 | 8.96 | 8.98 | 8.54 | 7.87 |
| 26 | 6.92 | 6.68 | 7.13 | 7.67 | 7.95 | 7.85 | 8.26 | 8.64 | 8.94 | 8.98 | 8.51 | 7.86 |
| 27 | 6.92 | 6.67 | 7.14 | 7.80 | 7.93 | 7.84 | 8.26 | 8.65 | 8.93 | 8.97 | 8.47 | 7.85 |
| 28 | 6.91 | 6.66 | 7.21 | 7.87 | 7.91 | 7.84 | 8.28 | 8.65 | 8.91 | 8.96 | 8.43 | 7.83 |
| 29 | 6.89 | 6.65 | 7.25 | 7.89 | - | 7.84 | 8.29 | 8.67 | 8.90 | 8.95 | 8.39 | 7.81 |
| 30 | 6.87 | 6.67 | 7.28 | 7.90 | - | 7.84 | 8.30 | 8.68 | 8.91 | 8.95 | 8.36 | 7.80 |
| 31 | 6.86 | - | 7.30 | 7.93 | - | 7.85 | - | 8.69 | - | 8.90 | 8.34 | - |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

PYRAMID AND WINNEMUCCA LAKES BASIN

Truckee River at Tahoe, Calif.

Location.- Water-stage recorder, lat. 39°09'55", long. 123°08'45", in NW 1/4 sec. 7, T. 15 N., R. 17 E., at Tahoe, just below dam at outlet of Lake Tahoe. Datum of gage is 6,219.01 feet above mean sea level, datum of 1929.

Drainage area.- 519 square miles.

Records available.- July 1895 to February 1896, June 1900 to September 1942.

Average discharge.- 42 years (1900-1942) 242 second-feet.

Extremes.- Maximum daily discharge during year, 1,413 second-feet, (regulated), June 25, 26; no flow for parts of several months. 1895-96, 1900-42: Maximum daily discharge, that of June 25, 26, 1942; no flow during parts of 1900, 1901, 1914, 1918-42.

Remarks.- Flow regulated by operation of gates at dam at Lake Tahoe and occasionally by pumping from Lake.

Cooperation.- Record for daily discharge furnished by H. C. Dukes, Federal Court Water Master.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|-------|------|------|-----|-------|------|------|-------|
| 1 | 379 | 354 | 354 | | 0 | 422 | 101 | 685 | 589 | 601 | 422 | 452 |
| 2 | 355 | 354 | 342 | | 0 | 422 | 101 | 685 | 589 | 500 | 429 | 452 |
| 3 | 344 | 354 | 117 | | 0 | 422 | 101 | 685 | 930 | 317 | 433 | 452 |
| 4 | 344 | 354 | 221 | | 0 | 344 | 101 | 685 | 930 | 134 | 440 | 452 |
| 5 | 344 | 354 | 258 | | 0 | 252 | 101 | 685 | 930 | 134 | 444 | 452 |
| 6 | | | | | | | | | | | | |
| 7 | 344 | 345 | 176 | | 0 | 252 | 101 | 685 | 930 | 134 | 449 | 452 |
| 8 | 344 | 351 | 195 | | 196 | 252 | 101 | 685 | 960 | 134 | 455 | 452 |
| 9 | 276 | 351 | 222 | | 570 | 252 | 101 | 685 | 649 | 134 | 455 | 452 |
| 10 | 251 | 351 | 239 | | 923 | 236 | 101 | 685 | 649 | 134 | 455 | 452 |
| | | | | | 1,071 | 205 | 101 | 685 | 649 | 134 | 455 | 452 |
| 11 | 257 | 331 | 239 | | 1,071 | 205 | 101 | 685 | 528 | 134 | 455 | 452 |
| 12 | 257 | 331 | 251 | | 1,071 | 205 | 101 | 685 | 930 | 134 | 451 | 452 |
| 13 | 257 | 331 | 78 | | 1,071 | 205 | 101 | 685 | 1,124 | 134 | 441 | 452 |
| 14 | 265 | 199 | 0 | | 1,071 | 205 | 101 | 685 | 1,359 | 150 | 439 | 452 |
| 15 | 274 | 13 | 0 | | 1,071 | 205 | 101 | 685 | 1,374 | 204 | 430 | 452 |
| | | | | | | | | | | | | |
| 16 | 274 | 15 | 0 | | 1,071 | 205 | 101 | 685 | 1,254 | 230 | 430 | 452 |
| 17 | 274 | 13 | 0 | | 1,071 | 205 | 101 | 685 | 1,318 | 230 | 430 | 452 |
| 18 | 274 | 13 | 0 | | 1,071 | 205 | 101 | 685 | 1,276 | 226 | 430 | 452 |
| 19 | 274 | 13 | 0 | | 1,071 | 205 | 101 | 685 | 1,322 | 199 | 433 | 452 |
| 20 | 321 | 13 | 0 | | 1,071 | 205 | 101 | 685 | 1,348 | 205 | 441 | 452 |
| | | | | | | | | | | | | |
| 21 | 354 | 13 | 0 | | 1,071 | 205 | 101 | 685 | 1,348 | 230 | 441 | 452 |
| 22 | 354 | 13 | 0 | | 1,071 | 205 | 101 | 685 | 1,350 | 249 | 444 | 452 |
| 23 | 354 | 13 | 0 | | 1,071 | 205 | 101 | 685 | 1,358 | 266 | 452 | 452 |
| 24 | 354 | 13 | 0 | | 1,007 | 205 | 287 | 685 | 1,381 | 306 | 452 | 452 |
| 25 | 354 | 13 | 0 | | 864 | 205 | 599 | 554 | 1,413 | 319 | 452 | 452 |
| | | | | | | | | | | | | |
| 26 | 354 | 13 | 0 | | 630 | 205 | 599 | 272 | 1,413 | 329 | 452 | 452 |
| 27 | 354 | 78 | 0 | | 422 | 205 | 599 | 599 | 1,404 | 348 | 452 | 452 |
| 28 | 354 | 354 | 0 | | 422 | 142 | 599 | 599 | 1,402 | 373 | 452 | 452 |
| 29 | 354 | 354 | 0 | | - | 101 | 577 | 599 | 1,058 | 357 | 452 | 452 |
| 30 | 354 | 354 | 0 | | - | 101 | 685 | 599 | 703 | 419 | 452 | 451 |
| 31 | 354 | - | 0 | | - | 101 | - | 599 | - | 422 | 452 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|-------|---------------------|
| October..... | 9,945 | 379 | 251 | 321 | 19,730 |
| November..... | 5,927 | 354 | 13 | 198 | 11,780 |
| December..... | 2,931 | 354 | 0 | 94.5 | 5,810 |
| Calendar year 1941..... | 50,542 | 452 | 0 | 138 | 100,300 |
| January..... | 0 | 0 | 0 | 0 | 0 |
| February..... | 20,028 | 1,071 | 0 | 715 | 39,720 |
| March..... | 6,959 | 422 | 101 | 225 | 13,360 |
| April..... | 2,243 | 685 | 101 | 208 | 12,300 |
| May..... | 20,261 | 685 | 272 | 654 | 40,190 |
| June..... | 32,465 | 1,413 | 528 | 1,082 | 64,390 |
| July..... | 7,849 | 601 | 134 | 253 | 15,570 |
| August..... | 13,770 | 455 | 422 | 444 | 27,310 |
| September..... | 13,539 | 452 | 431 | 451 | 26,860 |
| Water year 1941-42..... | 139,952 | 1,413 | 0 | 363 | 277,600 |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Truckee River at Farad, Calif.

Location.- Water-stage recorder, lat. 39°26', long. 120°02', in NE¼ sec. 12, T. 18 N., R. 17 E., 0.5 mile downstream from Farad power plant, 3 miles downstream from Bronco Creek, and ¾ miles north of Iceland. Altitude of gage, about 5,200 feet (from topographic map).

Drainage area.- 940 square miles.

Records available.- January 1938 to September 1942. September 1899 to August 1912 at Nevada-California State line, 5 miles downstream. August 1912 to December 1937 at Iceland, ¾ miles upstream.

Average discharge.- 30 years (1912-42), 661 second-feet.

Extremes.- Maximum discharge during year, 3,425 second-feet June 6 (gage height, 5.50 feet); minimum, 367 second-feet Nov. 22, 1938-42; Maximum daily discharge, 6,770 second-feet May 15, 1938; minimum daily, 290 second-feet Nov. 16, 1939.

Remarks.- Storage above station in Lakes Tahoe, Donner, Independence, and Weber.

Cooperation.- Record of daily discharge furnished by H. C. Dukes, Federal Court Water Master.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|-------|-------|-------|------|-------|-------|-------|-------|------|-------|
| 1 | 454 | 432 | 445 | 457 | 658 | 686 | 906 | 1,966 | 2,259 | 1,280 | 499 | 500 |
| 2 | 452 | 526 | 949 | 476 | 630 | 690 | 996 | 1,853 | 2,424 | 1,416 | 499 | 501 |
| 3 | 403 | 537 | 1,526 | 553 | 594 | 695 | 1,339 | 1,901 | 2,750 | 1,354 | 508 | 507 |
| 4 | 401 | 498 | 863 | 553 | 568 | 652 | 1,694 | 1,920 | 2,888 | 1,105 | 516 | 506 |
| 5 | 401 | 462 | 626 | 568 | 568 | 524 | 1,254 | 1,938 | 3,137 | 1,009 | 524 | 506 |
| 6 | 403 | 448 | 454 | 581 | 623 | 547 | 1,432 | 2,042 | 3,246 | 900 | 526 | 505 |
| 7 | 400 | 420 | 398 | 556 | 586 | 533 | 1,810 | 2,168 | 3,052 | 831 | 533 | 507 |
| 8 | 401 | 418 | 412 | 731 | 863 | 554 | 2,004 | 2,310 | 2,706 | 762 | 531 | 506 |
| 9 | 450 | 416 | 420 | 682 | 1,315 | 593 | 2,168 | 2,310 | 2,807 | 690 | 528 | 512 |
| 10 | 401 | 412 | 413 | 626 | 1,567 | 571 | 2,362 | 2,168 | 2,630 | 710 | 526 | 512 |
| 11 | 402 | 410 | 401 | 577 | 1,550 | 597 | 2,351 | 2,071 | 2,563 | 657 | 526 | 512 |
| 12 | 407 | 410 | 401 | 573 | 1,559 | 681 | 2,509 | 2,052 | 2,706 | 620 | 528 | 507 |
| 13 | 412 | 406 | 410 | 568 | 1,542 | 638 | 2,740 | 2,154 | 2,728 | 588 | 522 | 505 |
| 14 | 405 | 406 | 410 | 531 | 1,517 | 615 | 2,876 | 2,139 | 2,970 | 545 | 514 | 502 |
| 15 | 413 | 398 | 590 | 493 | 1,508 | 617 | 2,445 | 2,189 | 3,124 | 554 | 506 | 501 |
| 16 | 412 | 464 | 1,207 | 506 | 1,501 | 595 | 2,305 | 1,966 | 2,785 | 580 | 502 | 501 |
| 17 | 413 | 458 | 1,035 | 510 | 1,501 | 597 | 2,188 | 1,947 | 2,773 | 575 | 493 | 501 |
| 18 | 410 | 418 | 891 | 526 | 1,521 | 613 | 2,013 | 1,966 | 3,017 | 562 | 493 | 501 |
| 19 | 408 | 398 | 741 | 543 | 1,517 | 584 | 1,994 | 1,938 | 2,900 | 524 | 495 | 500 |
| 20 | 420 | 398 | 726 | 543 | 1,513 | 595 | 2,023 | 2,013 | 2,819 | 514 | 495 | 504 |
| 21 | 454 | 415 | 635 | 539 | 1,505 | 597 | 1,805 | 2,269 | 2,750 | 516 | 493 | 504 |
| 22 | 441 | 418 | 808 | 553 | 1,509 | 666 | 2,042 | 2,445 | 2,684 | 522 | 495 | 504 |
| 23 | 425 | 422 | 577 | 553 | 1,501 | 686 | 2,013 | 2,299 | 2,651 | 533 | 499 | 502 |
| 24 | 423 | 443 | 537 | 594 | 1,493 | 683 | 1,901 | 2,413 | 2,617 | 516 | 504 | 502 |
| 25 | 420 | 443 | 531 | 857 | 1,315 | 657 | 2,351 | 3,029 | 2,563 | 580 | 500 | 504 |
| 26 | 420 | 439 | 496 | 1,173 | 1,132 | 643 | 2,289 | 2,228 | 2,563 | 510 | 500 | 502 |
| 27 | 425 | 446 | 464 | 1,550 | 814 | 654 | 2,288 | 1,957 | 2,413 | 503 | 504 | 500 |
| 28 | 425 | 432 | 401 | 1,228 | 765 | 666 | 2,033 | 1,985 | 2,340 | 510 | 504 | 502 |
| 29 | 426 | 422 | 510 | 946 | - | 624 | 1,885 | 2,090 | 2,218 | 512 | 508 | 497 |
| 30 | 422 | 432 | 491 | 786 | - | 686 | 1,994 | 2,178 | 1,649 | 528 | 507 | 499 |
| 31 | 423 | - | 470 | 711 | - | 610 | - | 2,159 | - | 520 | 504 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|-------|---------------------|
| October..... | 12,941 | 454 | 400 | 417 | 25,870 |
| November..... | 13,039 | 537 | 398 | 435 | 25,860 |
| December..... | 19,108 | 1,526 | 398 | 616 | 37,900 |
| Calendar year 1941..... | 246,834 | 2,273 | 398 | 676 | 489,500 |
| January..... | 20,543 | 1,550 | 457 | 663 | 40,750 |
| February..... | 33,235 | 1,567 | 568 | 1,187 | 65,920 |
| March..... | 19,549 | 810 | 524 | 631 | 38,770 |
| April..... | 60,137 | 2,876 | 905 | 2,005 | 119,300 |
| May..... | 66,053 | 3,029 | 1,883 | 2,131 | 131,000 |
| June..... | 80,942 | 3,246 | 1,649 | 2,698 | 160,500 |
| July..... | 21,525 | 1,416 | 503 | 694 | 42,690 |
| August..... | 15,780 | 533 | 493 | 509 | 31,300 |
| September..... | 15,110 | 512 | 497 | 504 | 29,970 |
| Water year 1941-42..... | 377,972 | 3,246 | 398 | 1,036 | 749,800 |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

WARNER LAKES BASIN

Twentymile Creek near Adel, Oreg.

Location.- Water-stage recorder, lat. 42°04', long. 119°57', in SW¹/₄ sec. 36, T. 40 S., R. 23 E., a quarter of a mile downstream from Twelvemile Creek and 10 miles southwest of Adel.

Records available.- September 1940 to September 1942. March 1910 to July 1916, December 1917 to September 1919, March 1921 to June 1922, at site 1 1/2 miles downstream, in sec. 24.

Extremes.- Maximum discharge during year, 1,460 second-foot Jan. 27 (gauge height, 3.24 feet), from rating curve extended above 500 second-feet; minimum, 0.9 second-foot Aug. 19, 23, 24 (gauge height, 0.43 foot).
1910-16, 1917-19, 1921-22, 1940-42: Maximum discharge observed, 2,610 second-foot Mar. 1, 1910 (discharge measurement by Warner Lake Irrigation Co. engineer); minimum, that of Aug. 19, 23, 24, 1942.

Remarks.- Records good except those for periods of ice effect and period of no gauge-height record, which are poor. Many diversions above station for irrigation; no regulation.

Rating tables, water year 1941-42, except periods of ice effect (gauge height, in feet, and discharge, in second-feet)

| Oct. 1 to Jan. 27 | | | | | Jan. 28 to Sept. 30 | | | | | | |
|-------------------|-----|-----|-----|-----|---------------------|-----|-----|-----|-----|-----|-----|
| 0.6 | 3.4 | 1.2 | 69 | 2.0 | 323 | 0.5 | 2.5 | 1.0 | 45 | 1.5 | 255 |
| .7 | 5.0 | 1.4 | 104 | 2.2 | 455 | .6 | 6.0 | 1.2 | 79 | 2.0 | 325 |
| .8 | 15 | 1.6 | 150 | 2.4 | 615 | .7 | 12 | 1.4 | 119 | 2.3 | 530 |
| 1.0 | 38 | 1.8 | 220 | 2.7 | 895 | .8 | 20 | 1.6 | 170 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|-------|------|-----|------|------|------|-------|
| 1 | 3.1 | 4.8 | 5.2 | b6.4 | 51 | b8.7 | 349 | 102 | 98 | a26 | 2.5 | 1.6 |
| 2 | 3.1 | 6.2 | 7.1 | b6.2 | 77 | b8.5 | 331 | 96 | 115 | a24 | 2.5 | 1.6 |
| 3 | 3.4 | 5.7 | 14 | b6.4 | 77 | 9.0 | 373 | 88 | 136 | a22 | 2.5 | 1.6 |
| 4 | 3.4 | 5.7 | 8.0 | b6.6 | 45 | 9.0 | 558 | 102 | 129 | a21 | 2.3 | 1.6 |
| 5 | 3.4 | 5.2 | 8.0 | b6.8 | 29 | 41 | 305 | 104 | 133 | a20 | 2.3 | 1.4 |
| 6 | 3.4 | 4.8 | 7.1 | b7.6 | 32 | 29 | 295 | 70 | 136 | a19 | 2.0 | 1.4 |
| 7 | 3.4 | 4.8 | 6.2 | b10 | 58 | a29 | 265 | 94 | 126 | a17 | 2.0 | 1.4 |
| 8 | 3.4 | 4.3 | 4.8 | b14 | 42 | a35 | 275 | 96 | 121 | a16 | 1.8 | 1.4 |
| 9 | 3.4 | 4.3 | 6.2 | b26 | 32 | a50 | 235 | 75 | 121 | a15 | 1.8 | 1.8 |
| 10 | 3.4 | 4.3 | 5.7 | 37 | 32 | a150 | 197 | 98 | 115 | a14 | 1.6 | 2.5 |
| 11 | 3.4 | 4.8 | 3.9 | 26 | 32 | a370 | 173 | 102 | 104 | a13 | 1.6 | 2.3 |
| 12 | 3.9 | 4.8 | 5.2 | 19 | 24 | a350 | 170 | 162 | 94 | a12 | 1.6 | 2.3 |
| 13 | 3.9 | 4.8 | 6.2 | 14 | 21 | a150 | 131 | 204 | 87 | 11 | 1.6 | 2.3 |
| 14 | 3.4 | 4.8 | 6.2 | 14 | 21 | a90 | 96 | 136 | 86 | 10 | 1.6 | 2.3 |
| 15 | 3.4 | 4.8 | 12 | 12 | 16 | a76 | 55 | 98 | 58 | 7.2 | 1.6 | 2.5 |
| 16 | 3.4 | 5.7 | 31 | 9.4 | *15 | a72 | 72 | 117 | 81 | 6.6 | 1.6 | 2.3 |
| 17 | 3.9 | 5.2 | 18 | 10 | 13 | a78 | 83 | 87 | 70 | 6.6 | 1.6 | 2.3 |
| 18 | 3.9 | 5.2 | 33 | 8.7 | 10 | a82 | 65 | 81 | 68 | 6.0 | 1.6 | 2.5 |
| 19 | 4.3 | 4.8 | *100 | 8.7 | 11 | a72 | 74 | 87 | 63 | 5.6 | 1.4 | 2.5 |
| 20 | 6.6 | 3.9 | 46 | 8.7 | 12 | a74 | 66 | 104 | 56 | 5.3 | 1.4 | 2.5 |
| 21 | 5.7 | b5.5 | 19 | 8.0 | 9.0 | a110 | 70 | 126 | 50 | 5.0 | 1.4 | 2.5 |
| 22 | 5.2 | b5.3 | 13 | 7.5 | 14 | a140 | 87 | 151 | 48 | 4.6 | 1.4 | 2.5 |
| 23 | 4.8 | b5.5 | 11 | b7.7 | 11 | *a135 | 83 | 154 | 45 | 4.2 | 1.1 | 2.5 |
| 24 | 4.3 | b5.7 | b9.4 | 8.7 | 9.6 | 124 | 79 | 154 | 45 | 3.6 | 1.1 | 2.5 |
| 25 | 4.3 | b5.9 | b8.2 | 12 | b9.0 | 74 | 65 | 162 | 51 | 3.2 | 1.4 | 2.5 |
| 26 | 4.3 | b4.1 | b7.6 | 102 | b8.6 | 48 | 58 | 131 | 51 | 2.8 | 1.4 | 2.5 |
| 27 | 5.2 | b4.2 | b7.0 | 875 | b8.5 | 55 | 77 | 119 | 51 | 2.8 | 1.8 | 2.5 |
| 28 | 6.2 | 4.3 | 6.6 | 320 | b8.6 | 131 | 66 | 146 | 45 | 2.8 | 2.0 | 2.5 |
| 29 | 5.7 | 4.3 | 12 | 214 | - | 232 | 77 | 138 | a35 | 2.5 | 2.5 | 2.5 |
| 30 | 5.7 | 4.3 | 10 | 121 | - | 295 | 143 | 113 | a28 | 2.8 | 2.0 | 2.5 |
| 31 | 4.8 | - | b8.0 | 77 | - | 361 | - | 98 | - | 2.8 | 1.8 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 129.7 | 6.6 | 3.1 | 4.18 | 257 |
| November | 138.0 | 6.2 | 3.3 | 4.60 | 274 |
| December | 444.6 | 100 | 3.9 | 14.3 | 882 |
| Calendar year 1941 | 17,094.6 | 714 | 2.0 | 46.8 | 33,910 |
| January | 2,010.4 | 875 | 6.2 | 64.9 | 3,990 |
| February | 751.3 | 77 | 3.5 | 26.1 | 1,450 |
| March | 3,498.5 | 370 | 8.7 | 113 | 6,940 |
| April | 4,981 | 538 | 58 | 166 | 9,880 |
| May | 3,596 | 204 | 70 | 116 | 7,130 |
| June | 2,475 | 136 | 28 | 82.5 | 4,910 |
| July | 314.4 | 26 | 2.5 | 10.1 | 624 |
| August | 54.8 | 2.5 | 1.1 | 1.77 | 109 |
| September | 64.9 | 2.5 | 1.4 | 2.16 | 129 |
| Water year 1941-42 | 18,437.6 | 875 | 1.1 | 50.5 | 36,560 |

* Winter discharge measurement made on this day.
a No gauge-height record; discharge computed on basis of records for Deep Creek near Adel.
b Stage-discharge relation affected by ice.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
To convert war time to standard time, subtract 1 hour.

WARNER LAKES BASIN

111

Deep Creek above Adel, Oreg.

Location.- Water-stage recorder, lat. 42°11', long. 119°59', in E½ sec. 15, T. 39 S., R. 25 E., a third of a mile downstream from Drake Creek and 5 miles west of Adel. Datum of gage is 4,965 feet above mean sea level (river-profile survey).

Drainage area.- 249 square miles.

Records available.- September 1922 to September 1923 and October 1932 to September 1942, in reports of Geological Survey. September 1922 to September 1923 and October 1929 to September 1936, in reports of State Engineer.

Average discharge.- 14 years (1922-23, 1929-42), 91.4 second-feet.

Extremes.- Maximum discharge during year, 944 second-feet Apr. 11 (gage height, 4.09 feet); minimum, 9.0 second-feet Aug. 23-25 (gage height, 0.42 foot).
1922-23, 1932-42: Maximum discharge, 5,030 second-feet Dec. 11, 1937 (gage height, 7.5 feet, from floodmark), from rating curve extended above 1,200 second-feet on basis of velocity-area studies; minimum, 1.7 second-feet July 20, 27-29, 1934.

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

Rating table, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 15)

| | | | | | |
|-----|------|-----|-----|-----|-----|
| 0.3 | 5.5 | 1.6 | 115 | 3.4 | 595 |
| .5 | 12.0 | 2.0 | 190 | 3.8 | 790 |
| .7 | 22 | 2.4 | 284 | 4.1 | 950 |
| 1.0 | 43 | 2.8 | 389 | | |
| 1.3 | 73 | 3.0 | 448 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 14 | 24 | 62 | 30 | 101 | 45 | 501 | 349 | 417 | 118 | 15 | 11 |
| 2 | 14 | 34 | 66 | 29 | 155 | 48 | 490 | 336 | 426 | 110 | 15 | 11 |
| 3 | 14 | 33 | 130 | 30 | 140 | 48 | 551 | 323 | 515 | 100 | 14 | 12 |
| 4 | 14 | 40 | 78 | 31 | 92 | 50 | 613 | 357 | 501 | 85 | 13 | 13 |
| 5 | 14 | 35 | 79 | 32 | 81 | 54 | 527 | 310 | 497 | 78 | 13 | 12 |
| 6 | 14 | 30 | 70 | 36 | 94 | 58 | 527 | 297 | 490 | 74 | 12 | 12 |
| 7 | 14 | 26 | 54 | 46 | 95 | 58 | 583 | 310 | 490 | 65 | 12 | 12 |
| 8 | 14 | 25 | 53 | 69 | 75 | 91 | 608 | 339 | 474 | 59 | 12 | 12 |
| 9 | 14 | 23 | 50 | 102 | 65 | 115 | 580 | 362 | 454 | 56 | 11 | 13 |
| 10 | 14 | 23 | 37 | 100 | 57 | 252 | 740 | 395 | 442 | 52 | 11 | 18 |
| 11 | 14 | 22 | 35 | 80 | 52 | 370 | 860 | 395 | 409 | 48 | 11 | 16 |
| 12 | 15 | 21 | 39 | 66 | *46 | 344 | 815 | 426 | 378 | 43 | 11 | 14 |
| 13 | 15 | 21 | 35 | 59 | 46 | 198 | 735 | 454 | 354 | 40 | 11 | 14 |
| 14 | 15 | 21 | 37 | 50 | 46 | 132 | 655 | 370 | 341 | 37 | 11 | 13 |
| 15 | 15 | 25 | 71 | 46 | 43 | 112 | 585 | 364 | 341 | 34 | 11 | 13 |
| 16 | 15 | 37 | 184 | 42 | 42 | 106 | 508 | 445 | 328 | 32 | 11 | 12 |
| 17 | 15 | 32 | 81 | 39 | 38 | 120 | 442 | 384 | 302 | 32 | 11 | 12 |
| 18 | 14 | 24 | 57 | 36 | 39 | 130 | 378 | 336 | 276 | 32 | 10 | 12 |
| 19 | 15 | 20 | 289 | 35 | 40 | 107 | 373 | 339 | 254 | 32 | 9.8 | 13 |
| 20 | 18 | 18 | 328 | 34 | 50 | 110 | 409 | 370 | 232 | 29 | 9.8 | 13 |
| 21 | 19 | 17 | 149 | *34 | 46 | 161 | 467 | 432 | 213 | 27 | 10 | 13 |
| 22 | 18 | *16 | 116 | 35 | 53 | 200 | 660 | 487 | 194 | 25 | 10 | 13 |
| 23 | 17 | 17 | 89 | 38 | 60 | 196 | 490 | 555 | 182 | 23 | 9.8 | 13 |
| 24 | 17 | 19 | 77 | 42 | 52 | 177 | 436 | 579 | 125 | 21 | 9.4 | 12 |
| 25 | 17 | 21 | 60 | 51 | 44 | 132 | 389 | 604 | 220 | 20 | 9.4 | 12 |
| 26 | 16 | 23 | 52 | 155 | 41 | 110 | 341 | 720 | 300 | 20 | 10 | 12 |
| 27 | 20 | 24 | 46 | 464 | 41 | 132 | 369 | 567 | 299 | 18 | 11 | 12 |
| 28 | 28 | 26 | 50 | 276 | 42 | 205 | 369 | 695 | 207 | 17 | 12 | 11 |
| 29 | 29 | 26 | 60 | 182 | - | 313 | 354 | 675 | 163 | 16 | 14 | 11 |
| 30 | 25 | 37 | 58 | 143 | - | 414 | 406 | 508 | 132 | 16 | 13 | 11 |
| 31 | 22 | - | 39 | 110 | - | 498 | - | 458 | - | 16 | 12 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 519 | 29 | 14 | 16.7 | 1,030 |
| November..... | 759 | 40 | 16 | 25.3 | 1,510 |
| December..... | 2,631 | 328 | 35 | 84.9 | 5,220 |
| Calendar year 1941..... | 37,980.9 | 543 | 8.7 | 104 | 75,320 |
| January..... | 2,521 | 464 | 29 | 81.3 | 5,000 |
| February..... | 1,773 | 155 | 38 | 63.3 | 3,520 |
| March..... | 5,071 | 498 | 43 | 164 | 10,060 |
| April..... | 15,869 | 860 | 341 | 529 | 31,480 |
| May..... | 13,551 | 720 | 297 | 437 | 26,880 |
| June..... | 9,936 | 515 | 132 | 333 | 19,510 |
| July..... | 1,375 | 118 | 16 | 44.3 | 2,720 |
| August..... | 355.2 | 15 | 9.4 | 17.5 | 705 |
| September..... | 378 | 18 | 11 | 12.6 | 750 |
| Water year 1941-42..... | 54,786.2 | 860 | 9.4 | 150 | 105,700 |

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 18-24, Dec. 25 to Jan. 24, Feb. 7-20, Feb. 25 to Mar. 2.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
To convert war time to standard time, subtract 1 hour.

ABERT LAKE BASIN

Chewaucan River above Conn ditch, near Paisley, Oreg.

Location.- Water-stage recorder, lat. 42°41', long. 120°35', in SW¼ sec. 27, T. 33 S., R. 18 E., at bridge 20 feet downstream from power plant of Paisley Electric Co., 700 feet upstream from diversion dam of Conn ditch, a quarter of a mile downstream from Mill Creek, and 2½ miles west of Paisley. Datum of gage is 4,504.9 feet above mean sea level (river-profile survey).

Drainage area.- 275 square miles.

Records available.- April to September 1921, May 1924 to September 1942. January 1905 to December 1907 and January 1909 to April 1912, at site 2 miles downstream, below Conn ditch. November 1912 to September 1921, at site half a mile upstream, above Mill Creek.

Records of yearly runoff at these sites practically equivalent.

Average discharge.- 32 years (1905-7, 1909-21, 1924-42), 130 second-feet.

Extremes.- Maximum discharge during year, 762 second-feet May 26 (gage height, 3.86 feet); minimum, 4.5 second-feet (regulated) Nov. 25 (gage height, 1.08 feet); minimum daily discharge, 30 second-feet Oct. 1, Sept. 24-30.

1905-07, 1909-21, 1924-42: Maximum discharge, 4,000 second-feet Nov. 23, 1909 (gage height, 9.40 feet, site and datum then in use), from rating curve extended above 900 second-feet; no flow part of Dec. 7, 1927, Dec. 12, 1932 (frozen); minimum daily discharge not determined.

Remarks.- Records good except those for periods of ice effect, which are poor. Low-water flow partly regulated by power plant above station. About 160 acres is irrigated above station.

Rating tables, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 22 to Sept. 17)

Oct. 1 to Dec. 27

Dec. 28 to Sept. 30

| | | | | | | | | | |
|-----|----|-----|-----|-----|----|-----|-----|-----|-----|
| 1.8 | 44 | 2.4 | 133 | 1.8 | 44 | 2.4 | 133 | 3.2 | 400 |
| 2.0 | 67 | 2.6 | 182 | 2.0 | 67 | 2.6 | 182 | 3.5 | 540 |
| 2.2 | 95 | 3.1 | 360 | 2.2 | 95 | 2.9 | 279 | 3.8 | 720 |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 30 | 46 | 68 | 49 | 109 | 71 | 207 | 545 | 450 | 129 | 48 | 35 |
| 2 | 32 | 52 | 106 | 48 | 135 | 84 | 220 | 317 | 486 | 123 | 48 | 36 |
| 3 | 31 | 47 | 322 | 49 | 119 | 83 | 250 | 317 | 476 | 117 | 46 | 40 |
| 4 | 33 | 60 | 164 | 50 | 104 | 89 | 287 | 321 | 460 | 109 | 45 | 37 |
| 5 | 33 | 54 | 133 | 51 | 82 | 133 | 283 | 290 | 445 | 102 | 46 | 33 |
| 6 | 33 | 46 | 117 | 55 | 121 | 140 | 283 | 290 | 454 | 94 | 44 | 32 |
| 7 | 33 | 43 | 90 | 65 | 119 | 119 | 309 | 309 | 450 | 89 | 43 | 32 |
| 8 | 33 | 41 | 84 | 86 | 90 | 188 | 337 | 341 | 436 | a86 | 42 | 32 |
| 9 | 33 | 41 | 84 | 150 | 78 | 204 | 396 | 374 | 414 | a84 | 41 | 35 |
| 10 | 32 | 40 | 83 | 140 | 70 | 204 | 486 | 374 | 391 | a82 | 40 | 46 |
| 11 | 31 | 39 | 61 | 102 | 65 | 213 | 584 | 383 | 370 | a80 | 39 | 40 |
| 12 | 33 | 37 | 85 | 83 | 61 | 182 | 595 | 391 | 345 | a78 | 39 | 37 |
| 13 | 41 | 37 | 86 | 75 | 61 | 151 | 619 | 356 | 325 | a75 | 39 | 34 |
| 14 | 36 | 80 | 84 | 68 | *61 | 113 | 637 | 357 | 309 | 74 | 39 | 34 |
| 15 | 36 | 113 | 133 | 64 | 58 | 111 | 556 | 357 | 306 | 72 | 38 | 34 |
| 16 | 34 | 99 | 247 | 61 | 57 | 131 | 530 | 396 | 294 | 74 | 37 | 32 |
| 17 | 33 | 67 | 164 | 58 | 52 | 129 | 481 | 361 | 272 | 76 | 37 | 32 |
| 18 | 33 | 62 | 138 | 55 | 56 | 129 | 427 | 345 | 254 | 74 | 39 | 32 |
| 19 | 33 | 43 | 347 | 54 | 62 | 111 | 440 | 361 | 235 | 70 | 38 | 33 |
| 20 | 42 | 38 | 295 | 53 | 76 | 109 | 481 | 391 | 220 | 68 | 36 | 32 |
| 21 | 40 | 35 | 154 | 53 | 82 | 129 | 520 | 463 | 202 | 65 | 36 | 31 |
| 22 | 37 | 34 | 161 | 54 | 72 | 151 | 595 | 535 | 182 | 61 | 37 | 31 |
| 23 | 34 | 36 | 159 | 57 | 70 | 135 | 550 | 590 | 177 | 59 | 36 | 31 |
| 24 | 33 | *39 | 113 | 61 | 74 | 131 | 520 | 601 | 166 | 57 | 34 | 30 |
| 25 | 32 | 42 | 86 | 80 | 65 | 113 | 476 | 662 | 185 | 54 | 33 | 30 |
| 26 | 32 | 45 | 74 | 188 | 57 | 102 | 435 | 688 | 233 | 54 | 35 | 30 |
| 27 | 42 | 48 | 66 | 283 | 60 | 115 | 454 | 601 | 207 | 52 | 39 | 30 |
| 28 | 47 | 54 | 70 | 174 | 65 | 127 | 432 | 637 | 164 | 51 | 40 | 30 |
| 29 | 42 | 55 | 82 | 111 | - | 142 | 374 | 568 | 149 | 50 | 42 | 30 |
| 30 | 40 | 63 | 79 | 94 | - | 159 | 378 | 505 | 138 | 48 | 40 | 30 |
| 31 | 40 | - | 57 | 113 | - | 190 | - | 481 | - | 48 | 38 | 30 |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 1,094 | 47 | 30 | 35.3 | 2,170 |
| November..... | 1,526 | 113 | 34 | 50.9 | 3,030 |
| December..... | 3,990 | 347 | 57 | 129 | 7,910 |
| Calendar year 1941..... | 39,579 | 564 | 22 | 108 | 78,500 |
| January..... | 2,684 | 283 | 48 | 86.6 | 5,320 |
| February..... | 2,181 | 135 | 52 | 77.9 | 4,330 |
| March..... | 4,188 | 213 | 71 | 135 | 8,310 |
| April..... | 13,123 | 637 | 207 | 437 | 26,030 |
| May..... | 13,317 | 688 | 290 | 430 | 26,410 |
| June..... | 9,188 | 486 | 139 | 308 | 18,220 |
| July..... | 2,356 | 129 | 48 | 76.0 | 4,670 |
| August..... | 1,233 | 48 | 33 | 39.8 | 2,450 |
| September..... | 1,001 | 46 | 30 | 33.4 | 1,990 |
| Water year 1941-42..... | 55,879 | 688 | 30 | 153 | 110,800 |

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Deep Creek above Adel.

Note.- Stage-discharge relation affected by ice Nov. 18-25, Dec. 25, Dec. 28 to Jan. 25, Feb. 9-18, 27.

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Silver Creek near Silver Lake, Oreg.

Location.- Water-stage recorder, lat. 43°07', long. 121°04', in SW $\frac{1}{4}$ sec. 28, T. 28 S., R. 14 E., $\frac{1}{2}$ miles downstream from diversion dam of Silver Lake Irrigation District, $\frac{1}{2}$ miles southwest of Silver Lake post office, and 3 miles upstream from Bridge Creek. Datum of gage is 4,361.28 feet above mean sea level, datum of 1929.

Drainage area.- 221 square miles.

Records available.- December 1904 to March 1907, January 1909 to September 1942.

Average discharge.- 31 years (1905-6, 1909-27, 1929-41), including Silver Lake Irrigation District Canal, 25.2 second-feet.

Extremes.- Maximum discharge during year, 54 second-feet Apr. 15 (gage height, 2.51 feet); minimum, not determined (probably occurred during period of ice effect); minimum daily, 1.8 second-feet Jan. 1-2.

1904-7, 1909-42: Maximum discharge, 1,800 second-feet Mar. 20, 1907 (gage height, 9.08 feet, datum then in use), from rating curve extended above 700 second-feet; no flow at times in 1931, 1932, 1934, 1937.

Remarks.- Records good except those for periods of ice effect, which are poor. Flow regulated by reservoir (capacity, 800 acre-feet) above diversion dam $\frac{1}{2}$ miles upstream and by Thompson Valley Reservoir (capacity, 17,400 acre-feet) 11 miles upstream, both of which are owned by the Silver Lake Irrigation District. No record of diversion above station by Silver Lake Irrigation District Canal was obtained during year except miscellaneous discharge measurements. (See p. 119.)

Rating table, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 3. and Apr. 17 to Sept. 15)

| | | | |
|-----|------|-----|----|
| 1.7 | 3.4 | 2.2 | 29 |
| 1.8 | 6.7 | 2.4 | 45 |
| 1.9 | 11.2 | 2.6 | 62 |
| 2.0 | 16.5 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 3.0 | 2.4 | 2.6 | 1.8 | 11 | 4.4 | 19 | 20 | 31 | 40 | 15 | 9.0 |
| 2 | 3.0 | 2.4 | 2.8 | 1.8 | 9.8 | 4.4 | 21 | 19 | 26 | 40 | 9.8 | 9.0 |
| 3 | 3.0 | 2.4 | 2.8 | 2.0 | 7.6 | 4.4 | 22 | 18 | 22 | 41 | 16 | 9.0 |
| 4 | 3.0 | a2.6 | 2.8 | 2.0 | 8.0 | 4.4 | 22 | 18 | 22 | 46 | 16 | 9.0 |
| 5 | 3.0 | a2.6 | 2.6 | 2.0 | 7.8 | 4.1 | 24 | 17 | 22 | 46 | 12 | 9.0 |
| 6 | 2.8 | a2.4 | 2.6 | 2.2 | 7.6 | 4.1 | 24 | 22 | 21 | 47 | 11 | 9.0 |
| 7 | 2.8 | a2.4 | 2.6 | 2.4 | 7.6 | 4.1 | 24 | 22 | 26 | 47 | 9.8 | 9.0 |
| 8 | 2.8 | a2.4 | 2.6 | 2.6 | 7.6 | 4.1 | 26 | 28 | 31 | 47 | 7.2 | 9.0 |
| 9 | 2.8 | a2.4 | 2.6 | 3.0 | 7.6 | 4.7 | 31 | 32 | 31 | 47 | 6.4 | 9.0 |
| 10 | 2.8 | a2.4 | 2.6 | 2.8 | 7.2 | 5.4 | 33 | 35 | 31 | 47 | 5.7 | 9.0 |
| 11 | 2.8 | a2.1 | 2.6 | 2.8 | 7.2 | 6.7 | 36 | 36 | 33 | 45 | 7.2 | 9.0 |
| 12 | 2.4 | a2.1 | 2.6 | 2.6 | 7.2 | 9.0 | 37 | 37 | 36 | 45 | 6.4 | 9.0 |
| 13 | 2.4 | a2.1 | 2.6 | 2.4 | 7.2 | 9.8 | 37 | 37 | 36 | 46 | 5.4 | 9.0 |
| 14 | 2.4 | a2.6 | 2.8 | 2.2 | *7.2 | 9.8 | 45 | 38 | 36 | 45 | 4.7 | 9.0 |
| 15 | 2.4 | a3.0 | 2.8 | 2.2 | 6.4 | 9.4 | 49 | 38 | 37 | 42 | 4.1 | 9.0 |
| 16 | a2.5 | a2.8 | 3.4 | 2.0 | 6.4 | 9.0 | 47 | 38 | 38 | 43 | 3.7 | 9.4 |
| 17 | 2.6 | 2.8 | 3.0 | 2.0 | 6.0 | 9.8 | 47 | 38 | 38 | 45 | 6.0 | 9.4 |
| 18 | 2.6 | 2.8 | 3.2 | 3.0 | 6.0 | 12 | 41 | 38 | 38 | 45 | 6.7 | 9.4 |
| 19 | 2.6 | 2.8 | 3.7 | 2.0 | 6.0 | 11 | 24 | 38 | 38 | 44 | 7.2 | 9.4 |
| 20 | 2.6 | 2.8 | 3.7 | 1.8 | 5.7 | *10 | 24 | 38 | 38 | 28 | 7.6 | 9.4 |
| 21 | 2.6 | 2.8 | 4.1 | 1.8 | 5.4 | 11 | 24 | 38 | 38 | 26 | 8.0 | 9.4 |
| 22 | 2.6 | 2.6 | 4.1 | 1.8 | 5.7 | 11 | 24 | 38 | 38 | 26 | 8.0 | 9.4 |
| 23 | 2.6 | 2.6 | 4.1 | *2.0 | 5.4 | 12 | 26 | 39 | 38 | 26 | 8.0 | 9.4 |
| 24 | 2.6 | 2.6 | 3.8 | 2.2 | 5.4 | 13 | 26 | 39 | 38 | 26 | 8.0 | 9.4 |
| 25 | 2.6 | 2.6 | 3.8 | 3.0 | 5.0 | 13 | 25 | 40 | 38 | 26 | 8.0 | 9.4 |
| 26 | 2.6 | 2.6 | 3.5 | 5.0 | 5.0 | 12 | 24 | 40 | 38 | 20 | 8.0 | 9.4 |
| 27 | 2.6 | 2.6 | 3.0 | 8.0 | 4.7 | 12 | 23 | 43 | 38 | 17 | 8.0 | 9.0 |
| 28 | 2.6 | 2.6 | 3.0 | 11 | 4.7 | 12 | 22 | 41 | 38 | 16 | 8.5 | 9.0 |
| 29 | 2.4 | 2.6 | 3.2 | 12 | - | 13 | 21 | 39 | 39 | 16 | 8.5 | 9.0 |
| 30 | 2.4 | 2.6 | 3.2 | 11 | - | 14 | 20 | 39 | 39 | 16 | 8.5 | 9.0 |
| 31 | 2.4 | - | 2.6 | 11 | - | 16 | - | 37 | - | 16 | 8.5 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 82.3 | 3.0 | 2.4 | 2.65 | 163 |
| November | 76.5 | 3.0 | 2.1 | 2.55 | 152 |
| December | 95.4 | 4.1 | 2.6 | 3.08 | 189 |
| Calendar year 1941 | 4,575.8 | 45 | 2.1 | 12.5 | 9,080 |
| January | 113.4 | 12 | 1.8 | 3.66 | 225 |
| February | 168.4 | 11 | 4.7 | 6.73 | 374 |
| March | 279.6 | 16 | 4.1 | 9.02 | 555 |
| April | 864 | 49 | 19 | 28.8 | 1,710 |
| May | 1,040 | 43 | 17 | 33.5 | 2,060 |
| June | 1,013 | 39 | 21 | 33.8 | 2,010 |
| July | 1,106 | 47 | 16 | 35.7 | 2,190 |
| August | 257.9 | 16 | 3.7 | 8.32 | 612 |
| September | 274.4 | 9.4 | 9.0 | 9.15 | 544 |
| Water year 1941-42 | 5,390.9 | 49 | 1.8 | 14.8 | 10,680 |

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed on basis of weather records and records for Deep Creek above Adel and Chewaucan River near Paisley.

Note.- Stage-discharge relation affected by ice Dec. 24 to Jan. 27, Feb. 5.

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Silvies River near Burns, Oreg.

Location.- Water-stage recorder, lat. 43°43', long. 119°11', in NW¼ sec. 31, T.21 S., R. 30 E., 1 mile downstream from dam site for proposed lower Silvies Reservoir and 11 miles northwest of Burns.

Drainage area.- 934 square miles.

Records available.- May 1903 to July 1906, December 1908 to September 1942.

Average discharge.- 29 years (1903-5, 1909-12, 1917-21, 1922-42), 138 second-feet.

Extremes.- Maximum discharge during year, 2,060 second-feet Apr. 13 (gage height, 12.97 feet); minimum, 8 second-feet Sept. 11.

1903-6, 1908-42: Maximum discharge, 4,730 second-feet Apr. 15, 1904 (gage height, 17.12 feet, site and datum then in use); no flow July 19 to Sept. 22, 1934.

Remarks.- Records good except those for periods of ice effect, which are poor. Small areas on Silvies River above station are irrigated with flood waters.

Rating table, water year 1941-42, except Oct. 1 and period of ice effect (gage height, in feet, and discharge, in second-feet)

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|------|-------|------|-------|
| 0.9 | 7.5 | 1.5 | 57 | 4.0 | 253 | 8.0 | 683 | 12.0 | 1,450 |
| 1.0 | 11 | 2.2 | 87 | 5.0 | 353 | 9.0 | 826 | 12.5 | 1,690 |
| 1.2 | 20 | 2.6 | 121 | 6.0 | 456 | 10.0 | 1,000 | 13.0 | 2,090 |
| 1.5 | 37 | 3.0 | 157 | 7.0 | 565 | 11.0 | 1,200 | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|-------|-----|------|------|------|-------|
| 1 | 27 | 45 | 51 | | | 45 | 966 | 788 | 553 | 134 | 22 | 13 |
| 2 | 29 | 51 | 56 | | | 47 | 1,040 | 768 | 518 | 111 | 20 | 13 |
| 3 | 29 | 54 | 65 | | | 50 | 1,220 | 710 | 499 | 91 | 18 | 12 |
| 4 | 29 | 54 | 73 | | | 52 | 1,380 | 671 | 469 | 85 | 18 | 11 |
| 5 | 29 | 54 | 83 | | | 52 | 1,430 | 633 | 386 | 79 | 19 | 11 |
| 6 | 30 | 54 | 89 | | | 56 | 1,680 | 594 | 359 | 71 | 20 | 11 |
| 7 | 33 | 54 | 71 | | | 60 | 1,650 | 572 | 321 | 65 | 20 | 10 |
| 8 | 33 | 54 | 54 | | | 70 | 1,630 | 561 | 291 | 58 | 18 | 9 |
| 9 | 35 | 52 | 73 | | | 90 | 1,760 | 517 | 272 | 53 | 17 | 9 |
| 10 | 36 | 49 | 65 | | | 120 | 1,790 | 522 | 254 | 49 | 16 | 9 |
| 11 | 36 | 48 | 60 | | | 170 | 1,810 | 533 | 243 | 48 | 16 | 8 |
| 12 | 36 | 48 | 56 | | (*) | 315 | 1,890 | 530 | 229 | 46 | 15 | 11 |
| 13 | 36 | 46 | 57 | | | 386 | 1,940 | 508 | 214 | 46 | 14 | 11 |
| 14 | 35 | 47 | 65 | | | 327 | 1,940 | 470 | 187 | 46 | 13 | 12 |
| 15 | 35 | 54 | 66 | | | 280 | 1,880 | 466 | 167 | 46 | 13 | 12 |
| 16 | 35 | 64 | 69 | | | 271 | 1,680 | 499 | 170 | 45 | 13 | 12 |
| 17 | 35 | 68 | 78 | | | 253 | 1,610 | 523 | 160 | 47 | 13 | 13 |
| 18 | 33 | 71 | 85 | | | 249 | 1,440 | 535 | 143 | 55 | 12 | 13 |
| 19 | 33 | 71 | 98 | | | 236 | 1,300 | 503 | 142 | 51 | 11 | 13 |
| 20 | 35 | 59 | 115 | | | 217 | 1,240 | 463 | 126 | 50 | 10 | 14 |
| 21 | 35 | 60 | 118 | | | 235 | 1,210 | 428 | 123 | 44 | 10 | 15 |
| 22 | 35 | 60 | 113 | | | 293 | 1,170 | 416 | 117 | 40 | 10 | 15 |
| 23 | 35 | 52 | 120 | | | 325 | 1,130 | 423 | 111 | 37 | 10 | 18 |
| 24 | 41 | 51 | 100 | | | 301 | 1,050 | 453 | 106 | 29 | 10 | 18 |
| 25 | 41 | 51 | 86 | | | 262 | 987 | 460 | 93 | 29 | 10 | 16 |
| 26 | 59 | 48 | 89 | | | 190 | 938 | 503 | 95 | 29 | 9 | 16 |
| 27 | 36 | 44 | 81 | | | 182 | 868 | 530 | 96 | 26 | 10 | 15 |
| 28 | 39 | 44 | *67 | | | 214 | 853 | 545 | 93 | 25 | 11 | 14 |
| 29 | 40 | 47 | 85 | | | 295 | 829 | 564 | 85 | 24 | 12 | 14 |
| 30 | 41 | 48 | 72 | | | 350 | 776 | 539 | 117 | 24 | 13 | 14 |
| 31 | 42 | - | 60 | | | 758 | - | 540 | - | 23 | 13 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October | 1,083 | 42 | 27 | 34.9 | 2,150 |
| November | 1,602 | 71 | 44 | 55.4 | 3,180 |
| December | 2,454 | 120 | 51 | 79.2 | 4,870 |
| Calendar year 1941 | 81,086 | 1,270 | 15 | 222 | 160,800 |
| January | 2,015 | - | - | 65 | 4,000 |
| February | 1,680 | - | - | 60 | 3,330 |
| March | 6,750 | 758 | 45 | 218 | 13,390 |
| April | 41,017 | 1,940 | 776 | 1,367 | 81,360 |
| May | 16,747 | 788 | 416 | 540 | 33,220 |
| June | 6,739 | 553 | 85 | 225 | 13,370 |
| July | 1,606 | 134 | 23 | 51.8 | 3,190 |
| August | 436 | 22 | 9 | 14.1 | 865 |
| September | 392 | 18 | 8 | 12.7 | 758 |
| Water year 1941-42 | 82,511 | 1,940 | 8 | 226 | 163,700 |

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 28 to Mar. 11

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Donner and Blitzen River near Frenchglen, Oreg.

Location.- Water-stage recorder and concrete control, lat. 42°47', long. 118°52', in NW $\frac{1}{4}$ sec. 20, T. 32 S., R. 32 E., $\frac{1}{2}$ miles upstream from upper diversions for Malheur Migratory Waterfowl Refuge, 2 miles downstream from Fish Creek, and $3\frac{1}{2}$ miles southeast of Frenchglen.

Drainage area.- 180 square miles.

Records available.- December 1937 to September 1942. January 1909 to November 1910, fragmentary records at sites downstream, below several irrigation diversions. May 1910 to September 1921 at site $\frac{1}{2}$ miles downstream, in SW $\frac{1}{4}$ sec. 8, above diversions, published as Donner and Blitzen River near Diamond. July 1929 to September 1930, in reports of State engineer.

Average discharge.- 12 years (1911-13, 1914-16, 1917-21, 1938-42), 128 second-feet.

Extremes.- Maximum discharge during year, 2,870 second-feet May 5 (gage height, about 5.85 feet, inlet pipe closed 3 hours), from rating curve extended above 600 second-feet by velocity-area studies and logarithmic plotting; minimum, 14 second-feet Dec. 27 (gage height, 1.75 feet).

1909-21, 1937-42: Maximum discharge, that of May 5, 1942; minimum, 8 second-feet Jan. 14, 1940, caused by ice jams upstream.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. No diversion or regulation above station.

Cooperation.- Records collected in cooperation with U. S. Fish and Wildlife Service.

Rating table, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

| | | | | | |
|-----|----|-----|-----|-----|-------|
| 1.7 | 11 | 2.7 | 120 | 4.0 | 740 |
| 1.9 | 21 | 3.0 | 205 | 4.5 | 1,170 |
| 2.1 | 35 | 3.3 | 325 | 5.0 | 1,730 |
| 2.4 | 67 | 3.6 | 485 | 5.0 | 3,080 |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-------|------|------|------|-------|
| 1 | 40 | 59 | a55 | 23 | a80 | 50 | a620 | 345 | 419 | 272 | 61 | 50 |
| 2 | 40 | 86 | a60 | b25 | a180 | 54 | 587 | 272 | 328 | 272 | 60 | 48 |
| 3 | 40 | 66 | a65 | a27 | a150 | 51 | 463 | 256 | 677 | 248 | 59 | 47 |
| 4 | 41 | 112 | a60 | b25 | a120 | 54 | 575 | 350 | 569 | 248 | 59 | 47 |
| 5 | 45 | 82 | a55 | b25 | a100 | 86 | 370 | 1,010 | 612 | 245 | 57 | 47 |
| 6 | 44 | 79 | a50 | b30 | a150 | 74 | 345 | 588 | 691 | 208 | 56 | 47 |
| 7 | 44 | 70 | 44 | b90 | 125 | 67 | 345 | 414 | 657 | 187 | 55 | 46 |
| 8 | 42 | *67 | a43 | b150 | 100 | 96 | 360 | 446 | 612 | 178 | 55 | 46 |
| 9 | 42 | 68 | a42 | 158 | 87 | 128 | 370 | 424 | 569 | 167 | 54 | 47 |
| 10 | 41 | 65 | a41 | 114 | *79 | a500 | 365 | 463 | 545 | 145 | 55 | 56 |
| 11 | 42 | 61 | 40 | 100 | 79 | a400 | 419 | 397 | 463 | 142 | 52 | 53 |
| 12 | 42 | 60 | a45 | 86 | 72 | a350 | 452 | 316 | 392 | 120 | 52 | 51 |
| 13 | 41 | 59 | 53 | 84 | 54 | a250 | 485 | 294 | 414 | 114 | 52 | 50 |
| 14 | 40 | 60 | a60 | 65 | 47 | 125 | 463 | 272 | 419 | 104 | 52 | 48 |
| 15 | 41 | 70 | a65 | 41 | a50 | 104 | 365 | 330 | 485 | 104 | 51 | 47 |
| 16 | 41 | 66 | a60 | a60 | a47 | 98 | 375 | 375 | 397 | 102 | 50 | 47 |
| 17 | 40 | 81 | a75 | 70 | a45 | 89 | 355 | 275 | 375 | 98 | 50 | 47 |
| 18 | 40 | 59 | a50 | 61 | 44 | 98 | 307 | 264 | 365 | 93 | 50 | 48 |
| 19 | 42 | 57 | a75 | 41 | 39 | 80 | 325 | 276 | 289 | 86 | 48 | 48 |
| 20 | 52 | b45 | a75 | b40 | a40 | 70 | 370 | 335 | 268 | 82 | 48 | 48 |
| 21 | 48 | b43 | 60 | a40 | b45 | 99 | 386 | 491 | 264 | 79 | 48 | 47 |
| 22 | 46 | b42 | 57 | a45 | b50 | 145 | 419 | 644 | 272 | 78 | 48 | 47 |
| 23 | 44 | b40 | 59 | b70 | b52 | 120 | 320 | 732 | 239 | 74 | 47 | 47 |
| 24 | 44 | a45 | 54 | 62 | 54 | 125 | 259 | 700 | 272 | 72 | 47 | 47 |
| 25 | 46 | a48 | b45 | 96 | 52 | 54 | 260 | 747 | 296 | 70 | 48 | 46 |
| 26 | 53 | a52 | b55 | a160 | 44 | 68 | 240 | 563 | 289 | 67 | 50 | 46 |
| 27 | 53 | a50 | 22 | a200 | a45 | 76 | 236 | 474 | 272 | 67 | 54 | 46 |
| 28 | 56 | a52 | b22 | a130 | 48 | 138 | 233 | 567 | 233 | 66 | 55 | 45 |
| 29 | 68 | a56 | a23 | 108 | - | 252 | 230 | 612 | 226 | 65 | 55 | 46 |
| 30 | 52 | a55 | a25 | b90 | - | 408 | 284 | 561 | 252 | 63 | 53 | 46 |
| 31 | 52 | - | a23 | b80 | - | a700 | - | 456 | - | 62 | 51 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|-------|---------------------|
| October | 1,492 | 68 | 40 | 45.2 | 2,780 |
| November | 1,830 | 112 | 40 | 51.0 | 3,630 |
| December | 1,580 | 80 | 22 | 51.0 | 3,130 |
| Calendar year 1941 | 42,536 | 678 | 22 | 117 | 84,370 |
| January | 2,586 | 200 | 23 | 77.0 | 4,730 |
| February | 2,078 | 180 | 35 | 74.2 | 4,120 |
| March | 4,839 | 700 | 50 | 156.2 | 9,600 |
| April | 11,203 | 620 | 230 | 373 | 22,220 |
| May | 14,546 | 1,010 | 256 | 463 | 28,460 |
| June | 12,713 | 828 | 226 | 424 | 25,220 |
| July | 3,971 | 272 | 62 | 128 | 7,880 |
| August | 1,630 | 61 | 47 | 52.6 | 3,230 |
| September | 1,451 | 56 | 45 | 47.7 | 2,840 |
| Water year 1941-42 | 59,411 | 1,010 | 22 | 165 | 117,800 |

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Bridge Creek near Frenchglen, Oreg.

b Stage-discharge relation affected by ice.

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Donner und Blitzen River near Voltage, Oreg.

Location.- Water-stage recorder, lat. 43°16', long. 118°51', in SW¹/₄ sec. 2, T. 27 S., R. 31 E., just downstream from Sodhouse diversion dam of U. S. Fish and Wildlife Service, 1 1/2 miles south of Sodhouse Lane and headquarters of Malheur Migratory Waterfowl Refuge, and 2 miles southwest of former post office at Voltage. Datum of gage is 4,097.58 feet above mean sea level, datum of 1929 (levels by Fish and Wildlife Service). Auxiliary staff gage at bridge at Sodhouse Lane; datum of gage is 4,091.17 feet above mean sea level, datum of 1929.

Records available.- February 1938 to September 1942. April 1916 to June 1919, March 1921 to June 1922, fragmentary records at site 1 1/2 miles downstream, including diversions and overflow through 16 culverts crossing Sodhouse Lane.

Extremes.- Maximum discharge during year, 616 second-feet Jan. 30 (gage height, 6.26 feet); minimum discharge observed, 12 second-feet Aug. 18, 19, Sept. 18-30 (gage height, 0.42 foot, elevation of inlet pipe; flow may have been less).

1916-19, 1921-22, 1937-42: Maximum discharge observed, 800 second-feet May 21, 1917 (gage height, 3.3 feet, site and datum then in use); little or no flow at times, June to August 1918.

Remarks.- Records good except those for period of ice effect and those for period of no gage-height record, which are poor. Most of flow diverted above station for irrigation and for flooding waterfowl refuge; Kado and Springer Canals divert water below station.

Cooperation.- Records collected in cooperation with U. S. Fish and Wildlife Service.

Rating tables, water year 1941-42, except period of ice effect (gage height, in feet, and discharge, in second-feet)

| Oct. 1 to Jan. 29 | | | | Jan. 30 to Sept. 30 | | | | | |
|-------------------|-----|-----|-----|---------------------|----|-----|-----|-----|-----|
| 1.0 | 34 | 3.0 | 199 | 0.4 | 11 | 1.6 | 82 | 3.8 | 305 |
| 1.3 | 53 | 3.8 | 290 | .7 | 25 | 2.0 | 114 | 4.9 | 437 |
| 1.6 | 74 | 4.8 | 413 | 1.0 | 42 | 2.5 | 161 | 6.2 | 608 |
| 2.0 | 103 | 5.8 | 543 | 1.3 | 61 | 3.0 | 215 | | |
| 2.5 | 147 | | | | | | | | |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 41 | 83 | 76 | b75 | 490 | 117 | 342 | 186 | 512 | 190 | 16 | 13 |
| 2 | 47 | 89 | 82 | b75 | 466 | 129 | 386 | 166 | 515 | 257 | 16 | 14 |
| 3 | 109 | 110 | 94 | b70 | 476 | 131 | 387 | 187 | 515 | 266 | 20 | 15 |
| 4 | 36 | 106 | 114 | b65 | 528 | 135 | 322 | 169 | 515 | 255 | 22 | 20 |
| 5 | 36 | 124 | 105 | b65 | 500 | 134 | 341 | 186 | 516 | 258 | 19 | 43 |
| 6 | 37 | 137 | 100 | 79 | 264 | 143 | 382 | 283 | 518 | 264 | 16 | 48 |
| 7 | 40 | 152 | 94 | 83 | 283 | 164 | 382 | 369 | 518 | 263 | 15 | 42 |
| 8 | 41 | 123 | 90 | 170 | 334 | 155 | 379 | 419 | 518 | 248 | 16 | 38 |
| 9 | 38 | 114 | 86 | 164 | *341 | 169 | 375 | 441 | 519 | 232 | 31 | 28 |
| 10 | 36 | 109 | 76 | 211 | 330 | 198 | 353 | 451 | 519 | 192 | 30 | 19 |
| 11 | 37 | 104 | 70 | 220 | 299 | 218 | 372 | 458 | 506 | 186 | 26 | 16 |
| 12 | 39 | 100 | 67 | 197 | 268 | 289 | 384 | 465 | 502 | 182 | 24 | 16 |
| 13 | 38 | *97 | 62 | 177 | 230 | 364 | 400 | 461 | 498 | 172 | 22 | 16 |
| 14 | 39 | 86 | 67 | 163 | 195 | 359 | 403 | 382 | 480 | 167 | 18 | 15 |
| 15 | 45 | 70 | 73 | 160 | 167 | 311 | 409 | 338 | 454 | 163 | 13 | 15 |
| 16 | 44 | 93 | 88 | 139 | 165 | 270 | 420 | 311 | 439 | 145 | 13 | 15 |
| 17 | 46 | 104 | 112 | 159 | 150 | 247 | 418 | 299 | 435 | 143 | 13 | 15 |
| 18 | 45 | 100 | 105 | 170 | 142 | 217 | 413 | 274 | 381 | 50 | 12 | 12 |
| 19 | 48 | 93 | 94 | 148 | 146 | 220 | 405 | 262 | 365 | 70 | 12 | 12 |
| 20 | 46 | 86 | 98 | 144 | 141 | 213 | 391 | 259 | 345 | 62 | 14 | 12 |
| 21 | 53 | 77 | 105 | 145 | 157 | 200 | 377 | 262 | 325 | 74 | 13 | 12 |
| 22 | 22 | 73 | 100 | 145 | 150 | 184 | 347 | 264 | 250 | 58 | 13 | 12 |
| 23 | 63 | 64 | 94 | a145 | 144 | 235 | 292 | 299 | 241 | 158 | 13 | 12 |
| 24 | 68 | 56 | 91 | a145 | 127 | 225 | 239 | 342 | 174 | 51 | 13 | 12 |
| 25 | 59 | 62 | 82 | a180 | 126 | 218 | 226 | 369 | 154 | 49 | 13 | 12 |
| 26 | 61 | 75 | b70 | a230 | 116 | 196 | 218 | 389 | 155 | 47 | 13 | 12 |
| 27 | 70 | 63 | b65 | 290 | 121 | 149 | 217 | 402 | 161 | 44 | 13 | 12 |
| 28 | 73 | 72 | b65 | 416 | 118 | 145 | 214 | 423 | 166 | 31 | 12 | 12 |
| 29 | 78 | 68 | b70 | 543 | - | 160 | 215 | 447 | 162 | 25 | 12 | 12 |
| 30 | 93 | 73 | b80 | 600 | - | 203 | 212 | 451 | 166 | 22 | 12 | 12 |
| 31 | 88 | - | b75 | 551 | - | 282 | - | 481 | - | 18 | 13 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Rudoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 1,586 | 93 | 36 | 51.2 | 3,150 |
| November | 2,743 | 137 | 56 | 91.4 | 5,440 |
| December | 2,622 | 114 | 52 | 84.6 | 5,200 |
| Calendar year 1941 | 23,274 | 343 | 7 | 63.8 | 46,160 |
| January | 6,154 | 600 | 70 | 199 | 12,210 |
| February | 6,964 | 528 | 116 | 249 | 13,810 |
| March | 6,350 | 359 | 117 | 206 | 12,660 |
| April | 10,200 | 420 | 212 | 340 | 20,230 |
| May | 10,450 | 481 | 166 | 337 | 20,730 |
| June | 11,512 | 519 | 154 | 384 | 22,830 |
| July | 4,155 | 266 | 18 | 134 | 8,240 |
| August | 508 | 31 | 12 | 16.4 | 1,010 |
| September | 540 | 48 | 12 | 15.0 | 1,070 |
| Water year 1941-42 | 63,814 | 600 | 12 | 175 | 126,600 |

* Winter discharge measurement made on this day.
 a No gage-height record; discharge computed on basis of weather records.
 b Stage-discharge relation affected by ice.
 Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
 To convert war time to standard time, subtract 1 hour.

Bridge Creek near Frenchglen, Oreg.

Location.- Water-stage recorder and concrete control, lat. 42°50', long. 118°51', in NW $\frac{1}{4}$ sec. 33, T. 31 S., R. 32 $\frac{1}{2}$ E., at mouth of canyon, 1,000 feet upstream from road crossing and $\frac{3}{8}$ miles northeast of Frenchglen.

Records available.- March 1911 to September 1916, December 1937 to September 1942.

Extremes.- Maximum discharge during year, 214 second-feet May 28 (gage height, 2.23 feet), from rating curve extended above 55 second-feet by velocity-area studies at the control and logarithmic plotting; minimum, 9.4 second-feet Dec. 11-17 (gage height, 1.00 foot). 1911-16, 1937-42; Maximum discharge, 230 second-feet sometime during period Mar. 16-18, 1939 (gage height, 3.30 feet, from floodmark), from rating curve extended above 30 second-feet; minimum observed, 7 second-feet Feb. 24, 25, 1912, Dec. 30, 1937, to Jan. 4, 1938.

Remarks.- Records good below, and fair above, 70 second-feet. No diversion or regulation above station. Low flow is maintained by large springs.

Cooperation.- Records collected in cooperation with U. S. Fish and Wildlife Service.

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 11 | 11 | 9.7 | 10 | 12 | 10 | 27 | 46 | 40 | 16 | 15 | 15 |
| 2 | 11 | 13 | 9.7 | 10 | 23 | 10 | 27 | 47 | 49 | 16 | 15 | 15 |
| 3 | 11 | 11 | 9.7 | 10 | 19 | 10 | 31 | 40 | 44 | 16 | 15 | 15 |
| 4 | 11 | 10 | 9.7 | 9.7 | 14 | 10 | 37 | 36 | 32 | 16 | 15 | 15 |
| 5 | 11 | 10 | 9.7 | 9.7 | 12 | 18 | 32 | 64 | 29 | 16 | 15 | 15 |
| 6 | 11 | 10 | 9.7 | 9.7 | 20 | 17 | 31 | 75 | 23 | 15 | 15 | 15 |
| 7 | 11 | 10 | 9.7 | 10 | 20 | 16 | 31 | 55 | 26 | 15 | 14 | 15 |
| 8 | 11 | 10 | 9.7 | 9.7 | 15 | 21 | 35 | 38 | 25 | 15 | 14 | 15 |
| 9 | 11 | 10 | 9.7 | 12 | 13 | 26 | 38 | 43 | 24 | 15 | 14 | 15 |
| 10 | 11 | 10 | 9.7 | 11 | 12 | 34 | 40 | 73 | 22 | 15 | 14 | 15 |
| 11 | 11 | 10 | 9.4 | 11 | 13 | 33 | 43 | 54 | 22 | 15 | 14 | 15 |
| 12 | 11 | 10 | 9.4 | 10 | 11 | 32 | 46 | 42 | 21 | 15 | 14 | 15 |
| 13 | 11 | 10 | 9.4 | 10 | 10 | 23 | 46 | 36 | 20 | 15 | 14 | 15 |
| 14 | 11 | 10 | 9.4 | 9.7 | 10 | 16 | 44 | 33 | 19 | 15 | 14 | 15 |
| 15 | 10 | 10 | 9.4 | 9.7 | 10 | 15 | 37 | 35 | 19 | 15 | 14 | 14 |
| 16 | 10 | 10 | 9.4 | 9.7 | 10 | 16 | 37 | 35 | 19 | 15 | 14 | 14 |
| 17 | 11 | 10 | 9.4 | 9.7 | 10 | 15 | 35 | 31 | 17 | 15 | 14 | 14 |
| 18 | 11 | 10 | 9.7 | 9.7 | 10 | 17 | 32 | 28 | 17 | 15 | 14 | 14 |
| 19 | 11 | 10 | 10 | 9.7 | 10 | 14 | 32 | 28 | 17 | 15 | 14 | 14 |
| 20 | 11 | 10 | 10 | 9.7 | 10 | 13 | 34 | 28 | 17 | 15 | 14 | 14 |
| 21 | 11 | 10 | 10 | 9.7 | 10 | 13 | 34 | 30 | 16 | 15 | 14 | 14 |
| 22 | 11 | 10 | 10 | 9.7 | 10 | 16 | 35 | 33 | 16 | 15 | 14 | 14 |
| 23 | 11 | 10 | 10 | 9.7 | 10 | 14 | 31 | 35 | 16 | 15 | 14 | 14 |
| 24 | 11 | 10 | 10 | 9.7 | 10 | 14 | 28 | 29 | 16 | 15 | 14 | 14 |
| 25 | 11 | 10 | 10 | 12 | 10 | 13 | 27 | 30 | 17 | 15 | 14 | 14 |
| 26 | 10 | 10 | 10 | 21 | 10 | 13 | 26 | 33 | 20 | 15 | 14 | 14 |
| 27 | 10 | 9.7 | 10 | 24 | 10 | 13 | 25 | 31 | 23 | 15 | 15 | 15 |
| 28 | 11 | 9.7 | 10 | 21 | 10 | 13 | 25 | 86 | 19 | 15 | 15 | 15 |
| 29 | 11 | 9.7 | 10 | 15 | - | 19 | 23 | 30 | 17 | 15 | 15 | 15 |
| 30 | 10 | 9.7 | 10 | 14 | - | 23 | 29 | 60 | 16 | 15 | 15 | 15 |
| 31 | 11 | - | 9.7 | 12 | - | 28 | - | 58 | - | 15 | 15 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|--------------------|------------------|---------|---------|------|---------------------|
| October | 356 | 11 | 10 | 10.6 | 666 |
| November | 303.5 | 13 | 9.7 | 10.1 | 603 |
| December | 302.2 | 10 | 9.4 | 9.75 | 599 |
| Calendar year 1941 | 4,478.0 | 45 | 9.4 | 12.3 | 8,880 |
| January | 358.5 | 24 | 9.7 | 11.6 | 711 |
| February | 344 | 23 | 10 | 12.3 | 682 |
| March | 555 | 38 | 10 | 17.8 | 1,100 |
| April | 998 | 46 | 23 | 33.3 | 1,980 |
| May | 1,370 | 86 | 28 | 44.2 | 2,720 |
| June | 683 | 49 | 16 | 22.8 | 1,360 |
| July | 469 | 16 | 15 | 15.1 | 930 |
| August | 445 | 15 | 14 | 14.4 | 883 |
| September | 438 | 15 | 14 | 14.6 | 869 |
| Water year 1941-42 | 6,600.5 | 86 | 9.4 | 18.1 | 13,090 |

Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter. To convert war time to standard time, subtract 1 hour.

Trout Creek near Denio, Oreg.

Location.- Water-stage recorder, lat. 42°10', long. 118°28', in SW $\frac{1}{4}$ sec. 26, T. 39 S., R. 35 E., 0.4 mile upstream from bridge at mouth of canyon, 5 miles east of Trout Creek Ranch, and 14 miles northeast of Denio. Datum of gage is 4,351.59 feet above mean sea level, datum of 1929.

Records available.- March 1911 to March 1912, April 1922 to November 1923, April 1925 to September 1942.

Average discharge.- 11 years (1922-23, 1932-42), 13.2 second-feet.

Extremes.- Maximum discharge during year, 239 second-feet May 23 (gage height, 4.24 feet); minimum observed, 0.9 second-foot Dec. 27, 1911-12, 1922-23, 1925-42; Maximum discharge, 343 second-feet Aug. 1, 1933, from rating curve extended above 125 second-foot; probably no flow at times. Maximum stage known, 6.0 feet (caused by cloudburst), sometime between 1922 and 1932.

Remarks.- Records good except those for periods of uncertain gage-height corrections, Apr. 5 to June 1, July 11-15, which are fair and those for period Dec. 28 to Feb. 28, which are poor. Some diversions above station for irrigation of small fields; large diversions below station for irrigation.

Rating table, water year 1941-42, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 9 to July 27)

| | | | | | |
|-----|-----|-----|------|-----|-----|
| 1.4 | 0.8 | 2.0 | 11.5 | 3.0 | 90 |
| 1.5 | 1.5 | 2.2 | 19.5 | 3.2 | 111 |
| 1.6 | 2.8 | 2.4 | 34 | 3.5 | 147 |
| 1.7 | 4.4 | 2.6 | 52 | 3.8 | 183 |
| 1.8 | 6.3 | 2.8 | 70 | 4.3 | 247 |

Discharge, in second-feet, water year October 1941 to September 1942

| Day | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. |
|-----|------|------|------|------|------|------|------|-----|------|------|------|-------|
| 1 | 3.9 | 7.0 | 5.9 | 1.0 | 6.5 | 6.8 | 13 | 43 | 125 | 18 | 6.1 | 3.8 |
| 2 | 4.1 | 8.5 | 5.7 | 1.0 | 6.8 | 8.0 | 15 | 38 | 134 | 17 | 5.5 | 3.6 |
| 3 | 4.1 | 7.5 | 7.5 | 2.0 | 7.0 | 7.0 | 18 | 36 | 109 | 19 | 5.2 | 3.3 |
| 4 | 4.2 | 8.0 | 7.0 | 1.8 | 6.8 | 6.5 | 23 | 41 | 122 | 19 | 5.0 | 3.4 |
| 5 | 4.4 | 7.7 | 6.8 | 1.8 | 6.1 | 8.0 | 25 | 40 | 122 | 19 | 5.0 | 3.3 |
| 6 | 4.6 | 7.0 | 6.3 | 2.5 | 8.2 | 7.3 | 28 | 44 | 142 | 19 | 5.2 | 3.3 |
| 7 | 4.8 | 6.8 | 5.7 | 4.0 | 8.2 | 6.6 | 28 | 51 | 134 | 18 | 5.0 | 3.4 |
| 8 | 4.6 | 6.5 | 5.5 | 6.5 | 7.5 | 9.0 | 32 | 63 | 122 | 16 | 5.0 | 3.1 |
| 9 | 4.8 | 6.3 | 5.7 | 6.0 | 7.0 | 8.7 | 37 | 73 | 110 | 15 | 4.4 | 3.3 |
| 10 | 4.6 | 6.1 | 6.1 | 5.0 | 6.1 | 9.0 | 41 | 82 | 99 | 15 | 3.8 | 4.1 |
| 11 | 4.6 | 6.1 | 5.0 | 4.5 | 7.3 | 9.8 | 47 | 79 | 87 | 13 | 3.6 | 5.2 |
| 12 | 4.6 | 5.9 | 5.9 | 4.0 | 5.5 | 12 | 50 | 72 | 75 | 13 | 3.9 | 4.8 |
| 13 | 4.6 | 5.9 | 6.1 | 3.8 | 5.0 | 12 | 55 | 67 | 70 | 12 | 3.8 | 4.6 |
| 14 | 5.0 | 5.7 | 5.7 | 3.7 | 5.4 | 9.5 | 62 | 67 | 66 | 11 | 4.1 | 4.4 |
| 15 | 5.2 | 5.7 | 5.9 | 3.6 | 6.0 | 11 | 56 | 68 | 66 | 11 | 3.8 | 4.1 |
| 16 | 5.2 | 6.1 | 5.9 | 4.0 | 5.8 | 11 | 54 | 66 | 60 | 10 | 3.4 | 3.9 |
| 17 | 5.2 | 6.3 | 5.7 | 4.6 | 5.4 | 10 | 52 | 68 | 53 | 10 | 3.4 | 4.1 |
| 18 | 5.2 | 5.9 | 5.5 | 4.4 | 4.5 | 10 | 48 | 68 | 48 | 10 | 3.4 | 4.6 |
| 19 | 5.4 | 5.5 | 5.5 | 4.0 | 4.0 | 9.3 | 45 | 72 | 44 | 9.5 | 3.4 | 5.0 |
| 20 | 6.8 | 4.1 | 5.9 | 4.5 | 5.5 | 8.2 | 48 | 87 | 37 | 6.8 | 3.3 | 5.0 |
| 21 | 6.8 | 4.2 | 5.4 | 5.7 | 4.9 | 9.5 | 54 | 110 | 29 | 6.3 | 3.4 | 4.8 |
| 22 | 6.5 | 5.4 | 5.4 | 6.1 | 4.9 | 9.3 | 66 | 131 | 25 | 6.3 | 3.3 | 4.6 |
| 23 | 5.9 | 4.1 | 5.4 | 9.5 | 5.4 | 9.3 | 62 | 195 | 22 | 7.0 | 3.3 | 4.2 |
| 24 | 5.7 | 6.3 | 3.8 | 7.7 | 6.5 | 9.0 | 54 | 164 | 22 | 6.8 | 3.0 | 3.8 |
| 25 | 6.1 | 6.1 | 4.4 | 7.0 | 5.9 | 8.0 | 50 | 164 | 23 | 6.1 | 3.3 | 3.3 |
| 26 | 6.8 | 5.9 | 3.3 | 8.5 | 5.7 | 7.7 | 43 | 143 | 28 | 5.9 | 3.3 | 3.3 |
| 27 | 6.8 | 6.5 | 1.4 | 10 | 6.3 | 8.5 | 45 | 141 | 29 | 5.9 | 3.3 | 3.1 |
| 28 | 7.5 | 5.7 | 4.2 | 9.0 | 6.5 | 8.7 | 47 | 143 | 24 | 5.9 | 4.1 | 3.0 |
| 29 | 8.0 | 5.7 | 5.4 | 7.5 | - | 9.0 | 42 | 135 | 20 | 5.4 | 4.1 | 3.0 |
| 30 | 7.3 | 5.7 | 4.0 | 7.0 | - | 9.3 | 40 | 135 | 19 | 5.7 | 4.1 | 2.8 |
| 31 | 6.8 | - | 2.5 | 7.7 | - | 11 | - | 131 | - | 5.9 | 3.9 | - |

| Month | Second-foot-days | Maximum | Minimum | Mean | Runoff in acre-feet |
|-------------------------|------------------|---------|---------|------|---------------------|
| October..... | 170.1 | 8.0 | 3.9 | 5.49 | 337 |
| November..... | 183.2 | 8.5 | 4.1 | 6.11 | 363 |
| December..... | 164.5 | 7.5 | 1.4 | 5.31 | 326 |
| Calendar year 1941..... | 5,593.3 | 112 | 1.4 | 15.3 | 11,090 |
| January..... | 168.4 | 10 | 1.0 | 5.11 | 314 |
| February..... | 170.7 | 8.2 | 4.0 | 6.10 | 339 |
| March..... | 278.9 | 12 | 6.5 | 9.00 | 553 |
| April..... | 1,277 | 66 | 13 | 42.6 | 2,530 |
| May..... | 2,820 | 195 | 38 | 91.0 | 5,590 |
| June..... | 2,066 | 142 | 19 | 68.9 | 4,100 |
| July..... | 349.5 | 19 | 5.4 | 11.2 | 691 |
| August..... | 125.4 | 6.1 | 3.0 | 4.05 | 249 |
| September..... | 116.2 | 5.2 | 2.8 | 3.87 | 230 |
| Water year 1941-42..... | 7,876.9 | 195 | 1.0 | 21.6 | 15,620 |

Note.- Stage-discharge relation affected by ice Dec. 30 to Jan. 21, 23, 29, Feb. 15-22.
Time basis: Pacific standard time prior to 2 a.m., Feb. 9, 1942; Pacific war time thereafter.
To convert war time to standard time, subtract 1 hour.

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow were made at the points in the Great Basin indicated in the following table:

Miscellaneous discharge measurements in the Great Basin during the water year October 1941 to September 1942

| Great Salt Lake Basin | | | | |
|-----------------------|--|---------------------------------|---|----------------------|
| Date | Stream | Tributary to or diverting from- | Locality | Discharge (sec.-ft.) |
| Oct. 25 | Bear River..... | Great Salt Lake.... | N $\frac{1}{2}$ sec. 32, T. 18 N., R. 120 W., sixth principal meridian, at upper end of Woodruff Narrows in Wyoming and 7 miles east of Woodruff, Utah. | 105 |
| 25 |do..... |do..... | SE $\frac{1}{2}$ sec. 10, T. 9 N., R. 7 E., at Rees Bridge 1 $\frac{3}{4}$ miles northeast of Woodruff, Utah. | 34.5 |
| May 1 | Thomas Fork..... | Bear River..... | In sec. 10, T. 14 S., R. 46 E., near crossing of U. S. Highway 50, below diversions, $\frac{3}{8}$ mile above mouth, and 1 $\frac{1}{2}$ miles west of Border, Wyo. | 90.0 |
| June 8 |do..... |do..... |do..... | 26.5 |
| July 12 |do..... |do..... |do..... | 15.1 |
| Aug. 13 |do..... |do..... |do..... | 24.8 |
| Sept. 16 |do..... |do..... |do..... | 20.0 |
| June 7 | Dry Creek..... | Thomas Fork..... | In SE $\frac{1}{2}$ sec. 3, T. 12 S., R. 46 E., at road crossing, 3 miles north of Geneva, Idaho. | 5.72 |
| Sept. 16 |do..... |do..... |do..... | .42 |
| July 11 | Freuss Creek..... |do..... | Near west line in sec. 10, T. 12 S., R. 46 E., 2 $\frac{1}{2}$ miles northwest of Geneva, Idaho. | 1.66 |
| Aug. 13 |do..... |do..... |do..... | 1.23 |
| Oct. 6 | Gwenford Mill ditch. | Malad River..... | In sec. 11, T. 15 S., R. 35 E., $\frac{3}{8}$ mile below point of diversion, 250 feet northeast of gaging station on Malad River near Samaria, and 1 $\frac{1}{2}$ miles north of Samaria, Idaho. | 1.02 |
| Nov. 12 |do..... |do..... |do..... | 0 |
| Dec. 11 |do..... |do..... |do..... | 0 |
| Feb. 6 |do..... |do..... |do..... | 0 |
| Mar. 20 |do..... |do..... |do..... | 0 |
| Apr. 14 |do..... |do..... |do..... | 0 |
| Apr. 23 |do..... |do..... |do..... | 0 |
| May 3 |do..... |do..... |do..... | 0 |
| June 10 |do..... |do..... |do..... | 1.66 |
| July 16 |do..... |do..... |do..... | 2.24 |
| Aug. 15 |do..... |do..... |do..... | a.03 |
| Sept. 18 |do..... |do..... |do..... | 1.40 |
| June 10 | Causey (Dry Bread) Creek. | South Fork of Ogden River. | SW $\frac{1}{4}$ sec. 23, T. 7 N., R. 3 E., 3,000 feet above Camp Kiesel, 3,300 feet above mouth of Bear Wallow Canyon, and 11 miles northeast of Huntsville, Utah. | 39.0 |
| July 9 |do..... |do..... | NW $\frac{1}{4}$ sec. 26, T. 7 N., R. 3 E., at Camp Kiesel, 400 feet above mouth of Bear Wallow Canyon and 11 miles northeast of Huntsville, Utah. | 18.6 |
| Aug. 18 |do..... |do..... |do..... | 13.2 |
| a Estimated. | | | | |
| Sevier Lake Basin | | | | |
| Sept. 6 | Antimony Creek.... | East Fork of Sevier River. | Near power plant site in NW $\frac{1}{4}$ sec. 23, T. 31 S., R. 1 W., 7 miles east of Antimony, Utah. | 16.5 |
| 6 | Bench Canal..... | Antimony Creek..... | At weir at Davis Ranch, in SW $\frac{1}{4}$ sec. 19, T. 31 S., R. 1 W., $\frac{3}{4}$ miles southeast of Antimony, Utah. | 12.1 |
| 7 |do..... |do..... | At head in NW $\frac{1}{4}$ sec. 20, T. 31 S., R. 1 W., $\frac{5}{8}$ miles southeast of Antimony, Utah. | 18.8 |
| Antelope Valley Basin | | | | |
| Oct. 23 | Punch Bowl Creek.. | Rock Creek..... | At mouth, near Valyermo, Calif..... | a 0.8 |
| Nov. 18 |do..... |do..... |do..... | a.05 |
| Dec. 2 |do..... |do..... |do..... | a.1 |
| Jan. 20 |do..... |do..... |do..... | a.3 |
| Mar. 3 |do..... |do..... |do..... | a.2 |
| 18 |do..... |do..... |do..... | a.2 |
| 31 |do..... |do..... |do..... | a.2 |
| Apr. 21 |do..... |do..... |do..... | a.8 |
| May 5 |do..... |do..... |do..... | a.5 |
| June 12 |do..... |do..... |do..... | 0 |
| a Estimated. | | | | |
| Warner Lakes Basin | | | | |
| May 25 | Outlet of Hart Lake. | Warner Lakes..... | Sec. 7, T. 36 S., R. 25 E., near Plush, Oreg. | 490 |
| 4 | Inlet to Flagstaff Lake. |do..... | SE $\frac{1}{4}$ sec. 5, T. 35 S., R. 25 E., at Flagstaff Bridge near Plush, Oreg. | 454 |
| June 17 | Artificial channel from Campbell Lake. |do..... | SW $\frac{1}{4}$ sec. 27, T. 34 S., R. 25 E., 1 $\frac{1}{2}$ miles northwest of natural outlet (closed by dike), near Plush, Oreg. | 33.0 |

MISCELLANEOUS DISCHARGE MEASUREMENTS

Miscellaneous discharge measurements in the Great Basin during the water year
October 1941 to September 1942--Continued

Silver Lake Basin

| Date | Stream | Tributary to or diverting from- | Locality | Discharge (sec.-ft.) |
|---------|--|---------------------------------|---|----------------------|
| May 2 | Silver Lake Irrigation District Canal. | Silver Creek..... | Gaging station at intake, near Silver Lake, Oreg. | 4.9 |
| June 16 | ...do..... | ...do..... | ...do..... | 13.8 |

Malheur and Harney Lakes Basin

| | | | | |
|----------|---------------------------|-------------------|--|------|
| Sept. 25 | Donner und Blitzen River. | Malheur Lake..... | 100 feet above "P" ranch diversion near Frenchglen, Oreg. | 55.7 |
| May 19 | Mud Lake Outlet.. | Harney Lake..... | Sec. 18, T. 27 S., R. 30 E., at Sand Gap, 6 miles southwest of Narrows, Oreg. | 85.7 |
| June 1 | ...do..... | ...do..... | ...do..... | 104 |
| 30 | ...do..... | ...do..... | ...do..... | 94.9 |
| Aug. 27 | ...do..... | ...do..... | ...do..... | 25.8 |
| June 13 | Silver Creek..... | ...do..... | NW $\frac{1}{4}$ sec. 30, T. 22 S., R. 26 E., above Cecil Ranch near Suntex, Oreg. | 72.7 |

Alvord Lake Basin

| | | | | |
|--------|--------------------------|------------------|--|------|
| Apr. 9 | Little Cottonwood Creek. | Trout Creek..... | Sec. 28, T. 39 S., R. 35 E., near Denio, Oreg. | 14.1 |
|--------|--------------------------|------------------|--|------|

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