Surface Water Supply of the United States 1946

Part 10. The Great Basin

Prepared under the direction of C. G. PAULSEN, *Chief Hydraulic Engineer*

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Prepared in cooperation with the States of California, Idaho, Nevada, Oregon, Utah, and Wyoming, and other agencies

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PREFACE

This report was prepared by the Geological Survey in cooperation with the States of California, Idaho, Nevada, Oregon, Utah, and Wyoming, and other agencies, by personnel of the Water Resources Branch under the direction of:

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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, 1946. 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 10,900 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. In July 1946, 5,810 gaging stations, including those in Hawaii, were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made during the water year 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, under the heading "Cooperation," in the introductory matter that precedes the gaging-station records in each volume. In the present volume, the section on cooperation of the second kind appears on page 12.

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.

"Contents" is a term applied to the volume of water in a reservoir. It is computed on the basis of a level pool and does not include bank storage unless otherwise indicated.

EXPLANATION OF DATA

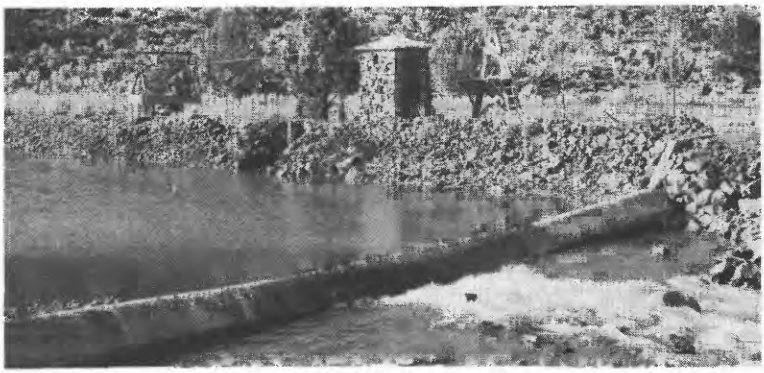
The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording 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 in figure 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the "shifting-control method," in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. 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.

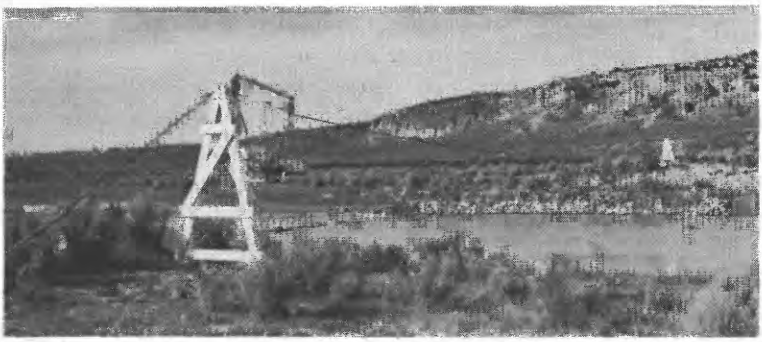
At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method," in which the slope or fall in a reach of the stream is a factor in the determination of discharge. Information requisite 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. For those stations at which the stage-discharge relation is affected by ice, the days included in the periods of ice effect either are indicated in the table by symbols referring to a footnote that states this fact or are given in a general note following the table. The days on which discharge measurements were made during or between periods of ice effect, shortly before the first period, or shortly after the last period are similarly indicated by a footnote.

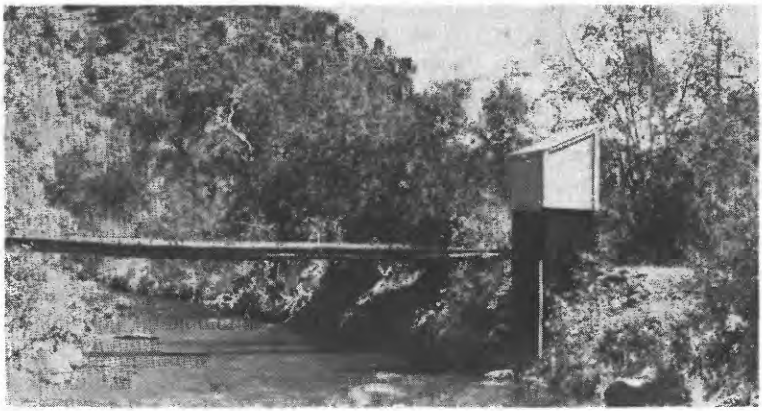
For most of the gaging stations on streams in the area covered by this report the data presented comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating



A. DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OREG.



B. SEVIER RIVER NEAR JUAB, UTAH.



C. BEAVER RIVER NEAR BEAVER, UTAH.

FIGURE 1.—GAGING-STATION STRUCTURES.

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 as determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum discharge represents the lowest stage, unless otherwise qualified. 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 a station at which the drainage area of the stream is less than 10 or more than 10,000 square miles or at which, on most days, the peak discharge exceeds the mean discharge by less than 10 percent.

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. 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 periods of rapidly changing stage 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.

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, 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.

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 error in the daily records is believed to be less than 5 percent; "good," less than 10 percent; "fair," less than 15 percent; and "poor," probably more than 15 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-feet 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 or reservoirs or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless its inclusion is indicated. Figures of second-feet 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 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 offices of the water-resources branch of the Geological Survey as follows:

East of the Mississippi River:
Albany, N. Y., 528 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 410 Grand Theater Building.
Augusta, Maine, Statehouse.
Baton Rouge, La., 124 Geology Building, Louisiana State University.
Boston, Mass., 939 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., 105 Engineering Building, University of Maryland.
Columbia, S. C., 207 Creason Building.
Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
Harrisburg, Pa., 490 Education Building.
Hartford, Conn., 203 Federal Building.
Indianapolis, Ind., 205 Underwriters 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.
Morgantown, W. Va., 406 Mineral Industries Building.
New Philadelphia, Ohio, Muskingum Watershed Conservancy District Build'ng.
Ocala, Fla, 304 Post Office Building.
Pittsburgh, Pa., 515 Plaza Building.
Raleigh, N. C., 908 Capital Club Building.
St. Paul, Minn., 1427 New Post Office Building.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex, Elm Street.
Washington, D. C., Federal Works Agency Building.
Williamsburg, Ky., Kentucky Highway Building.

West of the Mississippi River:
Albuquerque, N. Mex., 723 North Second Street.
Austin, Tex., 302 West Fifteenth Street.
Bismarck, N. Dak., 7 Eltinge Building.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 126 New Customhouse.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 408 Federal Building.
Honolulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
Lincoln, Nebr., 510 Rudge-Guenzel Building.
Los Angeles, Calif. 429-F United States Post Office and Courthouse.
Oklahoma City, Okla., 535 State Capitol.
Pierre, S. Dak., City Hall.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Ramsey Building.
St. Louis, Mo., 1004 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 702 Appraisers Building.
Santa Fe, N. Mex., 204 United States Courthouse.
Tacoma, Wash., 207 Federal 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.

Prior to publication, records of discharge in provisional form for individual stations may usually be obtained from the district offices listed above.

Early records of the flow of streams in the United States are published in the reports listed below. In many of these reports records for years earlier than those indicated have been included for some streams.

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 September 1890.
12th A, pt. 2	....do	1884 to June 30, 1891.
13th A, pt. 3	....do	1884-93.
14th A, pt. 2	Monthly discharge	1888-93.
B 131	Descriptions, measurements, gage heights, and ratings	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140	Descriptions, measurements, gage heights, ratings, and monthly discharge.	1895.
W 11	Gage heights	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge	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.	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	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 8. The data for any particular gaging 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, and 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. 8), contains, for the area covered by that report, a summary of yearly discharge at gaging stations at which 10 or more complete years of record have been collected. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1946

(For basins included see p. 5.)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b35, 36	36	36	36	c36, 37	37	37	d37, 38	38, e39	38, f39	38	38	38
1900 g...	47, h48	48	48, 149	49	49	49, j50	50	50	50	51	51	51	51	51
1901.....	66, 75	65, 75	65, 75	65, 75	k65, 66, 75	66, 75	k65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b82, 83	83	m82, 83	k83, 85	84	k83, 84	84	85	85	85	85	85	85
1903.....	97	b97, 98	98	97	k98, 99, n100	99	k98, 99	99	100	100	100	100	100	100
1904.....	o124, p125, q126	q126, 127	126	129	k128, 130	130, r131	k128, 131	132	133	133, s134	134	135	135	135
1905.....	o165, p166, q167	q167, 168	169	170	171	172	k169, 173	174	175, t177	176, s177	177	178	178	ul77, 178
1906.....	o201, p202, q203	q203, 204	205	206	207	208	k205, 209	210	211, t213	212, s213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20..	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	842	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939.....	871	872	873	874	875	876	877	878	879	880	881	882	883	884
1940.....	891	892	893	894	895	896	897	898	899	900	901	902	903	904
1941.....	921	922	923	924	925	926	927	928	929	930	931	932	933	934
1942.....	951	952	953	954	955	956	957	958	959	960	961	962	963	964
1943.....	971	972	973	974	975	976	977	978	979	980	981	982	983	984
1944.....	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014
1945.....	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044
1946.....	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064

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

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 alphabetically, some by States and some by drainage basins.

Reports containing compilations of records of discharge by States and drainage basins

Report	Period	Water-Supply Paper
STATE		
Alabama, Water powers of, with an appendix on stream measurements in Mississippi.	1895-1903	107
California, Water resources of, part 1, Stream measurements in Sacramento River Basin.	1887-1912	298
California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.	1878-1912	299
California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific Coast river basins.	1891-1912	300
California, southern, Surface water supply of Pacific slope of	1890-1918	447
California, Surface water supply of Sacramento River Basin	1895-1927	597-E
California, Surface water supply of San Joaquin River Basin	1895-1927	636-D
California, southern, Surface water supply of Pacific slope basins in	1894-1927	636-E
California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.	1895-1927	637-A
Colorado, Water resources of	1884-1900	74
Georgia, Water resources of	1895-1905	197
Massachusetts, Surface waters of	1845-1915	415
Nebraska, Surface water supply of	1894-1906	230
Oregon, Surface water supply of	1878-1910	370
Texas, Summary of records of surface waters of	1898-1937	850
Vermont, Surface waters of	1875-1916	424
Washington, Summary of hydrometric data in	1878-1919	492
Washington, Summary of records of surface waters of	1919-35	870
Wisconsin, northern, Water power of	1895-1905	156
Wyoming, Surface waters of, and their utilization	1894-1921	469
DRAINAGE BASIN		
Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization	1888-1914	395
Colorado River, upper (Colo., Utah), and its utilization	1897-1927	617
Colorado River Basin (Ariz., Calif., Colo., Utah, Wyo.), Surface waters at base stations in.	1891-1938	918
Colorado River Basin (Ariz., Calif., Nev., N. Mex., Utah), Surface waters at stations on tributaries in lower.	1888-1938	1049
Columbia River Basin, upper (Mont., Idaho), Surface waters of	1898-1938	916
Great Salt Lake Basin, Water powers of	1889-1920	517
Green River (Colo., Utah, Wyo.) and its utilization	1894-1926	618
Kennebec River Basin (Maine), Water resources of	1890-1906	198
Milk River. See St. Mary and Milk Rivers.		
Missouri and St. Mary River Basins (Mont.), Surface waters of	1881-1938	917
New-Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of	1895-1920	536
Penobscot River Basin (Maine), Water resources of	1904-9	279
Potomac River Basin (D. C., Md., W. Va.)	1895-1906	192
Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of	1888-1913	358
St. Mary and Milk Rivers (Mont., Canada), Water supply of	1898-1917	491
St. Mary River. See St. Mary and Milk Rivers; Missouri and St. Mary River Basin.		
Sevier Lake Basin (Utah), Utilization of surface water resources of	1889-1937	920
Susquehanna River Basin (Pa., Md.), Hydrography of	1890-1904	109

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 compilations of records of discharge

State	Period	Report	Issued by
Alabama	1895-1915	Bull. 17, Water powers of Alabama	Geological Survey of Alabama.
Arkansas	1857-1928	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	1881-1936	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]	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.
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	State Planning Board.
Do	1873-1940	Water-Supply Bull. 1, Summaries of yearly and flood flow relating to Iowa streams.	Iowa Geological Survey.
Do	1941-42	Water-Supply Bull. 2, Surface water resources of Iowa.	Do.

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

State reports containing compilations of records of discharge--Continued

State	Period	Report	Issued by
Kansas.....	1895-1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1919-24	....do.....	Do.
Do.....	1924-28	Report of Division of Water Resources.....	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.
Do.....	1892-1943	Bull. 1, Summary of records of surface waters of Maryland and the Potomac River Basin.	Department of Geology, Mines, and Water Resources.
Minnesota....	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri.....	1857-1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Bureau of Geology and Mines.
Do.....	1927-39	Vol. 26, 2d series, Surface waters of Missouri.	Missouri Geological Survey and Water Resources.
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 Hampshire	1889-1922	Annual and statistical report, vol. 12[2]...	Public Service Commission.
New Jersey...	1892-1928	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.
Do.....	1934-40	Special Rept. 9, Surface water supply of New Jersey.	Do.
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.
Do.....	1866-1945	Hydrologic Data on the Neuse River Basin.,	Do.
Do.....	1820-1945	Hydrologic Data on the Cape Fear River Basin.	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.
Do.....	1882-1944	Supplement B, 4th biennial report.....	State Water Conservation Commission.
Ohio.....	1898-1921	Bull. 73, Ohio stream flow, Part 1.....	Engineering Experiment Station, Ohio State University.
Do.....	1898-1944	Bull. 127, Ohio stream flow, Part 2.....	Do.
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. 111, 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.....	Office of the State Engineer.
Do.....	1906-10	7th biennial report.....	Do.
Do.....	1911-16	10th biennial report.....	Do.
Virginia.....	1895-1927	Bull. 31, Water resources of Virginia.....	Virginia Geological Survey.
Do.....	1927-42	Bull. 4, Surface water supply of Virginia (Potomac, Rappahannock, and York River Basins).	Virginia Conservation Commission.
Do.....	1927-42	Bull. 5, Surface water supply of Virginia (James River Basin).	Do.
Do.....	1927-42	Bull. 6, Surface water supply of Virginia (Roanoke and Chowan River Basins).	Do.
Do.....	1927-42	Bull. 7, Surface water supply of Virginia (New, Tennessee, and Big Sandy River Basins).	Do.
Washington...	1878-1933	Bull. 5, Monthly and yearly summaries of hydrometric 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.

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Connecticut, Idaho, Indiana, Kansas, 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, Rhode Island, 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 special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier noteworthy floods. The following list gives the numbers and titles of these reports:

Water-Supply Paper	Title
88	The Passaic flood of 1902.
92	The Passaic flood of 1903.
96	Destructive floods in the United States in 1903.
147	Destructive floods in the United States in 1904.
162	Destructive floods in the United States in 1905.
334	The Ohio Valley flood of March-April 1913.
426	Southern California floods of January 1916.
487	The Arkansas River flood of June 3-5, 1921.
488	The floods in central Texas in September 1921.
520-G	Some floods in the Rocky Mountain region.
636-C	The New England flood of November 1927.
771	Floods in the United States, magnitude and frequency.
773-E	The New York State flood of July 1935.
796-B	Flood on Republican and Kansas Rivers, May and June 1935.
796-C	Flood in La Canada Valley, Calif., January 1, 1934.
796-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.
966	Minor floods of 1938 in North Atlantic States.
967-A	Floods of September 1939 in Colorado River Basin below Boulder Dam.
967-B	Flood of July 5, 1939, in eastern Kentucky.
967-C	Flood of August 21, 1939, in town of Baldwin, Maine.
994	Cloudburst floods in Utah, 1850 to 1938.
997	Floods in Colorado.
1046	Texas floods of 1940.

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 1945 to September 1946 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 for many canals and ditches and occasional records for 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 in the Bear River Basin for the period 1943 to 1946 are also published by the Geological Survey in special annual investigational reports entitled "Bear River Hydrometric Data, Tri-State Investigations." These reports contain many diversion records and miscellaneous measurements not included in the annual water-supply papers.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Centerville Creek.	Centerville, Utah, near mouth of canyon.	1937-46	Intermountain Forest & Range Experiment Station.
City Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1946a	Salt Lake City.
Cottonwood Creek..	....do.....	1898-1946a	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.

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

Stream	Location	Period	Collected by
Donner Creek.....	Above Cold Creek, near Truckee, Calif.	1929-46	Federal Court Watermaster for Truckee River.
Do.....	Below Cold Creek, near Truckee, Calif.	1902-15 1928-46b	Do.
Emigration Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1946a	Salt Lake City.
Ephraim Creek.....	Near Ephraim, Utah.....	1914-46	Intermountain Forest & Range Experiment Station.
Farmington Creek.....	Near Farmington, Utah.....	1937-46	Do.
Honey Creek.....	Near Plush, Oreg.....	1909-15, 1921-22, 1930-46e	Oregon State engineer.
Little Cottonwood Creek.	Salt Lake City, Utah, near mouth of canyon.	1898-1946a	Salt Lake City.
Little Truckee River.	Above Boca Reservoir, near Boca, Calif.	1942-46	Washoe County Water Conservation District.
Do.....	Below Boca Reservoir, at Boca, Calif..	1942-46	Do.
Mill Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1946a	Salt Lake City.
Otter Creek Reservoir outlet.	Antimony, Utah, at former Geological Survey gaging station published as Otter Creek near Coyoto.	1920-46d	Sevier River water commissioner.
Parish Creek.....	Centerville, Utah, near mouth of canyon.	1937-46	Intermountain Forest & Range Experiment Station.
Parleys Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1946a	Salt Lake City.
Prosser Creek.....	Near Boca, Calif.....	1942-46	Federal Court Watermaster for Truckee River.
Sevier River.....	Delta, Utah, at former Geological Survey gaging station.	1920-46d	Sevier River water commissioner.
Truckee River.....	At Tahoe, Calif.....	1895-96 1900-46b	Federal Court Watermaster for Truckee River.
Do.....	At Farad, Calif.....	1938-46b	Truckee-Carson Irrigation District.
Do.....	At Vista, Nev.....	1899-1907e 1927-46	Federal Court Watermaster for Truckee River.
Do.....	At Derby Dam, Nev.....	1907-10e 1926-46	Do.
Do.....	At Pyramid Dam, Nev.....	1928-46	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 prior to 1944 published in water-supply papers by the Geological Survey.
d Published in the annual reports of Sevier River water commissioner.
e Published in water-supply papers by the Geological Survey.
Note.- Records here listed other than those cited in above notes have not been published.

COOPERATION

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

California: State Department of Public Works, C H. Purcell, director, and Edward Hyatt, State engineer; San Bernardino and Los Angeles Counties.

Idaho: State Department of Reclamation, M. R. Kulp, State reclamation engineer.

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.

Work in the Bear River Basin (exclusive of Malad Valley) was done under cooperative agreements with the State Department of Reclamation of Idaho, the Office of State Engineer of Utah, the Office of State Engineer of Wyoming, and the Bureau of Reclamation of the United States Department of the Interior.

Financial assistance was furnished by the Corps of Engineers, U. S. Army, for the operation of four gaging stations in Utah and one in California.

Assistance in collecting records was rendered by the following organizations:

California: Walker River Irrigation District.

Idaho: Bureau of Reclamation of the United States Department of the Interior.

Oregon: Fish and Wildlife Service of the United States Department of the Interior; Harney and Lake Counties.

Utah: Bureau of Reclamation of the United States Department of the Interior; 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 (until Feb. 12, 1946) succeeded by Carl G. Paulsen, and Joseph V. B. Wells, chief of the division of surface waters (after Sept. 17, 1946. 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, Carson River, and Truckee River Basins), H. D. McGlashan; in Idaho (except for stations in Bear River Basin operated in connection with Federal Power Commission projects), 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, Carson River, and Truckee River Basins in California and for stations in Bear River Basin in Idaho operated in connection with Federal Power Commission projects, M. T. Wilson; in Wyoming, Robert Follansbee.

The records were reviewed and the manuscript prepared for publication under the direction of B. J Peterson, hydraulic engineer in charge, and F. J. Flynn, associate 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 1946 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, 4,197.15 feet May 15, at Boat Harbor gage; minimum, 4,194.9 feet Oct. 1, at Midlake gage.

1851-1946: 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, 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 1945-46

Day	Boat Harbor	Midlake
Oct. 1	8.3	-3.1
15	8.25	-3.0
Nov. 1	8.35	-2.8
15	8.5	-2.6
Dec. 1	8.6	-2.5
15	8.7	-2.5
Jan. 1	8.85	-2.35
15	9.1	-2.20
Feb. 1	9.15	-2.0
15	9.2	-1.9
Mar. 1	9.3	-1.8
15	9.6	-1.5
Apr. 1	9.8	-1.3
15	10.05	-1.15
May 1	10.2	-1.0
15	10.3	-1.0
June 1	10.25	-.9
15	10.15	-1.10
July 1	9.95	-1.25
15	9.7	-1.50
Aug. 1	9.45	-1.75
15	9.2	-2.00
Sept. 1	8.95	-2.25
15	8.75	-2.50

Bear River near Utah-Wyoming State line

Location.- Water-stage recorder, lat. 40°58', long. 110°51', in SE¼ sec. 30, T. 3 N., R. 10 E., just downstream from West Fork and 2.8 miles upstream from Utah-Wyoming State line.

Drainage area.- 176 square miles.

Records available.- July 1942 to September 1946.

Extremes.- Maximum discharge during year, 1,540 second-feet June 5 (gage height, 3.56 feet); minimum recorded, 34 second-feet Sept. 27-30, but may have been less during period of ice effect.

1942-46: Maximum discharge, 1,760 second-feet June 26, 1944; maximum gage height, 3.73 feet June 22, 1945; minimum discharge, 20 second-feet Apr. 2, 1944, but may have been less during period of ice effect.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	68					57	554	387	263	71	48
2	60	62					55	535	392	247	68	55
3	58	64					51	628	548	231	60	47
4	57	60					50	785	879	220	57	43
5	55	66		*48			58	888	1,160	209	58	41
6	51	69					62	870	1,160	205	64	40
7	51	68					58	843	1,020	194	66	39
8	50	58				42	54	769	934	187	55	40
9	50						57	801	944	174	51	41
10	50						54	722	953	167	50	40
11	50						54	574	843	160	54	41
12	48						71	529	722	170	69	43
13	58				(*)		89	561	678	180	66	41
14	60						112	561	663	151	71	36
15	54	62					123	523	678	141	69	37
16	55		48		42		167	511	649	129	55	37
17	58						216	587	568	121	50	39
18	55						293	730	529	115	45	39
19	52						382	785	453	107	44	39
20	52			42		46	481	700	392	101	44	39
21	54						517	801	398	96	57	38
22	57					(*)	481	817	409	96	69	37
23	54						548	715	420	104	101	37
24	51						635	607	392	107	73	37
25	52						738	517	335	118	64	36
26	51	58				48	852	493	320	99	58	36
27	52					50	870	505	306	84	55	35
28	50	(*)				57	761	493	297	77	52	34
29	50				-	55	801	458	284	75	50	34
30	54				-	55	738	404	271	96	45	34
31	82	-			-	57	-	365	-	84	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,693	82	48	54.6	3,360
November	1,839	69	-	61.3	3,650
December	1,488	-	-	48	2,950
Calendar year 1945	63,984	999	-	175	126,900
January	1,356	-	-	43.7	2,690
February	1,176	-	-	42	2,330
March	1,416	-	-	45.7	2,810
April	9,485	870	50	316	18,810
May	19,631	888	365	633	38,940
June	17,984	1,160	271	599	35,670
July	4,502	263	75	145	8,930
August	1,835	101	44	59.2	3,640
September	1,183	55	34	39.4	2,350
Water year 1945-46	63,588	1,160	-	174	126,100

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 9 to Mar. 26 (no gage-height record Dec. 21 to Mar. 20; discharge computed on basis of 4 discharge measurements, weather records, and records for Rock Creek near Mountain Home).

Bear River at Millis, near Evanston, Wyo.

Location.- Water-stage recorder, lat. 41°14'15", long. 110°55'10", in NW¼ sec. 35, T. 15 N., R. 120 W., 2.9 miles southeast of Evanston and 4.6 miles downstream from Stowe Creek.

Records available.- October 1942 to September 1946 (discontinued).

Extremes.- Maximum discharge during year, 1,320 second-feet Apr. 27 (gage height, 3.95 feet); minimum daily, 0.3 second-foot Sept. 10.
1942-46: Maximum discharge, 2,000 second-feet June 2, 1943 (gage height, 4.85 feet); no flow Sept. 23-26, 1943.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	90	75	78	55	62	414	760	356	62	17	2.4
2	56	73	70	80	55	65	293	699	348	56	12	2.4
3	55	77	70	80	55	65	239	716	360	47	11	1.7
4	51	79	70	80	55	65	232	879	525	38	8.9	1.0
5	47	73	72	80	55	65	297	1,010	813	36	6.2	.9
6	47	73	76	*80	55	65	405	976	970	33	5.6	.9
7	51	83	80	80	55	65	374	950	963	28	6.7	.7
8	49	64	80	80	55	65	332	849	849	26	6.7	.6
9	46	73	80	80	55	65	340	904	789	19	4.5	.5
10	46	75	80	75	55	70	250	918	783	14	3.4	.3
11	47	75	70	70	55	75	236	738	732	11	3.1	.7
12	51	79	68	65	55	80	387	628	616	11	3.1	1.0
13	53	79	68	60	55	90	510	622	550	16	4.2	.9
14	60	87	68	58	*55	100	550	628	495	26	4.5	1.7
15	60	90	68	55	55	95	459	606	486	21	5.6	1.7
16	56	79	68	55	55	90	432	562	454	19	5.6	.9
17	56	83	68	55	55	85	477	578	410	16	3.8	.9
18	58	80	68	55	55	100	567	672	374	16	2.4	1.4
19	55	75	68	55	55	130	694	748	374	14	1.7	4.5
20	51	72	68	55	55	*220	777	677	301	12	1.4	5.6
21	55	70	68	55	55	200	885	699	253	12	1.0	7.2
22	62	70	68	55	55	180	743	743	239	12	3.8	8.4
23	60	70	68	55	55	166	743	748	236	13	8.9	10
24	49	72	68	55	55	151	837	754	232	16	16	10
25	47	75	70	55	55	140	996	611	181	20	9.4	10
26	47	78	70	55	60	135	1,120	515	135	19	8.9	9.4
27	46	80	70	55	60	154	1,210	495	114	16	7.8	8.9
28	47	*80	70	55	60	212	1,050	464	98	15	6.7	8.4
29	46	80	70	55	-	282	1,030	495	77	12	5.0	8.4
30	46	80	70	55	-	316	1,030	472	64	14	4.5	8.4
31	73	-	75	55	-	495	-	378	-	17	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,631	73	46	52.6	3,240
November	2,314	90	64	77.1	4,590
December	2,202	80	68	71.0	4,370
Calendar year 1945	71,481	1,070	16	196	141,800
January	1,981	80	55	63.9	3,930
February	1,555	60	55	55.5	3,080
March	4,148	495	62	134	8,230
April	17,909	1,210	232	597	35,520
May	21,494	1,010	378	693	42,630
June	13,177	970	64	439	26,140
July	687	62	11	22.2	1,360
August	192.2	17	1.0	6.20	381
September	119.8	10	.3	3.99	238
Water year 1945-46	67,410.0	1,210	.3	185	133,700

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 15, Nov. 18 to Mar. 22 (no gage-height record Nov. 19-24, Dec. 7 to Mar. 20; discharge computed on basis of 4 discharge measurements, weather records, and records for station near Evanston).

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 3½ miles northwest of Evanston.

Drainage area.- 645 square miles.

Records available.- October 1913 to September 1946.

Average discharge.- 33 years, 230 second-feet.

Extremes.- Maximum discharge during year, 1,440 second-feet Apr. 27 (gage height, 4.86 feet); no flow Sept. 10-17.
1913-46: 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, 1946.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	95	82	85	60	70	519	842	391	25	8.5	2.0
2	51	79	75	90	60	75	398	747	388	26	7.5	1.3
3	50	78	75	90	60	75	334	743	385	24	5.2	.9
4	50	81	75	90	60	75	293	855	522	22	4.9	.8
5	48	72	78	90	60	72	343	1,000	779	21	4.9	.8
6	48	72	82	*90	60	70	473	1,000	940	16	4.6	.6
7	49	83	85	90	60	*70	455	960	970	12	3.1	.3
8	48	67	85	90	60	70	414	887	869	13	2.5	.2
9	45	63	85	90	60	70	424	915	828	10	2.8	.1
10	43	67	85	85	60	80	343	1,000	815	9.5	2.0	0
11	45	67	80	75	60	100	293	855	752	9.0	1.4	0
12	48	76	72	70	60	110	398	688	648	9.0	1.0	0
13	49	74	72	65	60	120	545	648	578	9.5	.9	0
14	53	79	72	62	*60	130	656	640	512	11	1.0	0
15	54	85	72	60	60	120	593	632	483	11	1.6	0
16	54	93	72	60	60	110	556	593	455	9.5	1.4	0
17	57	89	72	60	60	100	586	586	408	8.5	1.4	0
18	60	85	72	60	60	130	656	652	369	9.5	1.3	.3
19	57	80	72	60	60	190	756	743	382	10	1.0	1.0
20	54	78	72	60	60	266	864	696	309	9.5	.9	1.6
21	54	75	72	60	60	242	965	692	254	7.5	1.2	2.5
22	60	75	72	60	60	*224	855	725	227	6.5	3.7	4.0
23	60	75	72	60	60	193	837	738	224	6.5	3.1	4.3
24	51	75	72	60	62	204	891	833	227	6.5	6.0	4.6
25	46	80	75	60	65	176	1,040	672	184	9.0	7.5	5.2
26	51	85	75	60	68	157	1,210	552	137	11	6.0	5.5
27	49	85	75	60	68	182	1,320	526	91	9.5	4.9	5.5
28	49	*85	75	60	68	290	1,170	497	54	8.5	4.3	5.5
29	48	85	75	60	-	382	1,120	530	37	8.0	4.3	5.5
30	50	85	75	60	-	408	1,080	522	27	8.0	3.1	6.0
31	64	-	80	60	-	563	-	438	-	7.0	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,598	64	43	51.5	3,170
November	2,368	95	63	78.9	4,700
December	2,353	85	72	75.9	4,670
Calendar year 1945	77,653	1,220	12	213	154,000
January	2,182	90	60	70.4	4,330
February	1,711	68	60	61.1	3,390
March	5,124	563	70	165	10,160
April	20,387	1,320	293	680	40,440
May	22,407	1,000	438	723	44,440
June	13,245	970	27	442	26,270
July	363	26	6.5	11.7	720
August	104.5	8.5	.9	3.37	207
September	58.5	6.0	0	1.95	116
Water year 1945-46	71,901.0	1,320	0	197	142,600

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 15, Nov. 18 to Mar. 18 (no gage-height record Jan. 29 to Feb. 13; discharge computed on basis of 4 discharge measurements and weather records).

Bear River near Woodruff, Utah

Location.- Water-stage recorder, lat. 41°31'25", long. 110°01'00", in SW¼ sec. 20, T. 18 N., R. 120 W., in Wyoming, 2.8 miles upstream from Wyoming-Utah State line and 7.6 miles east of Woodruff.

Records available.- April 1942 to September 1946.

Extremes.- Maximum discharge during year, 1,330 second-feet Apr. 28 (gage height, 3.83 feet); no flow Aug. 17 to Sept. 30.
1942-46: Maximum discharge, 1,860 second-feet May 18, 1944 (gage height, 4.26 feet); no flow at times in each year.

Remarks.- Records good except those for period of ice effect, which are fair. Many diversions above station for irrigation, including Chapman Canal which carries some water over a low divide for storage in Neponset Reservoir for irrigation in Saleratus Basin.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	86	100	100	65	80	558	1,010	368	22	2.8	
2	55	106	90	105	65	80	452	760	338	20	2.2	
3	54	92	85	105	65	80	346	673	318	19	2.0	
4	52	95	90	*105	65	80	298	738	330	18	1.5	
5	52	97	95	105	65	78	298	887	498	17	1.2	
6	49	90	100	105	65	75	381	955	715	14	1.1	
7	48	97	100	*105	65	75	408	921	854	11	.8	
8	49	103	100	105	65	*75	399	870	830	12	.8	
9	48	82	100	105	65	75	376	830	745	9.2	.6	
10	47	86	100	100	65	90	346	955	708	8.4	.5	
11	43	95	90	85	65	110	276	887	694	8.8	.3	
12	44	92	80	80	*65	120	298	701	621	7.0	.4	
13	48	106	80	75	65	130	427	585	536	5.5	.5	
14	51	95	80	72	65	140	541	580	467	5.0	.4	
15	52	108	80	70	*65	130	558	568	404	5.0	.2	
16	55	120	80	70	65	120	508	541	376	3.5	.1	
17	55	110	80	70	65	110	514	498	355	3.5	0	
18	57	100	*80	70	65	140	546	504	326	3.3	0	
19	64	98	80	70	65	200	627	574	326	2.6	0	
20	66	96	80	65	65	300	738	627	302	2.6	0	
21	66	95	80	65	65	270	854	563	233	2.4	0	
22	67	94	80	65	65	250	912	591	187	2.4	0	
23	71	92	80	65	65	220	782	652	157	2.4	0	
24	75	92	80	65	68	200	798	806	143	2.6	0	
25	66	95	80	65	70	180	896	708	138	2.6	0	
26	59	98	82	65	75	160	1,080	546	108	3.1	0	
27	64	100	85	65	75	250	1,200	488	86	2.6	0	
28	62	100	85	65	75	334	1,260	492	57	3.1	0	
29	60	*100	85	*65	-	390	1,120	488	35	3.1	0	
30	60	100	85	65	-	399	1,090	488	26	3.3	0	
31	67	-	90	65	-	488	-	437	-	3.3	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,761	75	43	56.8	3,490
November	2,920	120	82	97.3	5,790
December	2,682	100	80	86.5	5,320
Calendar year 1945	72,642	1,210	13	199	144,100
January	2,482	105	65	80.6	4,920
February	1,858	75	65	83.4	3,690
March	5,429	488	75	175	10,770
April	18,887	1,260	276	630	37,460
May	20,923	1,010	437	675	41,500
June	11,281	854	26	373	22,380
July	228.7	22	2.4	7.38	454
August	15.4	2.8	0	.50	31
September	0	0	0	0	0
Water year 1945-46	68,467.1	1,260	0	188	135,800

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 16 to Mar. 27 (no gage-height record Feb. 13 to Mar. 7; discharge computed on basis of 3 discharge measurements, weather records, records for auxiliary winter gage 8 miles downstream, and for station near Evanston).

Bear River near Randolph, Utah

Location.- Water-stage recorder, lat. 41°48', long. 111°06', in SE¼NE¼ sec. 7, T. 12 N., R. 8 E., 4.2 miles upstream from Twin Creek, 5.5 miles upstream from Utah-Wyoming State line, and 11 miles northeast of Randolph.

Records available.- December 1943 to September 1946.

Extremes.- Maximum discharge during year, 1,170 second-feet May 1 (gage height, 6.68 feet); minimum, 26 second-feet Sept. 21-23.
1943-46: Maximum discharge, 1,360 second-feet Apr. 8, 1944 (gage height, 7.00 feet); minimum daily, 23 second-feet Oct. 21, 25, 27-29, 1944.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	70	100	110	70	100	808	1,170	445	48	33	30
2	58	71	90	110	70	100	808	1,160	a390	47	32	30
3	59	72	85	110	70	100	757	1,130	a385	46	32	30
4	59	79	90	115	70	100	655	1,010	a360	46	32	30
5	58	79	95	115	75	100	575	868	254	46	37	29
6	57	82	100	120	75	100	565	880	234	44	34	29
7	56	88	105	120	75	*102	562	900	238	43	32	28
8	55	86	105	120	75	105	594	889	338	43	32	34
9	53	84	105	120	75	105	605	878	405	42	32	30
10	53	84	105	*120	75	110	567	848	419	41	32	28
11	52	84	100	110	75	130	536	802	389	40	32	28
12	51	85	80	90	75	150	511	697	348	38	32	28
13	52	85	80	90	75	170	494	610	372	38	32	28
14	50	90	82	90	78	180	549	531	367	36	32	28
15	50	100	85	90	80	190	610	459	321	37	31	28
16	51	115	85	90	80	250	655	431	267	37	32	27
17	53	100	85	85	80	450	655	417	233	36	31	28
18	54	98	85	85	80	500	644	354	200	35	31	28
19	53	96	80	85	*80	550	644	311	198	34	30	27
20	53	94	76	85	80	600	655	297	166	34	30	27
21	54	92	82	85	80	620	688	259	150	34	30	26
22	58	90	84	85	80	650	738	293	122	32	31	26
23	58	90	84	85	82	700	795	313	105	32	37	26
24	58	90	84	85	85	800	851	385	100	34	55	28
25	59	92	90	85	90	850	861	476	95	34	35	32
26	59	*96	90	75	90	900	861	583	86	38	33	32
27	59	98	90	75	90	930	906	531	72	33	32	33
28	60	98	90	75	100	*960	978	531	65	32	31	33
29	64	98	90	75	-	1,020	1,060	562	62	32	31	33
30	66	100	92	75	-	998	1,130	594	55	32	30	33
31	70	-	100	72	-	899	-	518	-	32	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,747	70	50	56.4	3,470
November	2,686	115	70	89.5	5,330
December	2,794	105	76	90.1	5,540
Calendar year 1945	51,749	752	49	142	102,600
January	2,932	120	72	94.6	5,820
February	2,210	100	70	78.9	4,380
March	13,519	1,020	100	436	26,810
April	21,317	1,130	494	711	42,280
May	19,687	1,170	259	635	39,050
June	7,241	445	55	241	14,360
July	1,176	48	32	37.9	2,330
August	1,016	55	30	32.8	2,020
September	877	34	26	29.2	1,740
Water year 1945-46	77,202	1,170	26	212	153,100

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for other Bear River stations and unpublished records of canal diversions.
Note.- Stage-discharge relation affected by ice Nov. 8 to Mar. 28 (no gage-height record Jan. 1-9, Feb. 12-18, Mar. 19-27).

Bear River at Border, Wyo.

Location.- Water-stage recorder, lat. 42°11', long. 111°03', in NE¼NE¼ 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 1946.

Extremes.- Maximum discharge during year, 2,020 second-feet May 1 (gage height, 7.04 feet); minimum daily, 142 second-feet Aug. 19, 20.
1943-46: Maximum discharge, 2,040 second-feet Apr. 8, 1942 (gage height; 6.89 feet); minimum daily, 30 second-feet Aug. 18-22, 1940.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	200	222	230	260	165	190	1,870	2,000	1,150	304	196	165
2	196	220	230	260	155	190	1,760	1,990	1,050	291	190	176
3	196	222	235	260	155	200	1,600	1,930	910	380	188	172
4	196	222	235	270	155	200	1,460	1,880	727	325	184	171
5	198	220	235	270	165	200	1,360	1,820	706	318	180	176
6	194	236	235	270	165	200	1,320	1,760	691	328	194	176
7	192	262	240	270	165	210	1,300	1,540	730	337	190	178
8	194	236	250	270	165	210	1,260	1,380	730	308	182	196
9	192	235	250	260	170	220	1,230	1,610	712	288	178	200
10	186	231	250	280	170	225	1,180	1,810	724	275	169	207
11	186	238	240	270	*170	*225	1,120	1,790	758	264	169	203
12	171	231	200	240	160	220	1,070	1,690	751	260	167	188
13	174	236	190	200	160	230	1,060	1,550	748	258	169	188
14	171	250	190	*200	160	230	1,100	1,390	737	244	171	184
15	165	280	210	200	170	250	1,170	1,220	715	233	163	184
16	165	*300	210	200	180	300	1,270	1,020	682	227	160	180
17	172	275	210	190	180	300	1,350	946	655	214	153	186
18	176	262	210	190	180	400	1,420	930	598	198	151	186
19	184	262	200	200	*170	600	1,480	930	604	188	142	186
20	184	255	190	200	170	700	1,600	930	562	178	142	186
21	184	240	*185	200	180	800	1,720	894	520	167	144	184
22	184	230	190	180	185	800	1,780	842	495	156	148	180
23	182	220	200	180	185	860	1,770	832	452	165	160	176
24	186	215	200	190	195	900	1,770	838	445	163	165	186
25	186	215	200	190	195	920	1,810	824	438	163	167	184
26	192	225	220	170	190	1,250	1,870	878	412	203	203	178
27	192	230	220	165	190	1,400	1,930	966	383	233	180	174
28	192	230	220	165	190	1,500	1,950	1,050	366	240	169	176
29	190	230	220	*165	-	*1,580	1,950	1,140	342	222	169	178
30	186	230	220	165	-	1,720	1,960	1,220	318	218	165	174
31	209	-	220	165	-	1,850	-	1,210	-	207	162	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,775	209	165	186	11,450
November	7,160	300	215	239	14,200
December	6,735	250	185	217	13,360
Calendar year 1945	121,611	1,370	105	333	241,200
January	6,695	280	165	216	13,280
February	4,840	195	155	173	9,600
March	19,080	1,850	190	615	37,840
April	45,490	1,960	1,060	1,516	90,230
May	40,810	2,000	824	1,316	80,950
June	19,111	1,150	318	637	37,910
July	7,555	380	156	244	14,990
August	5,270	203	142	170	10,450
September	5,478	207	171	183	10,870
Water year 1945-46	173,999	2,000	142	477	345,100

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 9, 14-17, Nov. 20 to Mar. 26 (no gage-height record Feb. 9 to Mar. 10); discharge computed on basis of 6 discharge measurements and records for station at Harer).

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.- 2,780 square miles.

Records available.- June 1913 to September 1916, January 1919 to September 1946.

Average discharge.- 30 years, 501 second-feet.

Extremes.- Maximum daily discharge during year, 2,680 second-feet May 2; minimum daily, 185 second-feet Aug. 21, 22.
1913-16, 1919-46: 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 periods 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. Nine discharge measurements were made by Geological Survey and two by watermaster, District No. 5, in addition to those made by power company.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	246	265	285	270	195	220	2,100	2,670	1,470	364	262	204
2	244	285	285	280	200	220	2,060	2,680	1,370	355	258	204
3	241	295	280	285	205	220	1,930	2,650	1,250	380	250	204
4	238	300	280	290	*205	220	1,800	2,560	1,020	412	246	210
5	238	300	260	295	205	225	1,660	2,500	871	376	241	212
6	244	300	265	305	205	225	1,530	2,410	841	370	241	212
7	240	325	285	300	205	230	1,510	2,280	841	396	243	214
8	235	*324	270	300	210	230	1,470	1,950	892	396	243	225
9	230	305	290	300	205	230	1,420	1,990	862	352	238	232
10	225	305	225	270	205	235	1,380	2,260	837	332	234	234
11	225	335	*214	255	205	235	1,310	2,360	820	320	225	238
12	225	335	230	260	205	250	1,250	2,310	862	312	221	234
13	225	330	225	260	200	255	1,240	2,170	850	307	221	225
14	225	300	245	230	*200	280	1,260	1,980	846	301	221	241
15	210	225	230	220	200	310	1,320	1,750	837	293	218	232
16	210	345	225	215	205	365	1,420	1,490	787	282	214	225
17	210	375	220	220	205	520	1,550	1,330	757	285	210	225
18	220	350	225	225	200	630	1,670	1,260	720	280	204	225
19	225	315	225	220	200	755	1,770	1,240	703	278	199	225
20	235	295	210	220	210	810	1,900	1,220	690	272	189	223
21	240	260	*208	210	210	835	2,100	1,180	628	268	185	223
22	240	245	220	210	210	920	2,300	1,110	572	262	185	221
23	240	*278	195	210	215	1,020	2,380	1,110	526	258	195	218
24	250	285	225	210	215	1,170	2,360	1,170	500	258	206	218
25	250	290	230	215	210	1,340	2,380	1,140	496	253	204	225
26	250	305	225	220	220	1,520	2,460	1,140	470	248	218	223
27	250	305	220	210	220	2,200	2,540	1,240	442	282	227	218
28	250	285	220	210	220	2,500	2,620	1,320	415	293	212	216
29	250	270	245	210	-	1,650	2,650	1,440	392	293	204	216
30	250	285	270	205	-	1,820	2,660	1,490	386	280	206	218
31	255	-	275	200	-	2,030	-	1,530	-	275	204	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,316	255	210	236	14,510
November	9,017	375	225	301	17,880
December	7,507	290	195	242	14,890
Calendar year 1945	150,113	1,680	130	411	297,700
January	7,530	305	200	243	14,940
February	5,790	220	195	207	11,480
March	23,670	2,500	220	764	46,950
April	56,000	2,660	1,240	1,867	111,100
May	54,930	2,680	1,110	1,772	109,000
June	22,953	1,470	386	765	45,530
July	9,633	412	248	311	19,110
August	6,824	262	185	220	13,540
September	6,640	241	204	221	13,170
Water year 1945-46	217,810	2,680	185	597	432,100

* Winter discharge measurement made on this day.

Note.- No gage-height record Oct. 7 to Mar. 29, Apr. 3-5; discharge computed on basis of records for Rainbow inlet canal near Dingle, Dingle inlet canal, and Bear River below Stewart Dam, near Montpelier.

Bear River below Stewart Dam, near Montpelier, Idaho

Location.- Staff gage, lat. 42°15'30", long. 111°17'30", in NE¼ sec. 34, T. 13 S., R. 44 E., 300 feet downstream from Stewart Dam and 4½ miles south of Montpelier.

Records available.- October 1945 to September 1946. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Average discharge.- 24 years, 90.3 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 162 second-feet Dec. 22; minimum daily, 7 second-feet on several days.
1923-46: Maximum daily discharge, 3,050 second-feet June 3, 1923; minimum daily, 1 second-foot on several days in 1931, 1934, 1940.

Remarks.- Records fair. Many diversions above station for irrigation. Flow regulated at Stewart Dam.

Cooperation.- Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. One discharge measurement made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	9	a10	a10	7	7	9	14	18	21	22	a22
2	23	10	a10	10	7	7	9	15	a18	21	22	a22
3	a23	a10	a10	10	a7	a8	9	15	17	24	22	222
4	23	10	a10	10	7	8	9	15	17	a24	a22	22
5	26	10	10	10	7	8	8	15	14	24	22	22
6	26	10	10	a10	7	8	8	15	19	24	22	22
7	a26	10	10	10	7	8	7	15	18	22	22	22
8	25	11	10	10	7	8	7	14	18	22	22	a22
9	26	11	10	10	8	8	7	13	a18	22	22	22
10	25	11	10	10	a8	a8	7	13	19	22	22	22
11	25	11	9	10	7	8	7	15	19	22	a22	22
12	25	11	9	9	8	8	7	16	20	22	22	22
13	25	11	9	a9	8	8	7	16	20	22	22	22
14	25	11	42	9	7	9	7	15	20	a22	22	22
15	a24	9	98	9	8	9	7	15	20	22	22	a22
16	24	a10	98	8	7	9	7	14	20	22	22	22
17	24	11	106	8	a7	a10	7	16	21	22	22	22
18	a24	9	133	8	7	10	8	16	20	22	a22	22
19	25	7	161	8	7	10	9	15	20	22	22	22
20	26	11	152	a8	7	10	9	15	20	22	22	22
21	25	11	150	7	7	10	11	17	21	a22	22	20
22	25	11	162	7	a7	10	13	18	21	22	22	a20
23	26	10	a101	7	7	10	13	16	a20	22	21	20
24	26	10	15	7	a7	a10	13	14	20	a22	21	20
25	18	10	a15	7	7	10	13	18	20	22	a20	20
26	10	10	9	7	7	14	13	a18	20	22	20	20
27	9	9	7	a7	7	9	13	18	20	22	21	19
28	9	10	7	7	8	11	13	19	20	a22	21	18
29	10	10	7	7	-	16	14	19	24	22	22	a18
30	9	10	a8	7	-	9	14	18	20	22	22	18
31	a9	-	8	7	-	9	-	18	-	22	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	669	26	9	21.6	1,330
November	304	11	7	10.1	603
December	1,406	162	7	45.4	2,790
Calendar year 1945	10,954	286	7	30	21,730
January	263	10	7	8.5	522
February	202	8	7	7.2	401
March	287	16	7	9.3	569
April	285	14	7	9.5	565
May	490	19	13	15.8	972
June	582	24	14	19.4	1,150
July	688	24	21	22.2	1,360
August	674	22	20	21.7	1,340
September	633	22	18	21.1	1,260
Water year 1945-46	6,483	162	7	17.8	12,860

a No gage-height record; discharge interpolated.

Bear River at Pescadero, Idaho

Location.- Water-stage recorder, lat. 42°24'30", long. 111°21'30", in SE¼ sec. 6, T. 12 S., R. 44 E., at Pescadero, 400 feet downstream from road bridge and 1½ miles upstream from Pine Creek.

Records available.- October 1945 to September 1946. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Average discharge.- 24 years, 482 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 1,210 second-feet July 26; minimum daily, 50 second-feet Feb. 3-11.
1922-46: Maximum daily discharge, 3,840 second-feet June 10, 1923; minimum daily, 23 second-feet Mar. 14-17, 1936.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation. Flow regulated by Bear Lake Reservoir.

Cooperation.- Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. Eight discharge measurements made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	167	110	100	110	55	85	740	525	425	652	800	441
2	176	114	85	110	55	85	770	530	415	666	870	425
3	175	115	90	*111	50	85	750	510	410	680	930	418
4	175	112	95	110	50	90	*616	485	375	731	950	580
5	170	108	*93	110	50	90	616	465	330	760	956	731
6	170	105	110	110	50	90	638	445	285	802	950	831
7	170	100	100	105	50	95	643	430	255	807	945	745
8	169	100	100	100	50	100	638	440	240	802	950	694
9	169	*108	90	95	50	105	694	437	225	817	1,020	689
10	121	110	75	90	50	110	841	482	215	778	1,000	769
11	92	105	110	85	50	115	694	494	380	774	971	797
12	92	105	90	80	*52	120	612	503	655	774	961	793
13	98	105	90	80	55	125	576	473	835	890	971	558
14	99	90	100	75	55	130	545	445	885	900	966	429
15	100	95	105	75	55	130	528	425	890	895	1,030	422
16	103	130	150	75	55	130	555	402	880	1,020	1,050	418
17	109	120	210	75	60	130	565	380	870	1,040	1,050	563
18	110	105	225	75	60	130	590	368	920	1,040	1,050	607
19	108	100	230	75	65	140	615	340	988	1,060	1,050	494
20	114	95	230	75	65	160	635	318	986	1,100	1,040	453
21	121	75	230	75	*68	170	635	445	900	1,130	1,050	445
22	121	95	235	75	70	180	620	621	797	1,150	1,050	425
23	120	90	240	70	70	190	590	675	769	1,160	1,070	429
24	116	105	240	70	75	190	565	700	741	1,160	1,100	433
25	112	105	170	70	75	200	550	610	708	1,190	1,120	437
26	105	120	105	70	80	210	535	540	708	1,210	643	453
27	99	110	100	65	80	260	540	505	708	1,180	778	445
28	99	105	105	65	80	360	540	440	689	1,150	925	433
29	99	110	125	60	-	440	535	440	666	1,040	865	437
30	99	110	120	60	-	560	520	445	657	830	675	437
31	105	-	110	55	-	730	-	440	-	745	498	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,883	176	92	125	7,700
November	3,157	130	75	105	6,260
December	4,258	240	75	137	8,450
Calendar year 1945	101,215	1,060	65	277	200,300
January	2,556	111	55	82.5	5,070
February	1,680	80	50	60.0	3,330
March	5,735	730	85	185	11,380
April	18,491	841	520	616	36,680
May	14,758	700	318	476	29,270
June	18,807	988	215	627	37,300
July	28,933	1,210	652	933	57,390
August	29,284	1,120	498	945	58,080
September	16,231	831	418	541	32,190
Water year 1945-46	147,773	1,210	50	405	293,100

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 7 to Mar. 13. No gage-height record Oct. 2-7, Mar. 14 to Apr. 4, Apr. 16 to May 8, May 16, 17, May 21 to June 19, July 29 to Aug. 2; discharge computed on basis of records for Bear River below Stewart Dam, near Montpelier, Bear River at Alexander, Bear Lake Outlet Canal near Paris, and Soda Reservoir elevations.

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 1946.

Average discharge.- 31 years (1911-16, 1919-20, 1921-46), 728 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 1,350 second-feet Apr. 8; minimum daily, 64 second-feet Jan. 20.
1911-16, 1919-46: 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. Many diversions above station for irrigation. Flow regulated by Bear Lake Reservoir and Soda hydroelectric plant.

Cooperation.- Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. Two discharge measurements made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	440	360	233	89	182	a390	746	553	678	925	1,200	504
2	354	266	204	236	199	a330	746	488	631	1,030	1,140	632
3	367	197	323	263	74	a310	679	638	896	994	a770	1,070
4	322	192	339	353	348	a525	968	1,040	605	469	a400	1,050
5	275	365	365	240	274	a470	926	868	697	594	a990	937
6	208	344	306	66	284	a475	994	762	703	620	a1,170	934
7	119	349	363	336	245	a460	1,310	699	573	556	1,110	711
8	333	331	164	304	264	517	1,350	770	486	944	a1,090	374
9	376	285	124	274	262	283	1,270	979	470	973	a1,140	858
10	350	150	417	328	125	421	1,290	875	839	1,020	a765	762
11	333	319	385	293	253	256	1,300	794	835	1,190	a540	752
12	290	374	412	274	274	290	1,120	862	892	1,170	a1,120	852
13	223	286	367	97	318	271	1,100	1,030	706	1,010	a1,130	752
14	102	338	477	322	305	345	930	1,020	774	742	a1,110	624
15	373	396	346	440	304	400	845	887	650	1,220	a1,220	403
16	330	379	134	436	248	297	856	857	488	1,130	a1,140	932
17	324	191	383	367	172	136	897	959	1,070	1,220	a1,100	898
18	371	72	526	261	a370	359	934	863	1,020	1,240	a855	797
19	265	348	461	267	a415	323	1,010	502	1,010	1,180	a1,160	622
20	116	267	620	64	a355	454	996	733	1,010	911	a1,240	615
21	161	291	545	310	a380	449	1,080	648	896	666	a1,190	578
22	264	108	392	349	a210	449	1,040	798	825	1,110	1,180	415
23	243	374	172	252	a430	513	979	931	499	1,170	1,080	879
24	290	296	103	276	a265	334	990	684	912	815	778	725
25	245	187	107	132	a475	611	1,170	592	872	1,100	676	550
26	361	537	228	131	a400	509	1,060	535	942	994	1,000	466
27	260	314	224	84	a390	631	996	795	967	530	1,040	547
28	139	336	251	165	a355	667	996	894	973	823	1,010	404
29	284	366	238	256	-	734	1,010	835	850	1,150	934	174
30	273	450	207	254	-	737	1,010	642	536	1,170	818	616
31	325	-	218	230	-	622	-	847	-	1,010	645	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,714	440	102	281	17,280
November	9,068	537	72	302	17,990
December	9,634	620	103	311	19,110
Calendar year 1945	166,837	1,250	68	457	330,900
January	7,747	440	64	250	15,370
February	8,174	475	74	292	16,210
March	15,568	737	136	438	26,910
April	30,598	1,350	679	1,020	60,690
May	24,380	1,040	488	786	48,360
June	23,325	1,070	470	778	46,260
July	29,656	1,240	469	957	58,820
August	30,741	1,240	400	992	60,970
September	20,433	1,070	174	681	40,530
Water year 1945-46	216,038	1,350	64	592	428,500

a No gage-height record; discharge computed on basis of output of hydroelectric power plant 600 feet above station

Bear River below Grace Dam, near Grace, Idaho

Location.- Water-stage recorder, lat. 42°35'30", long. 111°43'30", in NW¼ sec. 1, T. 10 S., R. 40 E., 1,000 feet downstream from Grace Dam and 1 mile north of Grace.

Records available.- October 1945 to September 1946. April 1922 to November 1923 (fragmentary); March 1924 to September 1945 in files of Salt Lake City district office, Geological Survey.

Average discharge.- 22 years, 53.7 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 1,080 second-feet Apr. 7; minimum daily, 1 second-foot Mar. 14-18.
1922-46: Maximum daily discharge, 3,920 second-feet Apr. 30, 1922; no flow at times in several years.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Most of river flow is diverted at dam into pipe line and carried to Grace hydroelectric plant about 5 miles downstream, where it is returned to river. Records do not include flow passing through Grace hydroelectric plant.

Cooperation.- Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. One discharge measurement made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	8	6	7	7	13	60	263	107	27	20	24
2	6	14	4	11	8	43	60	32	231	26	21	22
3	4	11	9	10	19	12	80	77	139	20	26	24
4	9	10	5	9	9	7	540	753	11	20	29	32
5	11	14	7	12	8	8	380	872	10	23	25	26
6	13	16	10	6	8	6	520	300	12	23	24	26
7	14	10	9	7	9	8	1,080	260	23	24	22	25
8	10	6	7	13	9	10	940	177	25	21	23	26
9	16	9	7	10	4	9	761	243	22	20	22	30
10	16	19	7	8	20	6	860	336	24	17	24	24
11	8	30	5	6	7	4	865	455	28	6	26	24
12	7	18	4	6	7	3	807	694	28	7	22	23
13	8	28	6	10	9	2	960	300	30	7	23	29
14	7	8	4	6	8	1	977	293	28	7	21	28
15	7	10	6	3	12	1	404	97	28	9	20	29
16	20	9	8	4	12	1	340	12	30	6	20	28
17	22	7	8	8	11	1	417	13	27	7	22	24
18	21	16	4	6	9	1	481	16	28	6	20	23
19	8	7	7	5	12	2	675	15	28	8	26	22
20	13	7	7	10	12	2	871	24	26	9	26	22
21	7	5	6	4	8	2	1,060	24	26	7	23	20
22	14	4	6	5	12	2	667	17	24	9	27	20
23	11	9	17	8	9	2	674	23	31	7	26	20
24	9	5	15	6	20	2	748	14	24	4	26	22
25	10	7	11	12	66	2	925	17	28	10	26	20
26	9	4	12	12	10	2	803	16	25	22	26	23
27	13	12	13	20	17	2	777	22	24	20	26	21
28	22	7	6	15	10	40	964	33	26	21	26	22
29	18	5	12	8	-	80	672	34	26	20	26	18
30	14	3	41	9	-	50	464	154	30	29	30	20
31	5	-	8	8	-	50	-	162	-	21	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	357	22	4	11.5	708
November	318	30	3	10.6	631
December	277	41	4	8.9	549
Calendar year 1945	9,603	780	2	23.3	19,050
January	264	20	3	8.5	524
February	352	66	4	12.6	698
March	374	80	1	12.1	742
April	19,832	1,080	60	661	39,340
May	5,748	872	12	185	11,400
June	1,149	231	10	38.3	2,280
July	457	29	4	14.7	906
August	750	30	20	24.2	1,490
September	717	32	18	23.9	1,420
Water year 1945-46	30,595	1,080	1	83.8	60,680

Note.- No gage-height record Dec. 13, 14, Jan. 13-22, Jan. 26 to Feb. 17, Mar. 20 to Apr. 8, Aug. 15, 16; discharge computed on basis of records at Alexander, and records of power and irrigation diversions between stations.

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

Location.- Water-stage recorder, lat. 42°16', long. 111°45', in sec. 26, T. 13 S., R. 40 E., 200 feet below tailrace of Oneida plant and 6 miles south of Cleveland, Idaho.

Records available.- October 1945 to September 1946. January 1922 to September 1945 in files of Salt Lake City District office, Geological Survey.

Average discharge.- 24 years, 703 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 2,360 second-feet Apr. 8; minimum daily, 35 second-feet Jan. 27.
1922-46: Maximum daily discharge, 5,480 second-feet May 8, 1922; minimum daily, 15 second-feet May 3, 4, 1925.

Remarks.- Records excellent. Many diversions above station. Flow regulated by Bear Lake Reservoir and Soda, Grace, and Oneida hydroelectric plants.

Cooperation.- Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. Three discharge measurements made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	353	280	329	118	302	515	1,400	975	687	1,200	1,280	674
2	744	649	409	683	453	544	1,070	1,320	174	800	1,060	896
3	657	286	694	601	66	831	887	775	647	755	459	643
4	619	95	716	459	552	640	1,070	1,010	1,220	266	399	721
5	536	333	379	152	425	396	1,440	1,180	742	457	891	983
6	798	592	619	38	518	786	1,610	1,360	532	494	1,240	976
7	255	731	1,000	360	482	442	1,180	1,400	474	328	1,050	1,220
8	574	638	454	227	536	293	2,360	1,110	341	764	1,170	463
9	618	403	142	451	258	588	2,280	1,160	42	1,020	808	601
10	652	383	514	429	165	321	1,700	933	723	1,120	449	860
11	399	412	531	710	491	712	1,210	1,050	557	936	332	881
12	459	639	367	329	458	636	1,810	978	401	754	1,150	896
13	467	527	565	228	660	1,080	1,780	778	706	362	1,130	1,030
14	324	577	482	383	601	638	1,490	1,240	563	464	1,270	700
15	300	955	406	515	525	263	1,390	1,083	374	889	1,000	310
16	590	365	293	512	570	620	2,000	1,200	44	805	900	919
17	638	371	616	891	356	539	1,710	1,160	572	780	869	858
18	742	336	694	659	335	455	1,700	1,270	889	931	543	700
19	396	643	779	362	630	676	1,850	77	834	1,030	1,190	1,150
20	297	475	927	93	365	871	1,830	803	854	833	1,340	983
21	115	602	619	504	522	660	1,510	694	1,200	891	1,060	691
22	670	236	366	786	477	1,050	2,130	599	688	809	802	331
23	471	467	640	379	489	579	2,080	509	285	933	1,290	870
24	530	692	442	406	165	368	1,700	454	600	498	1,310	606
25	598	168	57	505	362	613	1,800	467	472	819	1,070	1,030
26	525	551	399	302	535	871	1,810	37	677	749	675	726
27	420	637	550	55	609	772	1,710	403	758	809	969	763
28	214	545	828	428	697	921	1,250	1,010	961	661	786	524
29	817	511	738	543	-	1,230	2,340	556	335	920	1,080	88
30	599	896	397	271	-	1,180	1,140	511	474	1,060	1,160	824
31	658	-	1,100	422	-	1,240	-	960	-	1,310	927	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	16,035	817	115	517	31,800
November	14,995	955	95	500	29,740
December	17,052	1,100	57	550	33,820
Calendar year 1945	221,207	2,010	49	606	438,700
January	12,761	891	35	412	25,310
February	12,604	697	66	450	25,000
March	21,330	1,240	263	688	42,310
April	49,237	2,360	887	1,641	97,660
May	27,062	1,400	37	873	53,680
June	17,824	1,220	42	594	35,350
July	24,447	1,310	266	789	48,490
August	29,659	1,340	332	957	58,830
September	22,917	1,220	88	764	45,460
Water year 1945-46	265,923	2,360	35	729	527,400

Bear River near Preston, Idaho

Location.- Water-stage recorder, lat. 42°10', long. 111°51', in NW¼ sec. 36, T. 14 S., R. 39 E., 600 feet downstream from head gates of West Cache Canal, 5 miles downstream from Mink Creek, 5 miles north of Preston, and 5½ miles upstream from Battle Creek.

Drainage area.- 4,500 square miles.

Records available.- January 1944 to September 1946. October 1889 to September 1917 (gage heights only January to September 1917) at site 5 miles downstream; records comparable.

Extremes.- Maximum discharge during year, 3,940 second-feet (regulated) Apr. 21, 29 (gage height, 5.47 feet); minimum daily, 130 second-feet (regulated) Jan. 27; minimum, 7.5 second-feet (regulated) June 29 (gage height, 0.78 foot).

1889-1916, 1944-46: Maximum discharge, about 8,500 second-feet June 9, 10, 1907, estimated on basis of records for station near Collinston, Utah; maximum gage height observed, 9.04 feet Jan. 17, 18, 1917 (affected by ice), site and datum then in use; minimum daily, 14 second-feet (regulated) July 4, 1944, July 4, 1945; minimum, 0.8 second-foot (regulated) July 5, 1945 (gage height, 0.68 foot).

Remarks.- Records good. Station is below all irrigation diversions from Bear River in Idaho except Cub River pumps in SE¼ sec. 20, T. 16 S., R. 39 E. Flow regulated by storage in Bear Lake Reservoir and by power plants above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	447	364	329	329	365	590	1,590	1,320	748	1,140	1,480	666
2	578	622	447	688	490	561	1,230	1,460	416	686	882	870
3	713	294	718	678	160	929	1,000	1,110	725	624	427	622
4	614	164	796	530	605	716	1,120	1,190	1,210	220	421	651
5	462	321	394	220	510	461	1,530	1,210	882	262	871	824
6	768	610	576	140	580	812	1,770	1,750	660	362	1,130	1,070
7	412	670	1,060	430	453	518	1,310	1,600	549	225	1,130	1,160
8	568	699	481	295	667	382	2,420	1,280	338	617	1,080	547
9	571	394	196	515	346	438	2,370	1,390	221	914	756	539
10	540	415	584	505	193	499	1,970	1,120	671	1,030	475	701
11	576	419	480	765	568	725	1,400	1,170	676	863	245	851
12	449	588	396	380	487	699	1,960	1,190	355	762	1,040	814
13	496	620	535	325	715	1,220	2,050	1,020	677	249	1,110	887
14	422	640	574	485	672	792	1,780	1,310	524	336	1,240	718
15	279	873	427	580	583	395	1,730	1,120	413	793	1,100	296
16	473	552	396	570	545	546	2,190	1,290	151	679	795	782
17	602	474	711	955	513	672	1,940	1,200	522	662	898	843
18	730	360	732	680	386	522	1,950	1,260	642	823	947	734
19	549	682	761	475	628	718	2,170	285	775	928	1,080	1,120
20	264	463	1,070	180	384	1,030	2,140	710	828	737	1,330	924
21	292	592	700	575	589	730	1,820	755	1,060	837	999	675
22	394	364	423	775	539	1,150	2,440	701	843	706	797	419
23	700	552	560	455	505	638	2,330	649	367	806	1,100	820
24	488	588	601	480	288	383	1,850	521	643	607	1,240	514
25	406	377	166	570	412	682	2,120	714	371	765	1,180	1,090
26	662	652	434	365	604	920	2,130	266	528	681	610	709
27	346	602	573	130	663	852	1,980	477	578	761	953	792
28	434	574	888	520	843	1,060	1,650	1,080	807	374	801	555
29	956	529	852	610	-	1,460	2,640	754	232	785	1,060	135
30	644	916	445	340	-	1,340	1,600	637	300	1,190	1,190	726
31	726	-	1,110	495	-	1,540	-	1,090	-	991	883	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	16,561	956	264	534	32,850
November	15,970	916	164	532	31,680
December	18,415	1,110	166	594	36,530
Calendar year 1945	230,033	2,250	14	630	456,300
January	15,040	955	130	485	29,830
February	14,293	843	160	510	28,350
March	23,980	1,540	382	774	47,560
April	56,180	2,640	1,000	1,873	111,400
May	31,629	1,750	266	1,020	62,740
June	17,712	1,210	151	590	35,130
July	21,415	1,190	220	691	42,480
August	28,850	1,480	245	931	57,220
September	22,054	1,160	135	735	43,740
Water year 1945-46	282,099	2,640	130	773	559,510

Note.- No gage-height record Jan. 4 to Feb. 6; discharge computed on basis of records for station at Oneida.

Bear River near Collinston, Utah

Location.- Water-stage recorder, lat. 41°50', long. 112°03', in NW¼SE¼ 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 1946.

Extremes.- Maximum discharge during year, 7,160 second-feet (regulated) Apr. 21 (gage height, 7.00 feet); minimum daily, 24 second-feet (regulated) Dec. 2.
1889-1946: 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 12 p.m. Aug. 5, 1920.

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

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	882	1,520	842	3,030	1,150	1,870	3,290	4,720	3,700	545	821	337
2	333	1,710	24	2,510	881	2,370	2,770	4,740	2,520	406	657	289
3	a650	1,070	1,540	2,060	104	2,250	3,410	4,710	1,950	58	612	651
4	a880	506	1,750	2,160	1,300	1,430	2,760	4,000	1,880	34	985	748
5	1,040	1,090	1,570	2,440	1,460	1,820	3,320	3,530	2,420	33	274	346
6	631	1,250	1,690	1,070	1,440	1,940	3,700	3,620	2,190	37	482	175
7	327	1,220	1,470	1,880	1,320	1,660	3,410	2,550	2,560	43	212	268
8	816	1,140	1,260	1,390	1,090	1,210	3,290	2,610	2,560	101	588	405
9	764	1,940	236	1,530	1,040	724	3,500	2,460	521	140	635	a910
10	868	1,560	1,800	1,500	273	678	3,690	2,790	1,550	58	30	a1,010
11	990	940	1,840	1,450	964	2,050	3,690	3,330	1,060	30	31	887
12	997	1,460	1,710	1,170	1,310	2,530	3,700	3,200	1,140	31	610	940
13	742	1,200	1,380	70	1,290	3,050	3,650	2,720	1,440	31	452	718
14	470	1,490	1,030	1,600	1,470	5,190	3,280	3,580	1,300	34	192	625
15	910	2,120	758	1,090	1,340	4,890	3,450	2,740	490	29	303	29
16	1,020	2,180	140	1,140	800	4,470	3,610	2,490	155	28	686	912
17	750	904	1,930	958	1,230	3,760	3,690	a1,990	218	29	313	839
18	1,270	990	1,320	1,380	1,110	1,980	3,970	a1,810	150	30	350	451
19	705	1,630	484	1,040	1,560	2,630	4,950	a530	256	30	509	1,210
20	324	1,870	495	238	1,250	2,450	5,880	a1,600	422	30	482	1,360
21	26	1,880	1,070	1,530	1,190	2,490	5,890	a1,530	977	31	482	1,330
22	510	818	632	1,740	1,290	2,340	6,530	a1,280	818	37	662	272
23	980	1,780	870	1,130	1,490	2,380	6,170	1,130	42	31	352	1,050
24	1,170	1,140	a1,830	1,140	931	3,360	5,970	840	518	31	553	1,140
25	1,770	683	a1,770	1,490	1,400	3,120	5,610	1,190	618	58	545	784
26	910	1,590	a1,380	912	1,660	2,340	5,620	1,160	325	52	736	645
27	720	1,760	2,240	124	1,140	2,030	5,640	2,190	367	695	875	641
28	26	1,790	2,280	1,690	1,820	1,960	5,530	2,550	256	101	454	1,020
29	906	1,580	a2,310	1,590	-	2,340	5,320	2,470	79	396	553	355
30	740	1,240	2,190	1,350	-	2,260	5,240	2,610	64	282	1,660	930
31	1,050	-	3,540	1,270	-	2,750	-	3,700	-	647	1,640	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	24,177	1,770	26	780	47,950
November	42,051	2,180	506	1,402	83,410
December	43,381	3,540	24	1,399	86,040
Calendar year 1945	459,874	5,030	22	1,260	912,200
January	43,672	3,030	70	1,409	86,620
February	33,303	1,820	104	1,189	66,060
March	76,322	5,190	678	2,462	151,400
April	130,530	6,530	2,760	4,351	258,900
May	80,370	4,740	530	2,593	159,400
June	32,546	3,700	42	1,085	64,550
July	4,119	695	28	133	8,170
August	17,736	1,660	30	572	35,180
September	21,277	1,360	29	709	42,200
Wster year 1945-46	549,484	6,530	24	1,505	1,090,000

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

Mill Creek near Evanston, Wyo.

Location.- Water-stage recorder, lat. 41°00', long. 110°52', in NW¼ sec. 20, T. 12 N., R. 119 W., 1.8 miles downstream from Utah-Wyoming State line and 18.8 miles south of Evanston.

Records available.- July 1942 to September 1946.

Extremes.- Maximum discharge during year, 292 second-feet Apr. 18 (gage height, 3.20 feet), from rating curve extended above 140 second-feet; minimum, 2 second-feet Oct. 24 to Nov. 28 (field estimate) when water was diverted above station to permit construction in stream channel.
1942-46: Maximum discharge, that of Apr. 18, 1946; minimum, that of Oct. 24 to Nov. 28, 1945.

Remarks.- Records good except those during periods of ice effect or no gage-height record, which are fair. Four canals in Wyoming and four in Utah divert water above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15						48	92	97	20	11	8.0
2	14						40	106	79	21	9.1	9.5
3	15						36	159	75	20	8.8	8.4
4	14						38	184	103	18	8.8	8.0
5	14			*14			48	198	139	20	9.1	8.0
6	14						57	201	147	18	9.5	8.0
7	12					13	48	175	119	16	11	8.0
8	11						43	139	98	15	9.1	8.4
9	11						46	145	87	13	8.2	8.4
10	12						39	145	77	12	8.2	8.2
11	13						41	111	67	12	8.4	7.7
12	12						69	98	58	14	12	6.9
13	13				(*)	14	94	103	50	18	12	6.4
14	16					15	91	110	43	14	12	6.2
15	13	2	13		12	14	97	100	42	12	12	6.4
16	13					14	122	91	36	11	10	6.0
17	16					14	143	103	27	9.8	8.4	6.4
18	16					15	157	113	37	9.5	8.0	7.3
19	13					18	164	102	44	8.8	7.7	7.3
20	13			12		22	167	86	37	8.4	7.7	7.3
21	14					*20	137	98	36	8.0	9.8	7.5
22	13					b18	90	110	32	9.1	14	6.9
23	6					b17	117	106	30	9.8	20	5.8
24						b16	157	96	28	12	13	5.8
25						b16	195	83	23	16	9.5	4.7
26						b20	207	71	23	16	8.4	5.1
27	2					28	198	70	22	13	8.4	5.3
28						40	157	86	22	11	8.4	5.3
29		8			-	42	169	87	20	11	8.4	5.5
30		13			-	47	155	80	19	14	8.4	5.5
31		-			-	53	-	74	-	14	8.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	319	16	-	10.3	633
November	77	13	-	2.6	153
December	403	-	-	13	799
Calendar year 1945	10,617.3	159	-	29.1	21,070
January	390	-	-	12.6	774
February	336	-	-	12	666
March	599	53	-	19.3	1,190
April	3,170	207	36	106	6,290
May	3,522	201	70	114	6,990
June	1,717	147	19	57.2	3,410
July	424.4	21	8.0	13.7	842
August	307.5	20	7.7	9.92	610
September	208.2	9.5	4.7	6.94	413
Water year 1945-46	11,473.1	207	-	31.4	22,770

* Winter discharge measurement made on this day.
† Field estimate made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Nov. 8 to Mar. 21, Aug. 27, 28 (stage-discharge relation affected by ice during winter months); discharge computed on basis of 1 field estimate, 3 discharge measurements, weather records, and records for stations on nearby streams, or interpolated.

Sulphur Creek near Evanston, Wyo.

Location.- Water-stage recorder, lat. 41°10', long. 110°52', in SE¼ sec. 23, T. 14 N., R. 119 W., 4.8 miles upstream from mouth and 9 miles southeast of Evanston.

Records available.- April 1942 to September 1946.

Extremes.- Maximum discharge during year, 338 second-feet Mar. 31 (gage height, 2.60 feet); minimum daily, 0.4 second-foot Aug. 3, 4, Sept. 22, 23.
1942-46: Maximum discharge, 740 second-feet Apr. 20, 1945; minimum daily, 0.2 second-foot Sept. 14-17, 19, 20, 1943.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	18		15		10	128	49	23	3.8	0.7	1.1
2	2.7	20		15		15	95	46	23	5.3	.5	.9
3	2.3	20		15		14	80	53	20	7.4	.4	.8
4	2.0	18		15		13	76	58	18	8.6	.4	.7
5	1.5	15		*15		12	120	53	16	9.7	.6	.6
6	2.0	14		15		12	150	58	12	8.9	.7	.6
7	1.6	13		15		12	145	46	13	8.2	.7	.5
8	1.3	12		15		13	123	36	14	7.1	.7	1.1
9	1.2	12		15		15	116	40	14	4.0	.5	.9
10	1.2	8.2		13		18	61	57	11	2.5	.4	.7
11	1.1	8.9	7	10	6.5	20	76	44	10	2.7	.5	.6
12	2.0	11		9		23	148	28	9.7	2.7	.7	.9
13	5.0	14		8	(*)	26	188	26	11	6.3	.7	1.0
14	4.5	15		7		30	169	27	8.6	4.0	1.5	.8
15	4.0	15				28	128	25	6.0	2.3	.9	.8
16	3.5	16				26	110	24	3.8	1.2	.8	.7
17	3.0	17				24	110	19	3.8	1.1	.7	.5
18	2.7	20				30	118	15	6.3	1.0	.7	.7
19	2.5	20				45	136	18	17	.8	.9	.6
20	2.3	20				*57	140	18	13	.7	.9	.6
21	2.5	15				b53	145	16	6.7	.7	1.1	.5
22	2.5	13				50	92	16	4.8	1.1	1.3	.4
23	2.7	b13	8	6.5		45	92	27	2.8	1.1	1.8	.4
24	4.3	b14	9			b44	106	32	3.0	1.2	1.2	.5
25	7.4	15	10		9	45	121	24	3.0	1.1	1.1	.5
26	7.4	16	12			50	118	22	2.8	1.1	1.1	.7
27	7.1	16	14			60	124	20	2.2	1.1	1.1	.7
28	7.4	*16	15			67	102	22	1.8	.9	1.3	.6
29	7.4	10	15		-	*82	100	35	2.2	1.1	1.5	.6
30	7.8	7	15		-	123	80	40	3.3	1.3	1.1	.9
31	17	-	15		-	229	-	34	-	.9	1.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	122.9	17	1.1	3.96	244
November	442.1	20	7	14.7	877
December	267	-	-	8.6	530
Calendar year 1945	7,659.1	310	-	21.0	15,200
January	292.5	-	-	9.44	580
February	202.0	-	-	7.21	401
March	1,291	229	10	41.6	2,560
April	3,497	188	61	117	6,940
May	1,028	58	15	33.2	2,040
June	285.8	23	1.8	9.53	567
July	99.9	9.7	.7	3.22	198
August	27.6	1.8	.4	.89	55
September	20.9	1.1	.4	.70	41
Water year 1945-46	7,576.7	229	.4	20.8	15,030

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Oct. 12-17, Nov. 21, 22, Nov. 25 to Mar. 19, Apr. 29, 30 (ice effect during winter months); discharge computed on basis of 3 discharge measurements, weather records, and records for stations on nearby streams.

Chapman Canal at State line, near Evanston, Wyo.

Location.- Staff gage, lat. 41°24', long. 111°02', in SE¼ sec. 36, T. 17 N., R. 121 W., at highway bridge, 6½ miles downstream from headgates and 10 miles northwest of Evanston.

Records available.- October 1945 to September 1946. April to September 1942 and May to September 1943 in Upper Bear River Water Commissioner's reports, Utah; April 1944 to September 1946 in Upper Bear River Water Commissioner's reports, Utah, and Bear River Hydrometric Data reports.

Extremes.- Maximum discharge observed during year, 129 second-feet Apr. 14; no flow on many days.
1942-46: Maximum discharge observed, that of Apr. 14, 1946; no flow at times in each year.

Remarks.- Records fair. Canal diverts water from Bear River in Wyoming in N3½ sec. 36, T. 16 N., R. 121 W. Many diversions above station for irrigation in Wyoming. Flow at station is for storage in Neponset Reservoir, Utah, and irrigation in Saleratus Basin, Utah.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	8.3				0	59	48	38	0.9		
2	.6	8.8				0	56	45	41	e.2		
3	.5	8.8				0	59	45	38	e.1		
4	.6	8.5				0	61	52	56	e.1		
5	0	9.1				0	62	52	73	e.1		
6	0	8.8				0	64	53	75	e.1		
7	0	9.4				0	66	48	78	e.1		
8	.4	10				0	63	44	77	a.1		
9	.6	8.0				0	64	45	74	a.1		
10	.4	8.0				0	75	49	71	e.1		
11	.6	1.1				0	79	44	69	e.1		
12	.6	.6				0	109	36	57	0		
13	.8	0				0	116	33	54	0		
14	1.1	0				0	129	35	52	0		
15	1.6	0				a6	73	36	50	0		
16	1.8	0				a6	77	38	48	0		
17	1.9	0				a6	75	41	48	0		
18	1.6	0				6	78	47	48	0		
19	1.1	0				a4	84	50	48	0		
20	.8	0				a2	86	51	43	0		
21	.8	0				a1	99	55	42	0		
22	1.6	0				0	87	60	36	0		
23	3.6	0				0	85	65	33	0		
24	4.0	0				0	78	66	31	0		
25	3.6	0				0	87	58	30	0		
26	3.6	0				0	84	49	26	0		
27	3.5	0				0	63	48	19	0		
28	4.0	0				0	59	49	9.1	0		
29	2.6	0				0	60	53	1.8	0		
30	3.3	0				1.9	55	52	1.8	0		
31	4.4	-				56	-	47	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	50.6	4.4	0	1.63	100
November	89.4	10	0	2.98	177
December	0	0	0	0	0
Calendar year	-	-	-	-	-
January	0	0	0	0	0
February	0	0	0	0	0
March	88.9	56	0	2.87	176
April	2,292	129	55	76.4	4,550
May	1,494	66	33	48.2	2,960
June	1,367.7	78	1.8	45.6	2,710
July	2.0	.9	0	.06	3.9
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1945-46	5,384.6	129	0	14.8	10,680

a Nc gage-height record; discharge computed on basis of discharge measurement on Mar. 18 and unpublished record of flow at head of canal.
e Backwater from dam; discharge computed on basis of field engineer's estimates of flow July 3, 10.

Twin Creek at Sage, Wyo.

Location.- Water-stage recorder, lat. 41°49', long. 110°58', in SE¼ sec. 7, T. 21 N., R. 119 W. at Sage, 5 miles upstream from mouth. Prior to Oct. 1, 1945, staff gage at site 0.6 mile upstream, at different datum.

Records available.- April 1943 to September 1946.

Extremes.- Maximum discharge during year, 246 second-feet Mar. 28 (gage height, 3.73 feet); minimum not determined (occurred during winter period).
1943-46: Maximum discharge observed, 610 second-feet Apr. 5, 1944; minimum daily discharge, 2.2 second-feet Aug. 5, 1943.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.7	7.7				10	112	47	23	6.2	7.2	10
2	6.7	6.7				17	74	44	22	5.6	6.7	9.7
3	7.2	7.7				15	43	44	21	6.7	6.7	9.7
4	7.2	7.2				14	43	44	18	5.6	5.1	8.2
5	7.2	6.2				*13	71	43	17	4.1	4.6	7.7
6	7.2	7.7				12	152	43	16	4.6	4.6	6.7
7	7.2	7.7				12	145	42	16	5.6	4.6	5.6
8	7.2	3.1				14	82	42	14	6.7	4.1	42
9	7.2	3.6				17	72	46	13	6.2	4.1	15
10	7.2	5.6				22	48	63	13	5.6	3.6	6.2
11	6.7	6.2			5	27	37	50	12	5.6	3.6	5.1
12	6.7	5.1				35	78	43	12	6.2	4.6	5.1
13	6.7	5.6				45	120	37	11	6.7	5.1	5.1
14	6.7	2.7		(*)		50	163	37	11	6.7	6.2	5.1
15	6.2	4.6	5	5		48	140	36	11	5.6	6.7	5.1
16	6.2	5				45	125	36	8.2	5.1	6.2	4.6
17	7.2	5				42	119	35	9.7	4.1	5.6	5.6
18	6.2	5				*45	106	32	9.7	3.6	5.6	5.6
19	5.6	5			(*)	60	106	31	10	3.1	5.6	5.6
20	5.1	5				120	95	29	10	2.7	4.6	7.2
21	5.1	5				100	84	28	8.9	2.7	4.1	7.2
22	4.6	5				89	66	28	8.9	2.7	4.6	7.2
23	5.1	5				98	59	26	8.9	3.1	13	6.7
24	4.1	5				89	61	28	8.9	3.1	66	6.7
25	5.1	5				113	62	28	9.7	4.6	21	6.2
26	4.1	*5			8	108	63	26	10	21	20	6.7
27	4.1	5				112	65	24	8.2	12	14	7.2
28	4.1	5				*196	61	25	7.2	7.7	13	7.2
29	4.1	5			-	201	55	34	7.2	7.2	13	7.2
30	5.1	5			-	196	53	35	6.2	7.2	12	7.2
31	7.2	-			-	126	-	28	-	8.2	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	187.0	7.2	4.1	6.03	371
November	162.4	7.7	2.7	5.41	322
December	155	-	-	5	307
Calendar year 1945	4,574.6	204	-	12.5	9,070
January	155	-	-	5	307
February	161	-	-	5.8	319
March	2,091	201	10	67.5	4,150
April	2,560	163	43	85.3	5,080
May	1,134	63	24	36.6	2,250
June	361.7	23	6.2	12.1	717
July	185.8	21	2.7	5.99	369
August	297.8	66	3.6	9.61	591
September	244.4	42	4.6	8.15	485
Water year 1945-46	7,695.1	201	-	21.1	15,270

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 15 to Mar. 21 (no gage-height record Nov. 21-25, Dec. 6 to Mar. 5; discharge computed on basis of 4 discharge measurements, weather records, and records for stations on nearby streams).

Smiths Fork near Border, Wyo.

Location.- Water-stage recorder, lat. 42°17', long. 110°52', in SW¼ sec. 33, T. 27 N., R. 118 W., 3½ miles upstream from Howland Creek, 7 miles downstream from Hobble Creek, and 11 miles northeast of Border. Prior to Oct. 15, 1945, at site 150 feet downstream, at different datum.

Records available.- May 1942 to September 1946.

Extremes.- Maximum discharge during year, 859 second-feet Apr. 26 (gage height, 3.89 feet); minimum not determined (occurred during period of ice effect or no gage-height record).
1942-46: Maximum discharge, 935 second-feet May 30, 1943 (gage height, 4.29 feet, site and datum then in use); minimum daily, 49 second-feet Mar. 30, Apr. 4, 5, 1945, but may have been less during period of ice effect.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. One diversion above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	85	74	70			100	677	491	310	166	116
2	97	86	b72	70			*101	614	478	302	164	116
3	95	83	b68				100	591	478	296	160	112
4	95	83	b70				94	614	525	285	155	112
5	95	85	b70				105	652	600	285	153	114
6	93	91	b72	b70			118	682	657	272	151	114
7	93	88	*72			70	119	687	662	262	147	118
8	92	80					116	667	633	252	143	123
9	90	88					118	662	619	240	143	114
10	90	83			65		114	609	619	237	141	112
11	88	83					114	555	609	226	137	108
12	90	80					129	568	586	223	137	105
13	92	80					151	516	560	220	141	105
14	88	b76					201	495	542	212	135	103
15	86	b78					243	483	534	209	133	103
16	93	80	b70			80	324	470	521	209	131	108
17	91	78					417	478	504	204	127	112
18	91	78					504	504	495	199	127	108
19	88	b78					600	525	474	196	123	105
20	88	77					667	516	441	194	123	103
21	88	b75		b65			652	525	425	189	123	103
22	85	b70					582	534	413	184	127	103
23	83	b72					600	542	401	186	137	101
24	85	b75	72				647	529	405	186	153	100
25	85	b76	75		70	85	734	508	397	207	133	100
26	*83	75	72				794	516	362	226	137	98
27	83	75	b75				772	521	350	189	127	98
28	83	b76	b75				778	551	343	180	125	96
29	82	b76	b75		-	90	783	560	332	177	121	96
30	83	74	72		-		783	525	320	173	118	96
31	89	-	70		-			499	-	173	116	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,765	101	82	89.2	5,480
November	2,384	91	70	79.5	4,730
December	2,204	-	-	71.1	4,370
Calendar year 1945	63,708	657	-	175	126,400
January	2,065	-	-	66.6	4,100
February	1,860	-	-	66.4	3,690
March	2,435	-	-	78.5	4,830
April	11,560	794	94	385	22,930
May	17,375	687	470	560	34,460
June	14,776	662	320	493	29,310
July	6,903	310	173	223	13,690
August	4,254	166	116	137	8,440
September	3,202	123	96	107	6,350
Water year 1945-46	71,783	794	-	197	142,400

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Feb. 1 to Apr. 1; discharge computed on basis of weather records and records for station at Cokeville.

Smiths Fork at Cokeville, Wyo.

Location.- Water-stage recorder, lat. 42°06', long. 110°57', in NW¼ sec. 4, T. 24 N., R. 119 W., 1 mile northeast of Cokeville and 2 miles upstream from mouth.

Records available.- April 1942 to September 1946.

Extremes.- Maximum discharge during year, 986 second-feet Apr. 30 (gage height, 5.24 feet); minimum daily, 42 second-feet Aug. 21.
1942-46: Maximum daily discharge, 1,050 second-feet May 4, 1943, computed from records for station near Border; minimum daily, 32 second-feet Aug. 18, 24, 25, Sept. 2, 3, 1942.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	96					143	934	406	186	83	80
2	104	96					150	836	389	184	80	99
3	104	a96					145	781	374	180	77	100
4	104	a96					143	771	392	169	76	99
5	106	99		a90			167	791	451	167	73	104
6	102	109					186	822	527	171	62	106
7	102	100	(*)			a90	195	839	549	178	55	106
8	102	a95					189	832	533	173	53	118
9	99	a105					200	825	507	162	52	120
10	99	a102					186	a780	495	160	53	115
11	85	a100	a90		a85		175	723	492	158	53	111
12	77	100					a180	676	482	156	52	107
13	78	94					a200	646	442	152	52	104
14	a79	a100					a250	604	424	145	51	100
15	a80	a110					a350	536	412	139	50	100
16	81	a100					a450	507	397	128	49	100
17	a82	a98				a100	a550	486	372	118	49	106
18	a82	a98					a650	489	369	109	48	102
19	a82	a110					764	a500	369	97	45	100
20	a85	a95		a85			853	a510	333	85	a43	100
21	a95	a95			(*)		884	514	309	82	42	99
22	a95	a90				a105	801	507	292	76	44	97
23	a95	a92				111	767	504	284	70	47	99
24	a95	a95				106	801	495	282	71	53	99
25	a95	a95			a90	b102	860	458	267	72	51	99
26	96	a95	a95			b100	948	470	236	202	50	96
27	96	a95				97	976	448	206	128	48	91
28	96	a95				111	968	476	200	106	64	91
29	91	a95			-	*128	965	507	195	99	74	91
30	86	a95			-	141	979	479	191	97	74	91
31	96	-			-	152	-	427	-	92	77	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,873	106	77	92.7	5,700
November	2,941	110	90	98.0	5,830
December	2,840	-	-	91.6	5,630
Calendar year 1945	57,259	580	-	157	113,600
January	2,680	-	-	86.5	5,320
February	2,420	-	-	86.4	4,800
March	3,133	152	-	101	6,210
April	15,075	979	143	502	29,900
May	19,173	934	427	618	38,030
June	11,177	549	191	373	22,170
July	4,112	202	70	133	8,160
August	1,780	83	42	57.4	3,530
September	3,030	120	80	101	6,010
Water year 1945-46	71,234	979	42	195	141,300

*, Winter discharge measurement made on this day.
a, No gage-height record (stage-discharge relation affected by ice during winter months); discharge computed on basis of 2 discharge measurements, weather records, records for station near Border, or interpolated.
b, Stage-discharge relation affected by ice.

Hobble Creek near Geneva, Idaho

Location.- Water-stage recorder, lat. 42°22', long. 110°51', in NW¼ sec. 34, T. 28 N., R. 118 W., in Wyoming, 0.3 mile upstream from mouth and 10.4 miles east of Geneva.

Records available.- March 1943 to September 1946 (discontinued).

Extremes.- Maximum discharge during year, 386 second-feet June 6 (gage height, 1.79 feet); minimum not determined (occurred during period of no gage-height record).
1943-46: Maximum discharge, 532 second-feet June 1, 1943 (gage height, 2.17 feet); minimum daily, 35 second-feet Mar. 19, 1943.

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

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

0.60	46	1.20	172
.70	60	1.40	235
.80	77	1.60	308
1.00	120	1.80	390

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	62	56	53			60	308	274	205	118	83
2	75	62	b55	50			60	293	274	202	118	81
3	74	60	b55	50			57	289	278	196	118	81
4	74	59	56	50			56	308	300	193	115	79
5	74	60	57	50			59	328	340	190	113	79
6	72	63	56	49		a50	63	352	377	187	113	79
7	72	62	54	49			63	348	382	187	111	83
8	70	57	54	49			60	328	373	184	111	85
9	70	56	b53				60	328	365	184	108	79
10	70	59	b52				60	300	365	181	106	77
11	70	57	b52				60	281	365	172	106	77
12	70	57	b52				65	270	348	172	106	75
13	70	57	b52				75	266	336	167	106	74
14	70	54	b52				95	256	324	164	104	74
15	68	56	b52				108	252	324	156	102	72
16	72	57	b52	b48	a48	a55	138	260	316	156	99	75
17	70	57	b52				169	270	312	153	97	75
18	70	57	b52				193	281	308	146	97	74
19	68	57	b52				222	289	289	145	95	72
20	68	56	b52				238	289	274	145	95	70
21	67	56	b52				235	293	263	142	93	70
22	67	b55	b52				215	300	260	140	91	68
23	67	56	b52				218	304	252	135	95	68
24	65	57	b52				242	297	260	135	108	68
25	65	57	b52			a60	278	285	242	142	93	70
26	63	57	b52	a48			300	289	232	145	93	70
27	62	56	b53				312	289	225	130	89	70
28	62	56	b54			62	320	300	218	125	87	a69
29	60	56	b54		-	62	324	300	215	122	87	a68
30	62	56	52		-	63	332	289	212	120	85	a68
31	63	-	54		-	65	-	278	-	118	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,125	75	60	68.5	4,210
November	1,727	63	54	57.6	3,430
December	1,647	57	52	53.1	3,270
Calendar year 1945	37,459	322	36	103	74,300
January	1,504	-	-	48.5	2,980
February	1,344	-	-	48	2,670
March	1,712	-	-	55.2	3,400
April	4,737	332	56	158	9,400
May	9,120	352	252	294	18,090
June	8,903	382	212	297	17,660
July	4,943	205	118	159	9,800
August	3,142	118	83	101	6,230
September	2,233	85	68	74.4	4,430
Water year 1945-46	43,137	382	-	118	85,570

a No gage-height record; discharge computed on basis of weather records and records for stations on Smiths Fork near Border, Wyo., and at Cokeville, Wyo.
b Stage-discharge relation affected by ice.

Pine Creek near Cokeville, Wyo.

Location.- Staff gage, lat. 42°06', long. 110°50', in SW¼ sec. 35, T. 25 N., R. 118 W., 200 feet downstream from unnamed tributary and 7½ miles east of Cokeville.

Drainage area.- 7.9 square miles.

Records available.- July 1944 to September 1946.

Extremes.- Maximum discharge observed during year, 19 second-feet Apr. 27-30 (gage height, 0.64 foot); minimum daily, 10 second-feet Nov. 16, 17.
1944-46: Maximum discharge observed, 26 second-feet July 22, 1945; maximum gage height, 0.64 foot Apr. 27-30, 1946; minimum daily discharge, that of Nov. 16, 17, 1945.

Remarks.- Records fair. One power diversion upstream which returns to stream just above station. Discharge is mostly flow from springs at head of unnamed tributary. Staff gage read twice daily.

Cooperation.- Gage-height record furnished by Western States Utilities Co.

Discharge, in second-feet, water year October 1945 to September 1946

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

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	422	15	12	13.6	837
November	368	14	10	12.3	730
December	460	16	13	14.8	912
Calendar year 1945	5,338	22	10	14.6	10,580
January	524	18	16	16.9	1,040
February	397	15	14	14.2	787
March	434	14	14	14.0	861
April	472	19	14	15.7	936
May	547	18	17	17.6	1,080
June	486	17	16	16.2	964
July	465	18	14	15.0	922
August	494	17	15	15.9	980
September	435	15	14	14.5	863
Water year 1945-46	5,504	19	10	15.1	10,910

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., 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 1946.

Extremes.- Maximum discharge during year, 241 second-feet Apr. 26 (gage height, 4.07 feet), from rating curve extended above 90 second-feet; minimum not determined (occurred during period of ice effect).
1939-46: Maximum discharge, that of Apr. 26, 1946; minimum daily, 1.3 second-feet Nov. 13, 23, 1940.

Remarks.- Records good except those for period of ice effect or no gage-height record, which are fair. Practically no diversion above station. Many diversions below station for irrigation. No regulation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	5.7	a5.0	b6.0		3.1	7.5	160	42	17	7.7	5.4
2	5.0	5.7	a4.8	b6.0			7.7	147	40	17	7.5	5.4
3	5.0	5.9	a4.5	b6.0			11	135	39	16	7.2	5.2
4	5.0	5.7	a4.8	a6.0			12	128	38	16	7.0	5.0
5	5.0	5.4	*5.2	a6.0	b4.5		16	123	37	16	6.7	5.4
6	5.0	6.2	5.4	a6.0		b3.0	22	117	36	15	6.7	5.4
7	5.0	5.9	5.0	a5.8			22	110	35	15	6.2	5.9
8	5.0	b5.5	5.2	a5.6			20	106	34	14	6.2	6.4
9	5.0	b5.2	4.8	a5.4			21	107	33	13	5.9	5.7
10	5.0	5.2	4.6	a5.2			20	103	31	13	5.7	5.2
11	5.0	5.4	4.8	*5.0	b4.0	b3.5	20	90	31	12	5.4	5.2
12	5.0	5.7	4.8	b4.5		b4.0	30	81	31	12	5.9	5.2
13	5.2	5.0	5.0			b4.5	42	77	30	12	5.9	4.8
14	5.0	b4.5	5.0			5.2	65	72	30	12	5.4	4.8
15	5.0	b4.5	5.0			*5.0	84	69	28	11	5.7	4.8
16	6.2	5.0	4.8		b3.8	5.0	116	66	27	11	5.4	5.9
17	6.4	5.0	5.0			b4.8	142	63	26	10	5.2	6.2
18	6.4	b5.0	5.2	b4.0		b4.5	174	62	30	10	5.0	5.4
19	5.4	b5.0	4.6			b4.5	202	62	30	9.9	5.0	5.4
20	5.4	b5.0	4.4		*3.4	b4.5	214	57	25	9.9	5.0	5.0
21	5.4	b4.8	4.6		3.4	b5.5	212	54	24	9.5	5.0	5.2
22	5.2	b4.5	a5.0		3.2	5.7	196	52	22	9.1	5.2	5.0
23	5.2	4.8	a5.5		3.2	5.7	201	53	22	8.8	8.8	5.0
24	5.0	4.8	a6.0		3.4	5.7	212	54	24	8.8	11	5.0
25	5.0	5.0	a5.5		3.2	6.4	226	49	23	9.1	6.7	5.0
26	*4.8	5.2	a5.2		3.1	7.0	227	47	21	36	7.7	4.8
27	4.8	5.0	a5.0	b4.5	3.2	6.4	215	48	20	12	6.7	4.8
28	4.8	b5.0	a5.5		3.0	6.7	204	53	20	9.5	5.9	4.6
29	4.6	5.0	6.7		-	7.2	191	55	20	8.8	5.4	4.8
30	5.0	5.0	5.2		-	8.4	181	52	18	8.8	5.4	4.8
31	5.7	-	b6.0		-	8.8	-	46	-	8.4	5.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	160.5	6.4	4.6	5.18	318
November	155.6	6.2	4.5	5.19	309
December	158.1	6.7	4.4	5.10	314
Calendar year 1945	4,946.9	71	-	13.6	9,820
January	148.0	-	-	4.77	294
February	108.5	-	-	3.88	215
March	149.1	8.8	-	4.81	296
April	3,313.2	227	7.5	110	6,570
May	2,498	160	46	80.6	4,950
June	867	42	18	28.9	1,720
July	390.6	36	8.4	12.6	775
August	193.7	11	5.0	6.25	384
September	156.7	6.4	4.6	5.22	311
Water year 1945-46	8,299.0	227	-	22.7	16,460

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations on nearby streams.
b Stage-discharge relation affected by ice.

Thomas Fork near Raymond, Idaho

Location.- Water-stage recorder, lat. 42°16', long. 111°05', in SE¼ sec. 28, T. 13 S., R. 46 E., at J. W. Mumford Ranch, 1½ miles southwest of Raymond.

Records available.- May 1942 to September 1946.

Extremes.- Maximum discharge during year, 352 second-feet Apr. 27 (gage height, 7.82 feet); minimum not determined (occurred during period of ice effect or no gage-height record).
1942-46: Maximum discharge, 359 second-feet Apr. 25, 1943; maximum gage height, that of Apr. 27, 1946; minimum daily discharge, 1.6 second-feet Oct. 1, 1942.

Remarks.- Records fair. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	12					54	320	160	39	44	22
2	10	12					63	314	155	41	42	22
3	10	12		(*)			64	306	144	41	39	21
4	11	12					70	298	106	36	36	21
5	11	12		b20	16		77	293	104	32	35	20
6	14	13				12	96	288	94	30	35	20
7	18	14					110	281	90	28	30	20
8	19	13					110	274	90	29	30	20
9	18	b13					115	268	88	28	30	19
10	18	b13					118	268	86	28	28	18
11	18	b14	b14		14	14	122	266	78	27	24	18
12	16	b14				16	131	251	78	27	24	19
13	15	b14				18	146	236	80	28	24	18
14	15	b13				18	174	232	81	29	24	19
15	14	*b13				17	197	220	76	29	23	18
16	15	14		b15		*17	221	210	70	30	23	19
17	15	14				16	239	210	70	30	23	18
18	15	14				16	265	200	72	29	22	18
19	14	14				17	302	200	63	27	20	18
20	14	13				20	322	200	47	27	20	18
21	14	b12				20	329	190	46	33	19	18
22	14	b12			12	19	330	190	44	33	20	18
23	14	b13				18	326	190	42	33	22	18
24	13	b14				20	327	190	39	34	26	18
25	13	b14				18	329	180	40	41	25	18
26	13	b14				19	332	170	41	46	26	18
27	13	b14	b20	b16		19	334	170	41	47	24	16
28	12	b14				21	330	180	39	50	24	16
29	12	b14			-	25	327	180	39	46	24	15
30	12	b14		(*)	-	37	323	170	38	46	22	15
31	12	-			-	47	-	160	-	46	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	434	19	10	14.0	861
November	398	14	12	13.3	789
December	488	-	-	15.7	968
Calendar year 1945	13,721.2	201	-	37.6	27,200
January	513	-	-	16.5	1,020
February	380	-	-	13.6	754
March	552	47	-	17.8	1,090
April	6,283	334	54	209	12,460
May	7,105	320	160	229	14,090
June	2,241	160	38	74.7	4,440
July	1,070	50	27	34.5	2,120
August	830	44	19	26.8	1,650
September	555	22	15	18.5	1,100
Water year 1945-46	20,649	334	-	57.1	41,340

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Feb. 1 to Mar. 14, May 15 to June 2; discharge computed on basis of weather records, records for Thomas Fork near Geneva, Salt Creek near Geneva, and Montpelier Creek at irrigators weir, near Montpelier.

Salt Creek near Geneva, Idaho

Location.- Water-stage recorder, lat. 42°24'00", long. 110°59'30", in NW¼ sec. 21, T. 28 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 4¾ miles northeast of Geneva post office.

Records available.- October 1939 to September 1946.

Extremes.- Maximum discharge during year, 284 second-feet Apr. 26 (gage height, 4.78 feet); minimum not determined (occurred during period of ice effect or no gage-height record).
1939-46: Maximum discharge, 292 second-feet Apr. 24, 1943, from rating curve extended above 120 second-feet; maximum gage height, that of Apr. 26, 1946; minimum discharge, 0.5 second-foot Aug. 18, 1940 (gage height, 1.05 feet).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Several small diversions above station for irrigation. No diversion below station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	6.6	5.3	8.3	b5	4.5	a12	176	47	18	8.8	6.0
2	6.6	6.9	4.5	6.9	b5	3.8	a12	156	45	18	8.2	6.0
3	6.6	7.2	4.3	7.8	b5	4.7	a14	144	43	17	7.7	5.7
4	6.6	6.6	4.3	7.2	b5	4.3	a16	139	41	17	7.2	5.5
5	6.4	6.4	*4.2	6.9	b5	4.3	a20	137	39	17	7.2	5.7
6	6.4	7.5	4.3	6.0	b5	3.8	a25	132	37	16	7.2	6.0
7	6.6	7.8	4.2	6.6	b5	4.2	a25	124	37	16	6.7	6.2
8	6.6	7.5	3.6	6.0	b5	4.2	a25	117	35	16	6.4	6.7
9	6.6	b7.0	3.3	6.2	b5	4.0	a25	113	34	14	6.2	6.4
10	6.6	6.9	3.8	5.1	b5	4.3	a25	105	33	14	6.2	6.0
11	6.6	6.9	4.5	*b5.0	b5	5.1	a25	96	32	14	6.0	5.7
12	a6.5	7.2	4.3		b4.5	a6.0	a40	90	32	13	6.0	5.5
13	a6.5	6.9	4.3		b4.5	a6.5	a55	85	31	14	6.7	5.2
14	a6.5	a6.5	4.5		b4.5	a7.0	a80	79	30	13	6.4	5.0
15	a6.5	b6.5	4.3		b4.5	*b6.5	a100	75	29	12	6.2	5.0
16	a8	7.2	4.2		b4.5	b6.0	a130	71	27	12	6.0	5.7
17	a8	b7	b4.5	b4.5	4.7	b5.5	a160	67	27	11	5.7	6.7
18	a8	b7	b4.5		4.9	b5.0	a200	65	29	11	5.5	6.2
19	a7	b7	4.7		4.7	b5.0	a220	63	28	11	5.5	6.0
20	a7	b7	4.7		4.5	b5.0	a240	60	25	10	5.2	5.7
21	a7	b6	5.1		4.2	b8.0	a230	58	25	9.9	6.4	5.7
22	a6.5	b5.5	5.8		4.5	b7.0	207	56	23	9.6	7.4	5.7
23	a6.5	b6	6.4		4.2	a7.0	a220	54	22	9.6	9.1	5.7
24	a6.0	b6.5	7.2		4.3	a7.0	a240	54	24	9.9	8.5	5.5
25	a6.0	7.2	6.4		4.7	a7.5	250	50	23	9.6	7.4	5.5
26	*6.0	6.9	6.2	b5	4.2	8.0	254	49	19	11	8.2	5.2
27	5.8	6.6	5.8		4.0	8.9	243	49	21	9.9	7.2	5.0
28	5.8	6.2	7.5		4.9	11	232	51	20	9.4	6.7	5.0
29	5.8	6.2	b10		-	a12	222	54	19	9.1	6.7	5.0
30	6.0	6.4	b8		-	a13	213	51	19	9.1	6.4	5.0
31	6.9	-	b9		-	a15	-	49	-	9.6	5.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	204.5	8	5.8	6.60	406
November	203.1	7.8	5.5	6.77	403
December	163.7	10	3.3	5.28	325
Calendar year 1945	7,267	125	-	19.9	14,420
January	166.5	8.3	-	5.37	330
February	131.3	5	4.0	4.69	260
March	204.1	15	3.8	6.58	405
April	3,760	254	12	125.	7,460
May	2,669	176	49	86.1	5,290
June	896	47	19	29.9	1,780
July	390.7	18	9.1	12.6	775
August	210.7	9.1	5.2	6.80	418
September	170.2	6.7	5.0	5.67	338
Water year 1945-46	9,169.8	254	-	25.1	18,190

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Thomas Fork near Geneva, and Montpelier Creek at irrigators weir, near Montpelier.
b Stage-discharge relation affected by ice.

Rainbow inlet canal near Dingle, Idaho

Location.- Water-stage recorder, lat. 42°13', long. 111°17'30", in SE¼ sec. 3, T. 14 S., R. 44 E., 1½ miles west of Dingle and 1¾ miles downstream from head at Stewart Dam.

Records available.- October 1945 to September 1946. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Extremes.- Maximum discharge during year, 2,820 second-feet Mar. 29 (gage height, 6.75 feet); minimum, 36 second-feet July 2.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Canal diverts from Bear River at Stewart Dam in NE¼ sec. 34, T. 13 S., R. 44 E., for storage in Bear Lake. At times flow in canal is augmented by surplus water from Black Otter Slough, about half a mile above station, and by seepage and wastage from irrigated lands on both sides of canal.

Cooperation.- Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. One discharge measurement made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	219	201	240	247	*a170	*193	2,090	2,380	946	55	172	103
2	216	222	240	a260	a175	b195	2,120	2,430	898	38	172	106
3	207	231	237	262	a180	196	1,960	2,420	825	43	166	106
4	177	234	237	265	*a180	*196	1,830	2,380	720	73	155	106
5	166	224	222	274	a180	a200	1,670	2,310	582	78	147	111
6	166	237	231	a280	*178	*a200	1,580	2,240	459	115	133	113
7	158	262	249	a275	a180	a205	1,520	2,140	418	172	130	118
8	150	265	240	a275	*a185	*a205	1,500	1,930	415	178	118	118
9	144	240	259	*a275	a180	b205	1,460	1,820	427	166	120	128
10	144	237	a200	b245	a180	b210	1,420	1,940	412	178	120	136
11	144	268	a190	*b230	*a180	*a210	1,340	2,090	393	169	113	138
12	144	268	a205	b235	b180	a225	1,280	2,080	412	175	108	136
13	144	262	a200	b235	*175	*a230	1,230	1,950	418	178	111	125
14	140	234	189	*205	*b175	a245	1,230	1,840	412	169	103	149
15	127	163	118	196	*b175	*a270	1,280	1,660	412	152	101	158
16	130	281	114	*a190	178	*b315	1,370	1,440	396	149	101	147
17	132	310	101	a195	b180	469	1,480	1,200	371	152	97	149
18	137	284	82	*a200	*178	*a580	1,570	1,080	350	144	95	149
19	147	252	53	a195	175	700	1,650	1,030	331	136	88	166
20	158	231	49	a195	*a185	774	1,730	978	316	123	84	181
21	158	195	48	*a185	a185	777	1,860	918	286	113	77	184
22	158	177	48	a185	a185	864	2,000	857	256	103	75	184
23	160	204	83	187	*a190	962	2,160	784	241	101	72	184
24	172	222	198	187	a190	1,110	2,180	747	205	120	84	181
25	177	228	a205	190	*187	1,280	2,210	697	190	130	88	187
26	183	249	a205	*a195	b195	1,460	2,240	677	181	130	97	196
27	186	249	a205	a185	*a195	1,710	2,300	700	155	136	138	196
28	186	231	a205	*a185	a195	a2,380	2,330	774	128	166	123	193
29	186	219	a230	a185	-	a2,380	2,360	839	106	175	113	190
30	183	237	a250	*a180	-	1,850	2,380	914	82	175	108	193
31	189	-	256	a175	-	1,990	-	954	-	169	106	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,088	219	127	164	10,090
November	7,127	310	163	238	14,140
December	5,589	259	48	180	11,090
Calendar year 1945	104,816	1,350	36	287	207,900
January	6,773	280	175	218	13,430
February	5,091	195	170	182	10,100
March	22,786	2,380	193	735	45,200
April	53,330	2,380	1,230	1,780	105,800
May	46,199	2,430	677	1,490	91,630
June	11,743	946	82	391	23,290
July	4,161	178	38	134	8,250
August	3,515	172	72	113	6,970
September	4,531	196	103	151	8,990
Water year 1945-46	175,933	2,430	38	482	349,000

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

Montepelier Creek at irrigators weir, near Montpelier, Idaho

Location.- Water-stage recorder and concrete rectangular weir, lat. 42°20', long. 111°14', in SE¼ sec. 31, T. 12 S., R. 45 E., 3½ miles downstream from South Fork and 3 miles east of Montpelier.

Records available.- December 1942 to September 1946.

Extremes.- Maximum discharge during year, 170 second-feet Apr. 19 (gage height, 2.45 feet); minimum recorded, 2.4 second-feet Jan. 22, but may have been less during period of no gage-height record.
1942-46: Maximum discharge, that of Apr. 19, 1946; minimum recorded, 1.5 second-feet Jan. 20, 1944, but may have been less during periods of ice effect.

Remarks.- Records excellent except those for periods of no gage-height record, which are fair. One small diversion from tributary above and many diversions below station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	11	a9	8.6	8.0	7.2	20	122	60	a32	20	14
2	11	11	a6	8.2	7.8	7.0	20	116	60	32	20	14
3	11	11	a7	8.0	8.1	7.0	20	112	57	32	18	14
4	11	11	a8	8.0	8.0	7.0	21	108	56	32	18	13
5	10	11	10	8.0	7.8	7.0	22	107	55	35	17	14
6	10	11	10	7.8	7.4	7.3	29	104	53	34	17	14
7	10	11	9.6	7.4	7.4	7.0	30	103	54	31	16	14
8	10	9.8	9.2	a7	6.4	a7	30	104	54	31	16	15
9	10	9.2	5.7	a6.5	6.8	a8	31	104	52	30	16	15
10	10	9.9	6.2	a5.5	7.8	a7	30	103	52	29	16	14
11	a10	10	9.2	a5	7.3	8.4	31	95	50	29	16	14
12	a10	10	8.7	a6	6.2	8.4	34	92	49	27	16	14
13	a10	10	8.8	a7	7.2	9.0	39	89	48	27	17	14
14	a10	9.0	8.8	a8	6.8	9.4	49	86	46	27	16	13
15	a10	9.2	8.5	8.2	6.2	9.1	60	80	46	25	15	13
16	a10	10	8.2	8.2	6.8	9.0	78	78	44	25	15	13
17	a10	10	8.4	8.2	6.0	8.7	114	80	44	24	14	13
18	a10	10	a7	7.0	6.8	9.0	158	77	46	24	14	13
19	a10	9.6	a5	5.9	a7	9.6	159	76	46	22	14	13
20	a10	9.4	a6	6.2	a7	11	152	74	43	22	14	14
21	a10	7.3	a7	4.9	a7	11	157	72	a41	22	14	14
22	a10	5.1	a8	5.7	7.3	11	150	72	a40	20	15	14
23	a10	5.9	a9	7.9	7.2	11	148	71	a38	20	18	14
24	9.8	8.1	a9	8.1	7.2	11	153	73	a40	21	18	14
25	10	10	a9	8.0	7.2	10	155	68	a39	22	17	14
26	9.7	10	8.8	8.1	6.9	10	158	66	a37	22	18	14
27	9.7	11	7.9	8.0	6.8	12	153	66	a36	22	16	14
28	9.7	9.9	7.8	7.0	7.4	13	150	70	a35	20	15	13
29	9.7	9.8	11	8.1	-	15	143	70	a34	20	15	13
30	9.9	10	9.8	7.6	-	18	135	66	a33	21	14	14
31	11	-	8.2	7.8	-	20	-	62	-	21	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	313.5	11	9.7	10.1	622
November	290.2	11	5.1	9.67	576
December	254.8	11	5	8.22	505
Calendar year 1945	6,795.7	85	5	18.6	13,490
January	225.9	8.6	4.9	7.29	448
February	199.8	8.1	6.0	7.14	396
March	305.1	20	7.0	9.84	605
April	2,629	159	20	87.6	5,210
May	2,666	122	62	86.0	5,290
June	1,388	60	33	46.3	2,750
July	801	35	20	25.8	1,590
August	499	20	14	16.1	990
September	413	15	13	13.8	819
Water year 1945-46	9,988.3	159	4.9	27.4	19,800

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

Bear Lake at Lifton, near St. Charles, Idaho

Location.- Water-stage recorder, lat. 42°07'20", long. 111°19'20", in NE¼ sec. 16, T. 15 S., R. 44 E., in Lifton pumping plant of Utah Power & Light Co., and 3½ miles east of St. Charles. Datum of gage is 5,900 feet above mean sea level (levels by Utah Power & Light Co.); gage readings have been reduced to elevations above mean sea level.

Records available.- October 1945 to September 1946. January 1921 to September 1945 (elevations only) in files of Salt Lake City district office, Geological Survey. October 1903 to June 1906 (gage heights only) at different site and datum, published as Bear Lake at Fish Haven.

Extremes.- Maximum contents during year, 1,118,000 acre-feet June 11 (elevation, 5,919.33 feet); minimum, 676,300 acre-feet Oct. 3-12 (elevation, 5,912.83 feet).

1921-46: Maximum contents, 1,423,000 acre-feet June 10, 1923 (elevation, 5,923.68 feet); no contents Nov. 9-19, 1935 (elevation, 5,902.00 feet).

Remarks.- Outflow regulated by gates and pumps at Bear Lake and by gates in dike at north end of Mud Lake. Inflow to lake augmented by water diverted from Bear River through Rainbow inlet canal (see p. 40) and Dingle inlet canal, which empty into Mud Lake. Water from Mud Lake reaches Bear Lake by a sluice at pumping plant or by gates in dike. Capacity, 1,421,000 acre-feet between elevations 5,902.0 feet (lower limit of pumps) and 5,923.65 feet (upper limit of storage with existing facilities). Storage water used for irrigation and power development.

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

Capacity table (elevation, in feet, and contents, in acre-feet)
(Prepared by Geological Survey from data furnished by Utah Power & Light Co.)

5,902	0	5,910	492,300	5,918	1,025,800
5,903	59,200	5,911	556,700	5,919	1,095,200
5,904	119,100	5,912	621,800	5,920	1,164,900
5,905	179,500	5,913	687,500	5,921	1,234,900
5,906	240,700	5,914	754,000	5,922	1,305,000
5,907	302,600	5,915	821,000	5,923	1,375,400
5,908	365,100	5,916	888,600	5,924	1,445,900
5,909	428,400	5,917	956,900	5,925	1,516,600

Contents, in thousands of acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	677.6	676.9	701.4	716.6	738.6	756.0	827.7	974.0	1,098	1,102	1,045	990.6
2	676.9	677.6	702.0	718.0	739.3	756.7	833.7	978.9	1,100	1,100	1,044	988.5
3	676.3	678.3	702.7	719.9	739.3	757.4	839.1	988.5	1,103	1,100	1,042	987.2
4	676.3	678.9	702.7	719.9	739.9	758.7	845.1	989.2	1,106	1,099	1,040	985.1
5	676.3	679.6	703.3	719.9	739.9	760.0	848.5	994.8	1,108	1,099	1,037	982.3
6	676.3	679.6	703.3	720.6	740.6	761.4	853.9	999.6	1,109	1,097	1,034	981.0
7	676.3	680.9	703.3	721.3	740.6	763.4	858.0	1,006	1,111	1,096	1,033	979.6
8	676.3	684.2	703.3	721.3	740.6	764.7	863.4	1,010	1,113	1,094	1,031	978.9
9	676.3	687.5	703.3	721.9	741.9	765.4	870.2	1,015	1,114	1,092	1,028	977.5
10	676.3	690.8	703.3	722.6	743.3	766.7	877.0	1,020	1,116	1,090	1,025	975.4
11	676.3	691.5	704.0	724.0	744.0	767.4	882.5	1,026	1,118	1,089	1,023	973.4
12	676.3	693.4	704.0	726.0	745.3	768.7	885.2	1,033	1,118	1,088	1,022	972.0
13	676.9	693.4	704.7	726.6	746.0	770.1	888.6	1,040	1,116	1,086	1,020	971.3
14	676.9	693.4	705.3	727.3	746.6	772.1	892.0	1,046	1,116	1,085	1,018	970.6
15	676.9	694.1	706.0	727.3	747.3	773.4	896.1	1,051	1,116	1,083	1,014	969.9
16	676.9	695.4	706.0	728.6	748.0	774.1	899.5	1,054	1,115	1,081	1,012	969.2
17	677.6	696.1	706.6	729.3	748.0	776.1	903.7	1,057	1,113	1,080	1,010	967.2
18	677.6	696.1	707.3	729.9	748.6	778.1	907.1	1,060	1,112	1,078	1,009	965.2
19	678.3	696.7	707.3	730.6	749.3	780.1	912.5	1,064	1,113	1,074	1,006	964.5
20	678.3	696.7	708.6	731.3	750.0	786.2	918.6	1,068	1,113	1,072	1,004	963.1
21	678.3	696.7	708.6	731.9	750.6	789.5	922.7	1,071	1,112	1,069	1,002	961.7
22	678.3	697.4	708.6	731.9	751.3	792.2	927.5	1,075	1,111	1,063	1,000	960.4
23	678.3	697.4	708.6	732.6	752.0	794.2	931.0	1,076	1,111	1,062	1,000	959.0
24	678.3	698.1	709.3	733.9	752.7	796.2	936.4	1,081	1,110	1,060	1,000	957.6
25	678.3	698.1	710.0	733.9	753.3	799.6	941.2	1,083	1,109	1,058	996.8	955.5
26	678.3	698.7	710.6	734.6	753.3	802.2	946.6	1,084	1,108	1,058	994.8	954.9
27	678.3	699.4	711.3	735.2	754.0	804.9	953.5	1,086	1,107	1,057	994.8	954.2
28	677.6	700.0	712.0	735.9	755.3	807.6	957.6	1,090	1,106	1,051	994.8	953.5
29	676.9	700.7	713.3	736.6	-	811.0	964.5	1,092	1,104	1,050	994.1	952.8
30	676.9	700.7	714.7	737.2	-	818.3	970.6	1,094	1,103	1,049	992.7	951.5
31	676.9	-	715.3	737.9	-	822.3	-	1,096	-	1,047	991.3	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevations (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	5,912.85	677,600	-700
Nov. 1	5,912.84	676,900	+24,500
Dec. 1	5,913.21	701,400	+15,200
Calendar year 1945...	-	-	-
Jan. 1	5,913.44	716,600	+22,000
Feb. 1	5,913.77	738,600	+17,400
Mar. 1	5,914.03	756,000	+71,700
Apr. 1	5,915.10	827,700	+146,300
May 1	5,917.25	974,000	+124,000
June 1	5,919.04	1,098,000	+4,000
July 1	5,919.10	1,102,000	-57,000
Aug. 1	5,918.28	1,045,000	-54,400
Sept.1	5,917.49	990,600	-39,800
Oct. 1	5,916.91	950,800	-
Water year 1945-46...	-	-	+273,200

Bear Lake Outlet Canal near Paris, Idaho

Location.- Water-stage recorder, lat. 42°13', long. 111°20'30", in SW¼ sec. 8, T. 14 S., R. 44 E., 2,000 feet downstream from head (at dike) and 3 miles southeast of Paris.

Records available.- October 1945 to September 1946. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Average discharge.- 24 years, 281 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,180 second-feet July 26 (gage height, 17.96 feet); minimum daily, 5 second-feet May 8-19.
1923-46: Maximum daily discharge, 1,870 second-feet Aug. 8, 1924; minimum daily, 1 second-foot May 1 to June 6, 1937.

Remarks.- Records good except those for periods of indefinite stage-discharge relation or no gage-height record, which are fair. Flow regulated by Bear Lake and Mud Lake.

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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	12	12	11	10	9	8	6	e10	455	752	330
2	101	12	12	11	10	9	8	6	e10	438	830	322
3	101	12	11	11	10	9	8	6	e10	477	882	401
4	104	12	11	11	10	9	8	6	e10	504	875	622
5	105	12	11	11	10	9	8	6	e10	528	869	739
6	104	12	11	11	10	9	8	6	e10	546	865	715
7	101	12	11	10	10	9	8	6	e10	551	865	599
8	100	12	11	10	10	9	8	5	e10	564	912	591
9	63	12	11	10	10	9	8	5	e10	546	945	619
10	14	12	11	10	9	9	8	5	80	525	892	691
11	13	12	11	10	9	9	8	5	379	517	875	685
12	13	12	11	10	9	9	7	5	588	594	878	538
13	13	12	11	10	9	9	7	5	691	700	878	308
14	13	12	11	10	9	9	7	5	700	676	915	306
15	13	12	11	10	9	9	7	5	697	773	976	312
16	13	12	11	10	9	9	7	5	685	875	979	388
17	13	12	11	10	9	8	7	5	730	869	982	507
18	13	12	11	10	9	8	7	5	767	905	986	429
19	13	12	11	10	9	8	7	5	802	993	982	343
20	13	12	11	10	9	8	7	44	782	1,030	982	341
21	13	12	11	10	9	8	7	215	630	1,060	986	336
22	13	12	11	10	9	8	7	310	559	1,080	993	332
23	13	12	11	10	9	8	7	310	554	1,080	1,020	345
24	13	12	11	10	9	8	7	270	510	1,110	1,080	353
25	13	12	11	10	9	8	6	172	504	1,140	782	353
26	13	12	11	10	9	8	6	164	497	1,130	467	351
27	13	12	11	10	9	8	6	100	484	1,080	840	351
28	13	12	11	10	9	8	6	e10	472	1,040	817	353
29	12	12	11	10	-	8	6	e10	467	798	650	353
30	12	12	11	10	-	8	6	e10	462	633	415	355
31	12	-	11	10	-	8	-	e10	-	659	341	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,164	105	12	37.5	2,310
November	360	12	12	12.0	714
December	343	12	11	11.1	680
Calendar year 1945	45,758	961	3	125	90,760
January	316	11	10	10.2	627
February	261	10	9	9.3	518
March	264	9	8	8.5	524
April	215	8	6	7.2	426
May	1,727	310	5	55.7	3,430
June	12,130	802	10	404	24,080
July	23,876	1,140	438	770	47,360
August	26,511	1,080	341	855	52,580
September	15,268	739	306	442	26,320
Water year 1945-46	80,435	1,140	5	220	159,540

e Stage-discharge relation indefinite, leakage only; discharge computed on basis of 3 discharge measurements and field notes.
Note.- No gage-height record Oct. 11 to May 19; discharge computed on basis of 3 discharge measurements, time of gate changes, and field notes.

Bloomington Creek near Bloomington, Idaho

Location.- Water-stage recorder, lat. 42°11', long. 111°27', in SE¼ sec. 20, T. 14 S., R. 43 E., 2.1 miles west of Bloomington.

Records available.- April 1943 to September 1946.

Extremes.- Maximum discharge during year, 143 second-feet May 5 (gage height, 2.24 feet); minimum daily, 15 second-feet Mar. 23-27.
1943-46: Maximum discharge, 184 second-feet June 2, 1943 (gage height, 2.67 feet); minimum daily, 12 second-feet many days in February and March 1945.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	17	18	17	16	16	19	87	74	54	35	27
2	19	17	18	†17	16	16	20	84	73	54	35	26
3	19	17	18	17	16	16	18	93	76	52	34	26
4	19	17	18	17	16	16	19	103	81	51	35	25
5	19	17	†18	17	†16	16	22	113	87	51	33	26
6	19	17	18	17	16	16	21	122	89	51	33	26
7	18	17	18	17	16	16	20	115	88	50	32	26
8	18	†17	18	17	16	16	21	111	86	49	32	26
9	18	17	18	17	16	16	20	110	85	47	32	26
10	18	17	18	†17	16	16	21	91	85	47	32	25
11	18	17	18	17	16	16	23	85	83	47	32	25
12	18	17	18	17	16	16	24	86	79	47	32	24
13	18	17	18	17	16	16	28	88	75	47	32	24
14	18	17	18	†17	16	16	32	85	74	45	31	25
15	18	18	18	17	16	16	36	88	73	44	31	25
16	18	18	18	17	16	16	41	91	71	42	31	25
17	18	18	18	17	16	16	45	98	70	41	30	24
18	18	18	18	17	16	16	50	102	69	40	30	23
19	18	18	18	17	16	†16	56	99	69	38	30	24
20	18	†18	18	17	16	16	59	95	64	38	30	24
21	18	18	†18	17	16	16	59	98	64	38	30	24
22	18	18	18	17	16	16	58	95	64	38	29	24
23	18	18	18	17	16	15	61	88	63	38	30	23
24	18	19	18	17	16	15	68	89	65	38	30	23
25	17	19	18	16	16	15	76	87	61	38	28	23
26	17	19	†18	16	16	15	85	86	58	37	28	23
27	17	†19	†17	16	16	15	94	86	58	37	27	23
28	17	19	17	16	16	17	99	87	57	36	27	23
29	17	19	17	16	-	20	105	83	56	38	27	23
30	17	19	17	16	-	21	107	78	55	37	27	23
31	17	-	17	16	-	21	-	75	-	36	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	557	19	17	18.0	1,100
November	533	19	17	17.8	1,060
December	553	18	17	17.8	1,100
Calendar year 1945	8,911	82	12	24.4	17,680
January	520	17	16	16.8	1,030
February	448	16	16	16.0	889
March	506	21	15	16.3	1,000
April	1,407	107	18	46.9	2,790
May	2,898	122	75	93.5	5,750
June	2,152	89	55	71.7	4,270
July	1,346	54	36	43.4	2,670
August	951	35	26	30.7	1,890
September	734	27	23	24.5	1,460
Water year 1945-46	12,605	122	15	34.5	25,010

† Discharge measurement or staff-gage reading made on this day.
Note.- No gage-height record Oct. 18-23, Oct. 30 to Mar. 25, June 27-30; discharge computed on basis of 3 discharge measurements, occasional staff-gage readings, or interpolated.

Paris Creek near Paris, Idaho

Location.- Water-stage recorder, lat. 42°13', long. 111°27', in NE¼ sec. 17, T. 14 S., R. 43 E., half a mile upstream from Utah Power & Light Co. power plant and 3 miles southwest of Paris.

Records available.- October 1943 to September 1946.

Extremes.- Maximum discharge during year, 103 second-feet May 7 (gage height, 2.16 feet); minimum daily, 1.9 second-feet Oct. 1, 2, 3.
1944-46: Maximum discharge, that of May 7, 1946; minimum not determined.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Two small diversions for irrigation above station. Paris power canal diverts water from right bank of creek in NE¼ sec. 13, T.14 S., R. 42 E. Water returned to creek in NW¼SW¼ sec. 9, T. 14 S., R. 43 E., except for one small canal, which diverts water for irrigation from power-plant forebay.

Discharge, in second-feet, water yesr October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	2.1	b2.6	3.6	a3.0	2.4	6.4	55	43	17	4.8	4.5
2	1.9	2.3	b2.7	*3.6	a3.2	2.1	6.1	43	42	15	4.5	4.3
3	1.9	2.1	b2.9	3.8	a3.5	2.3	5.5	48	41	14	4.5	4.5
4	2.0	2.1	b3.0	3.6	*b3.5	2.1	5.5	66	44	14	4.5	4.5
5	2.0	2.1	b3.0	3.6	b3.5	2.1	6.9	82	47	14	4.5	4.3
6	2.0	2.3	b3.0	b3.4	b3.5	2.4	8.4	96	49	13	4.5	4.5
7	2.0	b2.5	b2.7	b3.2	b3.3	2.3	7.2	98	47	13	4.5	4.5
8	2.0	b2.6	b2.4	b3.1	b3.1	2.3	6.9	80	44	11	4.1	4.5
9	2.0	2.7	b2.5	b2.9	b2.9	2.3	6.6	80	43	11	3.8	4.5
10	2.0	2.6	b2.5	b2.7	b2.6	2.1	6.4	69	42	11	3.8	4.5
11	2.0	2.3	b2.5	b2.6	b2.6	2.3	7.7	54	41	11	4.1	4.3
12	2.1	2.3	b2.5	b2.5	b2.7	2.4	8.7	50	38	11	4.3	4.5
13	2.3	2.4	b2.5	b2.6	b2.7	2.7	12	55	36	11	4.3	4.5
14	2.1	b2.4	b2.5	b2.6	b2.6	2.6	14	47	36	11	4.1	4.5
15	2.0	b2.4	b2.5	b2.6	b2.5	2.6	18	51	34	11	4.1	4.5
16	2.3	2.3	b2.5	b2.6	b2.3	2.6	22	56	33	9.4	4.1	4.8
17	2.3	2.3	b2.5	b2.6	2.1	2.7	23	64	31	8.7	4.1	4.8
18	2.3	b2.6	b2.5	b2.5	2.1	2.6	26	77	31	8.4	3.8	4.8
19	2.1	b2.7	b2.5	b2.5	2.1	2.9	27	74	30	7.2	3.8	4.5
20	2.1	*b2.8	b2.5	b2.5	2.3	3.4	27	74	27	6.4	3.8	4.5
21	2.1	b2.2	b2.6	a2.5	2.3	3.4	25	74	25	6.1	3.8	5.3
22	2.1	b2.0	b2.7	a2.5	2.1	3.4	23	77	25	5.8	4.1	9.4
23	2.1	b2.2	b2.8	a2.5	2.1	3.4	22	69	25	5.8	5.3	14
24	2.0	b2.3	b2.9	a2.5	2.3	3.4	22	64	25	5.3	4.3	20
25	2.1	b2.5	b3.1	a2.7	2.3	3.2	26	58	24	5.3	4.1	20
26	2.0	b2.7	b3.1	a2.9	2.3	3.4	34	56	23	5.5	4.3	20
27	2.0	b2.8	b3.0	a3.0	2.3	*4.1	40	52	21	5.3	4.3	20
28	2.0	b2.8	b3.4	a3.0	2.3	4.5	48	52	19	5.3	4.3	20
29	2.0	b2.8	b3.5	a3.0	-	5.8	57	48	18	6.1	4.3	20
30	2.3	b2.7	b3.6	a3.0	-	6.9	65	51	17	5.8	4.3	21
31	2.3	-	b3.6	a3.0	-	7.7	-	40	-	5.3	4.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	64.3	2.3	1.9	2.07	128
November	72.9	2.8	2.0	2.43	145
December	86.6	3.6	2.4	2.79	172
Calendar year 1945	2,588.5	67	-	7.09	5,140
Janusry	89.7	3.8	2.5	2.89	178
February	74.1	3.5	2.1	2.65	147
March	98.4	7.7	2.1	3.17	195
April	613.3	65	5.5	20.4	1,220
May	1,960	98	40	63.2	3,890
June	1,001	49	17	33.4	1,990
July	289.7	17	5.3	9.35	575
August	131.4	5.3	3.8	4.24	261
September	260.0	21	4.3	8.67	516
Water yesr 1945-46	4,741.4	98	1.9	13.0	9,420

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations on nearby streams.
b Stage-discharge relation affected by ice.

Paris power canal near Paris, Idaho

Location.- Water-stage recorder, lat. 42°12', long. 111°29', in SE¼ sec. 13, T. 14 S., R. 42 E., half a mile downstream from head gates and 4.4 miles southwest of Paris.

Records available.- October 1943 to September 1946.

Extremes.- Maximum daily discharge during year, 46 second-feet Apr. 27; minimum daily, 4.5 second-feet Sept. 30.
1943-46: Maximum daily discharge, 50 second-feet June 1, 1944 (gage height, 2.45 feet); minimum daily, 0.3 second-foot Oct. 8, 1944.

Remarks.- Records good. One small canal diverts water for irrigation from power plant forebay below station.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	19	18	16	13	13	10	40	36	40	35	29
2	20	19	18	16	13	13	10	38	36	40	34	29
3	20	19	18	16	13	13	11	40	37	41	34	29
4	20	19	18	16	14	13	12	40	38	40	34	29
5	20	19	18	15	14	13	13	40	40	40	33	29
6	20	19	18	15	13	13	13	38	40	40	33	29
7	20	19	18	15	13	13	14	37	40	40	33	29
8	20	18	18	15	13	13	15	36	40	40	33	29
9	20	18	18	15	13	13	15	38	40	39	33	28
10	20	18	18	16	13	13	15	37	40	39	32	28
11	20	18	18	16	12	12	15	36	40	38	32	28
12	20	18	18	15	12	12	15	36	40	38	31	27
13	20	18	18	15	12	12	15	37	40	38	31	27
14	20	18	18	15	12	12	16	36	40	38	31	27
15	20	18	18	15	12	12	16	37	39	37	31	27
16	20	18	18	15	12	12	18	37	38	37	30	27
17	19	18	18	14	12	12	20	38	38	38	30	27
18	19	18	18	14	13	12	23	39	38	37	30	27
19	19	18	17	14	13	12	28	38	38	37	30	26
20	19	18	17	14	13	12	31	36	38	37	30	26
21	19	18	17	14	12	12	35	36	38	37	30	24
22	19	18	17	14	12	12	36	36	38	36	30	19
23	19	18	17	14	13	12	37	36	38	36	30	12
24	19	17	17	14	13	12	40	36	38	36	30	5.8
25	19	17	17	14	13	12	42	35	38	36	30	5.6
26	19	18	17	14	13	12	44	36	38	36	30	5.6
27	19	18	17	14	13	12	46	38	38	36	30	5.3
28	19	18	17	14	13	11	45	38	40	35	30	4.7
29	19	18	16	14	-	10	43	37	41	35	29	4.7
30	19	18	16	14	-	10	42	36	40	35	29	4.5
31	19	-	16	14	-	10	-	36	-	35	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	606	21	19	19.5	1,200
November	545	19	17	18.2	1,080
December	542	18	16	17.5	1,080
Calendar year 1945	7,822	40	11	21.4	15,500
January	456	16	14	14.7	904
February	357	14	12	12.8	708
March	375	13	10	12.1	744
April	735	46	10	24.5	1,460
May	1,154	40	35	37.2	2,290
June	1,163	41	36	38.8	2,310
July	1,167	41	35	37.6	2,310
August	967	35	29	31.2	1,920
September	648.2	29	4.5	21.6	1,290
Water year 1945-46	8,715.2	46	4.5	23.9	17,300

Mill Creek above West Fork, near Liberty, Idaho

Location.- Water-stage recorder, lat. 42°19', long. 111°30', in about SE¼ sec. 2, T. 13 S., R. 42 E. (unsurveyed), a third of a mile upstream from West Fork and 3 miles west of Liberty.

Records available.- October 1944 to September 1946.

Extremes.- Maximum discharge during year, 80 second-feet Apr. 25 (gage height, 2.41 feet); no flow Oct. 1 to Mar. 26, July 31 to Sept. 30.
1944-46: Maximum discharge, that of Apr. 25, 1946; no flow during large part of each year.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	1.0	14	5.4	0.1		
2						0	.8	13	5.6	.2		
3						0	.6	13	6.6	.1		
4						0	.5	14	8.4	.1		
5						0	.6	24	9.6	.1		
6						0	.7	26	8.6	.1		
7						0	1.1	21	6.6	.1		
8						0	1.1	20	5.6	.1		
9						0	1.0	18	5.0	.1		
10						0	.9	12	4.2	.1		
11						0	.9	9.3	3.6	.1		
12						0	1.2	11	2.6	.1		
13						0	2.1	10	2.4	.1		
14						0	4.6	8.6	2.4	.1		
15						0	7.7	9.6	2.1	.1		
16						0	20	12	1.5	.1		
17						0	46	15	.6	.1		
18						0	49	15	.4	.1		
19						0	43	14	.3	.1		
20						0	41	14	.2	.1		
21						0	34	15	.2	.1		
22						0	30	15	.2	.1		
23						0	33	12	.2	.1		
24						0	36	12	.3	.1		
25						0	39	10	.2	.1		
26						0	35	9.6	.2	.1		
27						.1	27	9.6	.1	.1		
28						.3	22	8.4	.1	.1		
29						.4	22	6.8	.1	.1		
30						.6	20	5.4	.1	.1		
31						.8	-	5.0	-	0		

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 1945	645.6	26	0	1.77	1,280
January	0	0	0	0	0
February	0	0	0	0	0
March	2.2	.8	0	.07	4.4
April	521.8	49	.5	17.4	1,030
May	402.3	26	5.0	13.0	798
June	83.4	9.6	.1	2.78	165
July	3.1	.2	0	.10	6.1
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1945-46	1,012.8	49	0	2.77	2,000

Note.- No gage-height record Mar. 27 to Apr. 4, July 21-24; discharge computed on basis of records for Mill Creek near Liberty and Paris Creek near Paris, or interpolated.

Mill Creek near Liberty, Idaho

Location.- Water-stage recorder, lat. 42°20', long. 111°29', in SE¼ sec. 36, T. 12 S., R. 42 E., 2 miles northwest of Liberty and 3½ miles upstream from North Creek.

Records available.- April 1943 to September 1946.

Extremes.- Maximum discharge during year, 150 second-feet May 6 (gage height, 2.93 feet), minimum not determined (occurred during period of ice effect).
1943-46: Maximum discharge, 150 second-feet May 31, 1945, May 6, 1946; maximum gage height, that of May 6, 1946; minimum discharge not determined (occurred during period of ice effect).

Remarks.- Records good except those for period of ice effect or no gage-height record, which are fair. One diversion above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	7.7		(*)	b4.5	4.3	a7.8	82	42	12	10	5.4
2	7.0	7.7				3.9	a7.9	71	42	10	10	5.4
3	7.0	7.3				4.3	a8.0	71	47	9.2	9.8	5.0
4	7.0	7.0	b5.5			3.9	a8.4	75	53	8.6	9.8	5.0
5	7.0	7.0		b5.0	*4.3	3.6	9.2	118	57	8.6	9.8	5.4
6	7.0	7.3				4.1	3.8	9.8	141	55	9.2	8.6	5.4
7	7.0	7.7				4.1	4.3	10	128	48	10	8.6	5.4
8	7.3	7.3				3.8	4.1	10	111	44	12	a8.5	5.7
9	7.3	b6.4				3.9	3.9	9.8	105	44	12	a8.4	5.7
10	7.7	b6.4				3.4	3.8	9.2	82	43	11	a8.2	6.0
11	8.0	b6.7				3.6	4.1	9.8	67	38	10	a8.1	5.7
12	8.0	b6.7				3.8	4.3	12	64	34	9.8	8.0	5.4
13	8.6	b6.7				3.8	4.5	15	66	32	9.2	8.6	4.7
14	8.6	a6.6				3.8	4.3	23	59	32	8.6	8.0	5.0
15	8.6	a6.4	b4.5			3.6	4.1	31	61	30	8.6	8.0	5.0
16	9.2	a6.7		b4.0		3.6	4.3	50	64	28	8.6	7.7	5.7
17	9.8	a6.8				3.2	a4.3	89	77	26	8.0	7.3	5.7
18	10	a6.8				3.2	a4.2	106	92	26	7.7	7.3	5.7
19	10	a6.6				3.2	a4.4	112	90	22	7.7	7.3	5.7
20	9.2	a6.0				3.2	a4.8	112	90	18	8.0	7.0	5.7
21	8.0	*5.0				3.4	a5.2	111	87	13	8.0	6.7	5.7
22	7.7	b4.5				3.4	a5.6	100	93	12	8.0	6.7	5.7
23	7.7	b4.9				3.6	a5.6	102	80	12	8.0	7.3	6.0
24	7.0	b5.2				3.4	a5.6	111	61	13	8.0	7.3	6.4
25	6.4	5.7				3.6	a5.6	111	59	13	8.0	6.7	6.4
26	6.4	6.0	b5.0			3.8	a5.7	114	58	13	8.0	6.7	6.0
27	6.4	6.0		b4.5		3.6	a5.9	110	58	12	8.0	6.4	6.0
28	6.4	b5.8				3.8	a6.4	102	57	13	8.6	5.7	6.0
29	6.4	b5.7				-	a7.0	102	49	12	11	5.7	6.0
30	6.7	b5.6				-	a7.6	100	46	12	11	5.7	6.0
31	7.7	-				-	a7.8	-	42	-	11	5.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	238.1	10	6.4	7.68	472
November	192.2	7.7	4.5	6.41	381
December	151	-	-	4.87	300
Calendar year 1945	5,262.6	120	-	14.4	10,440
January	136	-	-	4.39	270
February	105.2	-	3.2	3.76	209
March	151.2	7.8	3.6	4.88	300
April	1,712.9	114	7.8	57.1	3,400
May	2,404	141	42	77.5	4,770
June	886	57	12	29.5	1,760
July	286.4	12	7.7	9.24	568
August	239.6	10	5.7	7.73	475
September	168.9	6.4	5.0	5.63	335
Water year 1945-46	6,671.5	141	-	18.3	13,240

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records, and records for Montpelier Creek at irrigators weir, near Montpelier.
b Stage-discharge relation affected by ice.

North Creek below Emigration Creek, near Liberty, Idaho

Location.- Staff gage, lat. 42°21', long. 111°28', in NE¼ sec. 30, T. 12 S., R. 43 E., 1,000 feet downstream from Emigration Creek and 3 miles northwest of Liberty.

Records available.- May to September 1946.

Extremes.- Maximum discharge observed during period, 93 second-feet May 8, 9 (gage height, 2.30 feet); minimum observed, 2.2 second-feet Sept. 14, 15.

Remarks.- Records fair. Two small diversions above station for irrigation.

Rating table, May 7 to Sept. 30, 1946 (gage height, in feet, and discharge, in second-feet)

0.70	1.4	1.10	11.3	1.70	48
.80	2.6	1.20	16.3	2.00	70
.90	5.0	1.30	21.6	2.30	93
1.00	7.8	1.50	33.7		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	42	9.2	3.6	2.6
2								-	38	9.9	3.8	2.6
3								-	36	8.5	3.6	2.4
4								-	36	8.5	4.0	2.4
5								-	32	8.2	4.0	2.4
6								-	31	7.8	4.0	2.4
7								92	27	7.5	3.6	2.5
8								93	30	7.2	3.6	2.6
9								93	25	7.2	3.6	2.4
10								79	24	6.7	3.8	2.4
11								73	23	6.1	3.1	2.4
12								68	21	6.1	3.6	2.4
13								64	18	6.1	3.6	2.4
14								62	17	5.3	3.8	2.2
15								58	20	5.0	3.1	2.2
16								58	15	5.0	2.6	2.5
17								58	13	4.5	2.6	2.6
18								58	16	4.5	2.5	2.6
19								57	14	4.5	2.4	2.5
20								56	11	5.0	2.4	2.5
21								55	9.9	4.5	2.6	2.4
22								52	9.9	4.0	2.6	2.5
23								51	13	4.5	3.6	2.5
24								52	17	4.5	3.1	2.4
25								45	12	4.3	2.6	2.4
26								46	11	4.5	3.1	2.6
27								46	11	5.0	2.6	2.6
28								58	9.9	3.6	2.6	2.8
29								54	11	5.0	2.6	2.6
30								45	9.9	4.5	2.6	2.6
31								42	-	4.5	2.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 7-31	1,515	93	42	60.6	3,000
June	603.6	42	9.9	20.1	1,200
July	181.7	9.9	3.6	5.86	360
August	97.7	4.0	2.4	3.15	194
September	74.4	2.8	2.2	2.48	148
The period	-	-	-	-	4,900

Georgetown Creek near Georgetown, Idaho

Location.- Water-stage recorder, lat. 42°30', long. 111°19', in NE¼ sec. 4, T. 11 S., R. 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 1946. 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, 55 second-feet Apr. 30 (gage height, 1.82 feet); minimum daily, 24 second-feet Apr. 11-13.
1939-46: Maximum discharge, that of Apr. 30, 1946; minimum daily, 18 second-feet many days February to May 1941.

Remarks.- Records good. No diversion above station. Many diversions below station for irrigation. 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 1945 to September 1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	31	29	28	26	25	25	54	46	40	36	a36
2	32	31	29	29	26	25	25	52	a46	40	36	36
3	31	31	29	29	26	25	25	52	a46	40	36	36
4	31	31	29	29	26	25	25	51	a46	40	36	36
5	31	31	29	29	26	25	25	51	a45	40	36	36
6	31	31	28	29	26	25	25	52	a45	40	36	36
7	31	31	28	29	26	25	25	52	h45	40	36	36
8	31	31	28	29	26	25	25	53	46	40	37	36
9	31	30	28	29	26	25	25	53	46	40	37	36
10	31	30	28	29	26	25	25	52	45	40	37	36
11	31	30	28	29	26	25	24	51	45	40	37	35
12	32	30	29	29	26	25	24	50	45	39	38	35
13	31	30	29	29	25	25	24	49	45	39	37	35
14	a31	30	29	29	25	25	25	48	44	39	37	35
15	31	30	29	28	25	25	25	47	44	39	36	35
16	31	30	29	28	25	25	25	46	a43	39	36	35
17	30	30	29	28	25	25	26	46	h42	39	36	35
18	30	30	29	28	25	25	27	46	a42	39	36	34
19	30	30	28	28	25	25	27	46	a42	39	36	34
20	30	30	28	28	25	25	27	46	a42	39	36	34
21	30	30	28	28	25	25	28	46	42	39	36	34
22	30	30	28	28	25	25	28	46	42	39	37	34
23	30	30	a28	28	25	25	30	46	42	38	37	34
24	30	30	a28	28	25	25	32	46	43	38	37	34
25	31	30	a28	28	25	25	35	46	42	38	37	34
26	30	30	28	28	25	25	40	46	42	38	37	34
27	31	30	28	28	25	25	45	46	42	38	37	34
28	31	30	28	28	25	25	50	46	42	38	36	34
29	32	29	28	28	-	25	53	47	40	38	36	a34
30	32	29	28	27	-	25	55	46	40	38	36	a34
31	31	-	28	27	-	25	-	46	-	37	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	957	32	30	30.9	1,900
November	906	31	29	30.2	1,800
December	880	29	28	28.4	1,750
Calendar year 1945	11,113	51	21	30.4	22,060
January	879	29	27	28.4	1,740
February	712	26	25	25.4	1,410
March	775	25	25	25.0	1,540
April	900	55	24	30.0	1,790
May	1,504	54	46	48.5	2,980
June	1,307	46	40	43.6	2,590
July	1,210	40	37	39.0	2,400
August	1,130	38	36	36.4	2,240
September	1,047	36	34	34.9	2,080
Water year 1945-46	12,207	55	24	33.4	24,220

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

Cottonwood Creek near Swan Lake, Idaho

Location.- Water-stage recorder, lat. 42°23', long. 111°55', in SW¼ sec. 16, T. 12 S., R. 39 E., 1 mile downstream from Treasureton Canal head gate, 6½ miles northeast of Swan Lake, and 11½ miles upstream from mouth.

Records available.- March 1939 to September 1946 (discontinued).

Extremes.- Maximum discharge during year, 497 second-feet Apr. 16 (gage height, 3.54 feet), from rating curve extended above 270 second-feet; minimum, 2.4 second-feet Aug. 30.
1939-46: Maximum discharge, that of Apr. 16, 1946; no flow Aug. 17, 18, 1940.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Treasureton Canal is the only diversion above station except some small diversions on meadow land in Cottonwood Valley.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	14					86	167	a33	4.4	5.8	3.2
2	11	14					77	158	a29	4.8	5.3	3.4
3	11	17					70	158	a26	4.8	5.0	4.0
4	11	15		a16			80	154	22	4.8	5.0	4.4
5	11	14	a12			a13	106	149	21	4.8	5.0	5.3
6	11	14					119	142	20	6.0	5.3	5.3
7	11	14					122	129	18	5.3	5.3	5.5
8	11						134	147	14	3.6	5.5	5.3
9	11						111	130	13	3.4	5.8	5.5
10	11						92	121	12	3.2	6.0	5.3
11	11					16	105	102	11	3.4	6.0	5.3
12	11					20	141	95	11	3.2	6.3	5.3
13	12					19	a193	90	11	3.0	7.9	4.4
14	12	a14				18	a245	83	9.8	3.2	6.8	3.0
15	12		a9		a12	19	a297	77	9.5	3.8	6.3	3.6
16	11					18	348	72	9.2	3.4	6.0	5.5
17	11					16	374	70	8.2	4.6	6.0	7.6
18	11					19	379	68	8.6	6.6	a6.0	6.6
19	11			a13		20	384	62	7.1	6.3	a7.0	6.3
20	13					26	395	59	6.3	5.8	7.3	6.3
21	13					29	325	59	5.8	5.5	8.9	6.0
22	12					23	285	56	5.5	5.8	11	5.3
23	12					21	278	58	5.5	7.1	15	3.0
24	12					21	283	64	7.6	7.3	12	2.9
25	12					22	295	46	5.8	8.2	9.8	3.0
26	12	a12				23	300	43	5.5	8.2	10	3.0
27	12		a10			32	273	42	5.0	6.6	9.2	3.0
28	12					51	244	50	4.8	6.0	9.2	3.2
29	11				-	74	229	43	4.8	5.8	7.1	3.4
30	12				-	100	207	a40	4.6	6.0	2.9	3.6
31	14	-			-	104	-	a36	-	6.8	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	360	14	11	11.6	714
November	404	-	-	13.5	801
December	311	-	-	10.0	617
Calendar year 1945	12,537.8	244	4.4	34.4	24,870
January	421	-	-	13.6	835
February	336	-	-	12	666
March	821	104	-	26.5	1,630
April	6,577	395	70	219	13,050
May	2,770	167	36	89.4	5,490
June	354.6	33	4.6	11.8	703
July	161.7	8.2	3.0	5.22	321
August	217.3	15	2.6	7.01	431
September	137.5	7.6	2.9	4.58	273
Water year 1945-46	12,871.1	395	2.6	35.3	25,530

a No gage-height record (stage-discharge relation affected by ice during winter); discharge computed on basis of weather records and records for station near Cleveland.

Cottonwood Creek near Cleveland, Idaho

Location.- Water-stage recorder, lat. 42°20', long. 111°46', in SW¼ sec. 34, T. 12 S., R. 40 E., 500 feet upstream from Cleveland irrigation canal, 2½ miles west of Cleveland, and 4 miles downstream from proposed Cottonwood Dam.

Records available.- November 1938 to September 1946.

Extremes.- Maximum discharge during year, 660 second-feet Apr. 16 (gage height, 3.77 feet), from rating curve extended above 450 second-feet; minimum, 3.1 second-feet Sept. 25. 1938-46: Maximum discharge, that of Apr. 16, 1946; minimum observed, 0.5 second-foot Aug. 17, 1940 (gage height, 0.46 foot).

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Several diversions for irrigation in upper valley above proposed Cottonwood Dam.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a13	16	14	26			124	190	46	11	a11	4.9
2	a12	16	12	22			111	173	45	11	a9.8	5.1
3	a12	17	b11	*22			98	169	38	10	a9.0	5.6
4	a12	17	12	21			105	171	34	10	a9.0	6.2
5	a12	16	16	20		a16	153	171	31	10	a9.0	7.8
6	a12	15	16	19			198	161	28	11	9.2	7.2
7	a12	17	15				195	149	a28	a10	8.8	7.8
8	a12	12	14				220	173	a27	a8.8	8.8	7.8
9	a12	15					185	155	a27	a8.3	9.2	7.5
10	a12	16				a20	143	155	a27	a8.2	9.2	7.2
11	a12	17			b15	24	157	140	a26	a8.4	9.2	6.6
12	a12	16				26	238	130	26	a8.2	9.6	6.2
13	a13	16				27	356	120	24	a8.0	10	6.2
14	13	15				25	401	111	22	a8.6	10	4.4
15	12	17				22	404	106	20	9.2	8.5	4.4
16	12	17	b10			21	474	a98	18	8.5	8.2	7.2
17	12	17				19	502	a92	17	8.5	7.8	8.8
18	12	17				*22	450	a88	18	11	7.8	8.2
19	12	16		b16		28	450	a85	17	11	8.2	7.5
20	12	15			(*)	41	494	a81	15	10	8.5	7.2
21	14	b12				38	387	a79	14	10	8.2	7.2
22	13	b9.0				38	317	a78	13	10	11	7.2
23	12	*7.8				34	286	a81	12	12	14	4.9
24	12	b6.6				34	295	a86	16	12	14	3.8
25	12	7.8	11		a15	32	324	a78	15	13	12	3.5
26	12	9.6	11			36	328	a74	14	13	12	4.7
27	12	13	11			51	301	a82	13	12	11	4.7
28	12	14	13			91	274	a90	12	12	11	4.9
29	12	17	25		-	135	253	a90	12	11	10	4.9
30	12	19	28		-	173	248	62	11	a11	5.9	4.9
31	14	-	26		-	180	-	54	-	a12	4.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	380	14	12	12.3	754
November	435.8	19	6.6	14.5	864
December	395	28	-	12.7	783
Calendar year 1945	16,191.3	317	-	44.4	32,100
January	530	-	-	17.1	1,050
February	420	-	-	15.0	833
March	1,261	180	-	40.7	2,500
April	8,471	502	98	282	16,800
May	3,572	190	54	115	7,080
June	666	46	11	22.2	1,320
July	317.7	13	8.0	10.2	630
August	294.8	14	4.9	9.51	585
September	184.5	8.8	3.5	6.15	366
Water year 1945-46	16,927.8	502	3.5	46.4	33,560

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station near Swan Lake.
b Stage-discharge relation affected by ice.

Treasureton Canal near Swan Lake, Idaho

Location.- Water-stage recorder and Parshall flume, lat. 42°23', long. 111°55', in SE¼ sec. 8, T. 12 S., R. 39 E., 1,000 feet downstream from head gates and 6.8 miles northeast of Swan Lake.

Records available.- April 1939 to September 1946 (discontinued).

Extremes.- Maximum daily discharge during year, 20 second-feet June 8-11, 24; no flow Oct. 1 to May 18, 21-24, Aug. 20-28.
1939-46: Maximum daily discharge observed, 35 second-feet May 26, 1941; no flow at times each year.

Remarks.- Records good. Canal diverts from Cottonwood Creek for irrigation in Battle Creek Basin in vicinity of Treasureton.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	19	15	3.6	5.2
2								0	18	14	3.4	5.0
3								0	17	14	3.2	3.9
4								0	17	14	3.2	4.2
5								0	17	13	3.2	5.0
6								0	17	12	3.2	3.9
7								0	18	11	3.1	3.9
8								0	20	13	2.9	3.7
9								0	20	12	2.9	3.6
10								0	20	12	2.8	3.4
11								0	20	12	2.6	3.2
12								0	19	12	2.6	3.1
13								0	19	12	2.9	3.5
14								0	18	11	2.5	5.3
15								0	18	9.3	2.3	3.9
16								0	17	9.0	2.3	3.9
17								0	17	6.8	2.2	4.2
18								0	18	4.6	2.2	3.6
19								2.0	18	4.6	.9	3.2
20								1.9	18	4.4	0	3.2
21								0	17	4.2	0	3.1
22								0	16	4.0	0	4.2
23								0	16	3.9	0	8.3
24								0	20	4.0	0	8.1
25								2.6	16	4.8	0	6.8
26								7.9	16	4.6	0	5.9
27								12	16	3.9	0	5.7
28								16	15	3.6	0	5.7
29								17	15	3.6	1.4	5.7
30								18	15	3.7	6.1	5.5
31								18	-	4.0	6.1	-

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 1945	901.8	31	0	2.47	1,790
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	95.4	18	0	3.08	189
June	527	20	15	17.6	1,050
July	260.0	15	3.6	8.39	516
August	65.6	6.1	0	2.12	130
September	137.9	8.3	3.1	4.60	274
Water year 1945-46	1,085.9	20	0	2.98	2,160

Mink Creek near Mink Creek, Idaho

Location.- Water-stage recorder, lat. 42°13', long. 111°44', in SE¼ sec. 11, T. 14 S., R. 40 E., 1½ miles southwest of Mink Creek post office and 2½ miles upstream from mouth.

Records available.- April 1943 to September 1946.

Extremes.- Maximum daily discharge during year, 348 second-feet May 7; minimum daily, 1.6 second-feet several days in July and August.
1943-46: Maximum daily discharge, 413 second-feet June 2, 1943 (gage height, 2.74 feet); minimum daily, 0.7 second-foot many days in August and September 1944.

Remarks.- Records good except those for periods of ice effect, no gage-height record, or indefinite stage-discharge relation, which are fair. Twin Lakes Canal and Preston-Riverdale & Mink Creek Canal divert water from creek above station in SE¼ sec. 1, T. 14 S., R. 40 E., for irrigation below station. Many other small diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	58	48	67	43	30	101	290	200	13	2.2	1.7
2	53	58	48	64	44	28	76	247	149	25	2.0	1.7
3	52	a56	48	*62	43	30	59	247	139	3.0	1.9	1.8
4	50	a55	48	b60	44	28	44	278	166	2.6	1.9	1.9
5	50	a55	48	b60	43	28	52	315	183	a2.5	1.8	2.2
6	50	a55	50	b58	*43	28	76	343	166	a2.4	2.0	2.2
7	48	a53	50	b58	43	27	70	348	166	a2.2	2.0	2.2
8	50	50	b49	b56	39	26	70	334	160	2.1	2.1	2.2
9	52	50	b48	b54	b35	28	95	315	156	2.1	1.7	2.2
10	53	47	b47	b50	35	17	101	285	158	2.1	1.6	2.2
11	53	48	b46	b48	35	11	97	249	156	2.1	1.6	2.2
12	54	50	b46	b45	b36	16	105	241	143	2.1	2.2	a2.2
13	53	48	b46	b45	35	47	124	238	129	2.1	4.0	a2.2
14	53	50	b46	b45	37	50	157	219	119	1.9	e23	a2.5
15	52	52	b46	b46	35	42	159	210	99	1.9	e16	a4.0
16	52	54	a46	b47	35	44	172	205	86	2.1	1.9	a6.0
17	53	53	a46	b48	35	40	197	205	84	1.9	1.8	a6.0
18	52	53	a46	b49	34	42	e252	210	81	1.7	1.8	a6.5
19	50	54	a45	b49	28	32	e305	208	72	1.6	1.7	a8.0
20	53	53	a44	b49	27	76	297	212	60	1.6	1.8	a8.0
21	52	52	a45	b48	28	a74	292	221	49	1.6	2.0	a7.0
22	52	52	a48	b48	30	a37	260	232	53	1.7	1.9	5.8
23	50	54	a55	b47	32	11	252	243	25	2.1	1.9	6.9
24	50	54	a58	b46	37	13	258	232	22	2.1	1.8	10
25	50	54	a56	46	a34	15	276	199	21	1.9	1.6	a9.0
26	50	*50	a55	46	a30	19	315	194	12	2.1	1.6	a9.0
27	50	48	a58	b45	a30	50	324	201	6.6	2.0	1.6	a8.0
28	52	48	a70	44	a29	105	318	227	4.0	1.9	1.6	a9.0
29	52	50	a90	43	-	122	315	253	3.7	2.2	1.6	a10
30	54	48	86	42	-	138	320	240	3.1	2.2	1.7	a10
31	60	-	72	42	-	144	-	227	-	2.3	1.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,595	60	40	51.5	3,160
November	1,562	58	47	52.1	3,100
December	1,634	90	44	52.7	3,240
Calendar year 1945	19,800.8	393	1.3	54.2	39,260
January	1,557	67	42	50.2	3,090
February	999	44	27	35.7	1,980
March	1,398	144	11	45.1	2,770
April	5,539	324	44	185	10,990
May	7,666	348	194	247	15,210
June	2,871.4	200	3.1	95.7	5,700
July	98.1	25	1.6	3.16	195
August	94.0	23	1.6	3.03	186
September	152.6	10	1.7	5.09	303
Water year 1945-46	25,166.1	348	1.6	68.9	49,920

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Twin Lakes Canal near Mink Creek, Preston-Riverdale & Mink Creek Canal near Mink Creek, and Cub River near Preston.
b Stage-discharge relation affected by ice.
e Stage-discharge relation indefinite; discharge computed as explained in footnote a.

Twin Lakes Canal near Mink Creek, Idaho

Location.- Water-stage recorder and concrete Parshall flume, lat. 42°14', long. 111°44', in SE¼ sec. 1, T. 14 S., R. 40 E., 200 feet downstream from head gates on Mink Creek and 1 mile west of Mink Creek post office.

Records available.- April 1943 to September 1946.

Extremes.- Maximum daily discharge during year, 128 second-feet May 6; no flow Oct. 2 to Feb. 18.

1943-46: Maximum daily discharge, 151 second-feet May 31, 1943 (gage height, 2.32 feet); no flow at times in each year.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Canal diverts from west side of Mink Creek, 200 feet above station; for storage in Twin Lakes Reservoir and irrigation on west side of Bear River in vicinity of Preston.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3				0	a20	101	119	58	92	41	27
2	0				0	a20	a101	123	78	92	40	27
3	0				0	a20	a101	a122	97	87	41	24
4	0				0	a20	a106	a120	106	81	40	23
5	0				0	a20	120	a125	99	77	38	23
6	0				0	a20	106	a128	98	72	36	a23
7	0				0	a20	105	a125	a110	66	33	a23
8	0				0	a20	105	a120	a115	61	32	a23
9	0				0	a20	77	a118	116	a59	29	a22
10	0				0	a33	55	a120	117	a57	28	a22
11	0				0	a46	53	124	120	a58	26	a22
12	0				0	a46	53	120	117	57	23	a24
13	0				0	a26	54	118	115	56	24	22
14	0				0	a17	56	118	114	53	28	21
15	0				0	a17	81	118	111	49	33	21
16	0				0	a17	94	119	111	47	a27	21
17	0				0	a17	102	120	109	47	a24	21
18	0				0	a17	107	122	107	45	a24	21
19	0				a6	a33	104	118	107	43	a25	21
20	0				a8	a55	107	123	108	a42	a26	21
21	0				a8	a55	113	123	112	a44	29	21
22	0				a8	a80	110	122	109	41	27	21
23	0				a8	a105	116	123	115	41	24	21
24	0				a8	a104	118	123	118	41	26	20
25	0				a17	104	119	115	113	45	25	20
26	0				a20	108	121	115	114	45	25	20
27	0				a20	115	121	117	114	43	25	20
28	0				a20	108	119	116	a116	41	25	20
29	0				-	115	118	82	a112	43	26	20
30	0				-	109	118	61	a108	43	25	20
31	0				-	104	-	58	-	43	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9.3	9.3	0	0.30	18
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1945	16,168.3	138	0	44.3	32,070
January	0	0	0	0	0
February	123	20	0	4.4	244
March	1,611	115	17	52.0	3,200
April	2,961	121	53	93.7	5,870
May	3,575	128	58	115	7,090
June	3,244	120	58	103	6,430
July	1,711	92	41	55.2	3,390
August	901	41	23	29.1	1,790
September	655	27	20	21.8	1,300
Water year 1945-46	14,790.3	128	0	40.6	29,330

a No gage-height record; discharge computed on basis of records for Mink Creek near Mink Creek, Preston-Riverdale & Mink Creek Canal near Mink Creek, and Cub River near Preston.

Preston-Riverdale & Mink Creek Canal near Mink Creek, Idaho

Location.- Water-stage recorder, lat. 42°12', long. 111°44', in NW¼ sec. 12, T. 14 S., R. 40 E., half a mile downstream from head gates and 1 mile southwest of Mink Creek post office.

Records available.- April 1943 to September 1946.

Extremes.- Maximum daily discharge during year, 44 second-feet June 24; no flow Nov. 8 to Apr. 13.

1943-46: Maximum daily discharge; 46 second-feet June 28-30, July 2, 1943; no flow at times in each year.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Canal diverts from east side of Mink Creek for irrigation in vicinity of Mink Creek, Riverdale, and Preston.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.5	1.8					0	a1.4	12	41	39	38
2	2.6	1.6					0	a1.4	26	14	38	39
3	2.6	1.5					0	a1.4	38	37	37	39
4	2.8	1.5					0	a1.5	41	38	36	39
5	3.0	1.5					0	a4.0	40	38	36	a38
6	3.3	1.5					0	a6.0	40	39	37	a37
7	2.6	.8					0	a8.0	40	40	a37	36
8	1.9	0					0	a6.0	40	42	37	35
9	1.8	0					0	a4.0	40	42	35	36
10	2.0	0					0	a12	29	41	37	36
11	2.3	0					0	a25	25	38	36	35
12	2.4	0					0	a25	26	39	35	33
13	2.6	0					0	a28	25	39	33	34
14	2.3	0					a.5	a30	28	39	9.7	33
15	2.1	0					a.6	34	37	40	12	a33
16	2.3	0					a.7	36	40	42	32	a33
17	2.4	0					a.8	36	40	41	36	a33
18	3.2	0					a.9	34	40	41	36	a33
19	3.5	0					a1.0	34	40	42	35	29
20	3.7	0					†1.0	36	38	42	34	29
21	3.4	0					a1.0	39	39	41	33	29
22	3.4	0					a1.0	41	26	43	34	29
23	3.2	0					a1.1	a35	38	43	33	26
24	3.0	0					a1.1	31	44	43	33	24
25	3.0	0					a1.1	33	41	41	33	23
26	3.0	0					a1.2	35	42	38	35	23
27	2.9	0					a1.2	31	42	38	34	a23
28	2.9	0					a1.3	10	40	41	34	a22
29	2.9	0					a1.3	10	39	40	36	a20
30	2.8	0					a1.3	9.3	39	40	37	a20
31	2.0	-					-	9.5	-	40	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	88.4	6.5	1.8	2.85	175
November	10.2	1.8	0	.34	20
December	0	0	0	0	0
Calendar year 1945	3,340.0	42	0	9.15	6,620
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	17.1	1.3	0	.57	34
May	647.5	41	1.4	20.9	1,280
June	1,075	44	12	35.8	2,130
July	1,223	43	14	39.5	2,430
August	1,047.7	39	9.7	33.8	2,080
September	937	39	20	31.2	1,860
Water year 1945-46	5,045.9	44	0	13.8	10,010

† Field estimate.

a No gage-height record; discharge computed on basis of 1 field estimate and records for Mink Creek near Mink Creek and Twin Lakes Canal near Mink Creek.

Cub River near Preston, Idaho

Location.- Water-stage recorder, lat. 42°08', long. 111°41', in SW¼ sec. 5, T. 15 S., R. 41 E., 0.2 mile upstream from head gates of Cub River-Worm Creek Canal, 0.7 mile upstream from forest boundary, and 10 miles east of Preston.

Records available.- March 1940 to September 1946.

Extremes.- Maximum discharge during year, 574 second-feet May 7 (gage height, 3.25 feet); minimum daily, 20 second-feet Feb. 8-10.
1940-46: Maximum discharge, 705 second-feet June 2, 1943 (gage height, 3.83 feet); minimum, 14 second-feet Dec. 20, 1940.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	30	29	29	24	24	76	346	262	140	62	41
2	30	31	28	28	24	24	70	286	255	136	61	40
3	30	29	27	27	24	24	64	296	268	132	61	39
4	30	29	27	27	24	22	63	372	324	126	59	39
5	29	28	27	27	24	22	69	462	388	123	58	39
6	28	31	26	27	23	23	75	540	428	117	58	38
7	28	30	26	26	21	21	75	537	432	115	57	38
8	29	30	25	26	a20	21	74	428	410	110	56	38
9	29	30	b24	26	a20	21	72	414	401	108	55	37
10	31	30	25	25	a20	24	66	367	392	103	55	36
11	30	30	25	b24	a21	31	63	320	384	100	55	36
12	30	29	25	b23	a22	37	65	295	355	96	53	36
13	31	28	25	b23	a22	43	78	313	336	93	53	36
14	31	28	25	b23	a22	39	104	295	320	90	52	35
15	30	28	24	b23	a22	33	126	313	313	88	52	36
16	30	28	b23	b24	a22	31	144	317	302	87	51	37
17	30	28	b24	b24	a23	29	177	367	288	85	50	37
18	30	28	b24	25	a24	32	233	432	268	82	49	36
19	30	28	b21	26	a25	45	280	436	243	80	49	35
20	32	28	b22	26	a26	72	280	432	228	80	49	35
21	32	28	23	25	a26	58	283	436	219	79	48	35
22	31	28	24	26	a25	51	265	446	211	77	48	35
23	30	28	24	26	a25	44	268	418	203	76	49	34
24	29	28	23	26	a25	43	277	384	194	74	48	33
25	29	29	23	26	25	38	315	359	179	73	47	33
26	28	28	24	25	25	40	372	351	164	73	46	33
27	28	28	24	25	25	53	434	347	162	70	44	33
28	28	28	34	25	26	72	434	351	157	67	43	33
29	27	28	43	25	-	80	430	320	150	67	42	33
30	28	29	33	24	-	85	418	281	146	66	42	33
31	31	-	31	24	-	86	-	262	-	64	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	919	32	27	29.6	1,820
November	863	31	28	28.8	1,710
December	808	43	21	26.1	1,600
Calendar year 1945	29,951	438	18	82.1	59,400
January	786	29	23	25.4	1,560
February	655	26	20	23.4	1,300
March	1,268	86	21	40.9	2,520
April	5,744	434	63	192	11,400
May	11,523	540	262	372	22,850
June	8,382	428	146	279	16,620
July	2,877	140	64	92.8	5,710
August	1,593	62	41	51.4	3,160
September	1,079	41	33	36.0	2,140
Water year 1945-46	36,502	540	20	100	72,400

a No gage-height record; discharge computed on basis of weather records and records for stations on nearby streams.
b Stage-discharge relation affected by ice.

Cub River above Maple Creek, near Franklin, Idaho

Location.- Water-stage recorder, lat. 42°03', long. 111°47', in SW¼ sec. 9, T. 16 S., R. 40 E., 1½ miles upstream from Maple Creek and 2½ miles north of Franklin.

Records available.- March 1940 to September 1946.

Extremes.- Maximum discharge during year, 550 second-feet Apr. 27 (gage height, 4.00 feet); minimum daily, 3.2 second-feet Oct. 3-7, 25-29.
1940-46: Maximum discharge, 617 second-feet June 2, 1943 (gage height, 4.34 feet); minimum observed, 0.9 second-foot Aug. 11-13, 1940.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Station is below all diversions from Cub River except Franklin-Cub River pumping station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	6.3	40	50	31	36	166	486	238	6.3	8.7	3.6
2	3.4	5.1	26	48	32	35	144	393	207	5.9	4.2	4.2
3	3.2	4.2	25	46	32	35	132	379	201	5.5	3.8	4.2
4	3.2	4.2	28	44	32	34	126	393	230	5.1	4.2	4.2
5	3.2	4.2	26	43	32	33	141	424	260	5.1	3.8	4.6
6	3.2	4.2	26	40	32	33	162	450	272	5.1	3.8	4.2
7	3.2	4.6	25	40	*31	32	160	436	260	4.6	3.8	4.2
8	3.4	3.8	25	39	29	32	162	388	248	4.2	3.8	4.6
9	3.4	3.6	19	32	28	32	160	361	225	4.2	3.8	4.6
10	3.4	3.8	21	35	28	48	141	298	185	4.2	3.8	4.6
11	3.6	5.1	27	34	29	58	132	221	155	4.2	3.8	23
12	3.6	4.6	22	29	30	68	139	177	132	4.2	3.8	5.5
13	3.8	4.2	22	28	30	90	164	189	105	4.2	3.8	5.1
14	3.6	3.8	23	28	30	85	231	175	86	4.2	3.8	4.6
15	3.6	4.2	22	28	30	68	280	153	82	4.2	3.8	4.6
16	3.6	4.2	17	29	30	60	296	129	78	4.2	3.8	13
17	3.8	4.2	25	30	30	56	324	157	72	4.2	3.8	33
18	3.6	4.2	29	32	29	59	370	219	60	4.2	3.8	25
19	3.6	4.6	22	33	28	81	453	221	45	4.2	3.8	13
20	3.6	3.8	23	34	28	159	448	210	38	4.2	3.8	5.1
21	3.6	3.6	29	34	29	131	429	195	34	4.2	3.6	4.6
22	3.4	3.4	40	34	30	107	393	203	31	4.6	3.6	4.2
23	3.4	3.4	42	34	32	92	370	205	28	4.6	4.2	4.6
24	3.4	4.2	36	33	34	90	375	234	29	4.6	3.8	4.2
25	3.2	7.6	34	33	36	81	407	193	25	4.2	3.8	4.2
26	3.2	7.6	35	33	36	81	468	164	21	5.5	4.2	4.6
27	3.2	17	34	32	36	103	532	213	14	4.6	3.8	4.2
28	3.2	32	50	32	36	144	529	331	6.7	4.6	7.8	4.2
29	3.2	43	79	32	-	187	511	322	6.7	4.6	3.8	4.2
30	3.4	44	75	31	--	197	529	309	6.3	5.1	8.4	4.2
31	5.5	-	60	31	-	209	-	278	-	5.1	3.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	108.3	5.5	3.2	3.49	215
November	252.7	44	3.4	8.42	501
December	1,007	79	17	32.5	2,000
Calendar year 1945	23,713.4	487	2.4	65.0	47,030
January	1,081	50	28	34.9	2,140
February	870	36	28	31.1	1,730
March	2,556	209	32	82.4	5,070
April	8,874	532	126	296	17,600
May	8,506	486	129	274	16,870
June	3,380.7	272	6.3	113	6,710
July	143.9	6.3	4.2	4.64	285
August	132.3	8.7	3.6	4.27	262
September	218.1	33	3.6	7.27	433
Water year 1945-46	27,130	532	3.2	74.3	53,810

* Winter discharge measurement made on this day.
Note.- No gage-height record Dec. 30 to Jan. 4, Jan. 14 to Mar. 9, May 17-20, June 4-9; discharge computed on basis of 1 discharge measurement and records for Cub Creek near Preston minus Cub River-Worm Creek, Preston-Whitney, and Cub River Canals near Preston.

Cub River-Worm Creek Canal near Preston, Idaho

Location.- Water-stage recorder, lat. 42°08', long. 111°45', in NW¼ sec. 14, T. 15 S., R. 40 E., a quarter of a mile upstream from divide between Cub River and Worm Creek Basins, 5 miles downstream from head gates, and 7 miles northeast of Preston.

Records available.- April 1943 to September 1946.

Extremes.- Maximum daily discharge during year, 69 second-feet May 23, June 9, 10; no flow Sept. 2-30.
1943-46: Maximum daily discharge, 82 second-feet May 24, 1943; no flow at times each year.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Several diversions between gage and head of canal for irrigation in Cub River Basin. Records show diversion to Worm Creek Basin from Cub River except for one small diversion below gage. Canal diverts from Cub River in NW¼ sec. 8, T. 15 S., R. 41 E.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	8.2	4.4	9.2	a5	a6.5	6.1	0.7	37	50	18	0.6
2	9.0	8.2	b15	8.5	a5	a6	5.4	.8	36	50	16	0
3	9.0	8.5	b15	*8.0	a5	a6	4.2	5.1	40	46	17	0
4	8.8	8.2	a16	8.3	a5	a6	4.0	21	51	42	16	0
5	8.5	8.2	a15	8.3	a5	a6	4.6	25	56	42	15	0
6	8.2	8.8	a15	8.0	*b5	a5	4.0	30	a62	42	14	0
7	8.2	b8.8	a15	7.8	b4	a5	3.5	41	67	39	12	0
8	8.2	b8.8	a15	8.0	b2.5	a5	4.2	41	66	38	12	0
9	8.2	b8.8	b12	b6	b3	a5	6.1	48	69	36	11	0
10	8.2	8.8	b11	b6.5	b2	a6	4.7	46	69	34	10	0
11	8.5	9.0	b12	b6	b2	8.5	3.3	47	68	33	10	0
12	8.8	8.8	b12	b6	b2	10	3.0	50	68	30	7.6	0
13	8.8	8.8	b11	b6	b2	12	2.7	52	68	28	3.5	0
14	8.8	b8.8	b12	b6.5	b2	9.2	2.4	51	65	26	3.1	0
15	8.8	8.8	b12	b6.5	b2	7.1	2.1	51	60	24	1.8	0
16	8.8	8.8	b15	b7	b2	6.3	1.5	55	60	21	1.8	0
17	8.8	8.8	b10	b7	b2	6.3	a1.4	60	61	21	1.7	0
18	8.8	8.5	b5	b7	b2	7.4	a1.2	65	60	19	1.8	0
19	8.8	8.8	b3.5	b6.5	b2	14	a1.1	67	63	16	1.8	0
20	9.0	b8.8	b3	b5.5	b2	21	1.0	66	65	14	1.9	0
21	8.8	b8.8	b5	b5.5	b2.5	13	1.0	68	63	13	1.8	0
22	8.8	b8.8	b5.5	b6	b2.5	10	.9	68	62	11	1.8	0
23	8.8	b8.8	b7	b6	b2.5	9.0	.8	69	62	11	1.9	0
24	8.8	b9.0	b7	a6	b3	8.5	.8	51	62	11	1.9	0
25	8.8	9.0	b6	a6	b4.5	7.6	.8	53	60	10	1.8	0
26	9.0	9.0	b6	a6	b5.5	*9.2	.7	61	57	9.5	1.9	0
27	8.8	*9.0	b6	a5	b6.5	15	.8	61	54	7.6	1.8	0
28	8.5	6.6	7.6	a5	a6.5	18	.6	26	54	10	1.8	0
29	8.2	.6	12	a6	-	11	.6	17	54	20	1.7	0
30	8.8	.3	11	a5	-	9.7	.6	6.1	52	19	1.8	0
31	8.8	-	9.7	a5	-	6.9	-	8.1	-	18	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	269.1	9.0	8.2	8.68	534
November	243.1	9.0	.3	8.10	482
December	311.7	16	3	10.0	618
Calendar year 1945	6,044.3	60	.3	16.6	11,970
January	204.1	9.2	5	6.58	405
February	95.0	6.5	2	3.39	188
March	276.2	21	5	8.91	548
April	74.1	6.1	.6	2.47	147
May	1,310.8	69	.7	42.3	2,600
June	1,771	69	36	59.0	3,510
July	791.1	50	7.6	25.5	1,570
August	196.0	18	1.7	6.32	389
September	.6	.6	0	.02	1.2
Water year 1945-46	5,542.8	69	0	15.2	10,990

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Worm Creek near Preston, or interpolated.
b Stage-discharge relation affected by ice.

Preston-Whitney Canal near Preston, Idaho

Location.- Staff gage and Cippoletti weir in concrete flume, lat. 42°06', long. 111°44', in NE¼ sec. 24, T. 15 S., R. 40 E., 500 feet downstream from head gates and 7½ miles east of Preston.

Records available.- April to September 1946. April 1944 to September 1946 (irrigation seasons only) in Bear River Hydrometric Data reports.

Extremes.- Maximum daily discharge during period, 42 second-feet May 9; no flow at times.

Remarks.- Records fair. Canal diverts from west side of Cub River for irrigation in vicinity of Preston.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	4	3.4	21	2.0	1.0
2							0	4	3.0	21	2.1	1.0
3							0	12	3.2	21	2.1	1.0
4							0	21	3.2	21	2.0	.5
5							0	21	3.2	21	2.1	0
6							0	21	3.2	21	2.1	.8
7							0	21	3.0	21	2.1	0
8							0	31	13	21	2.0	0
9							0	42	22	20	2.3	0
10							0	41	38	20	2.6	0
11							0	40	38	20	2.4	0
12							0	28	38	20	9.7	0
13							0	.7	38	20	9.7	0
14							0	0	37	20	9.7	0
15							0	26	37	20	9.7	0
16							0	39	37	19	9.7	0
17							0	39	37	19	9.7	0
18							1	40	36	19	8.0	0
19							2	40	36	19	8.0	0
20							2	40	34	19	8.0	0
21							2	40	34	19	6.9	0
22							2	40	34	19	6.7	0
23							2	40	32	19	6.4	0
24							2	11	31	19	6.4	0
25							2	30	14	19	6.4	0
26							3	30	24	19	5.9	0
27							4.5	14	24	19	5.9	0
28							4.5	14	24	2.3	5.9	0
29							4.5	3.9	24	2.3	5.9	0
30							4.5	3.6	21	2.3	5.9	0
31							-	3.4	-	2.1	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	36.0	4.5	0	1.20	71
May	740.6	42	0	23.9	1,470
June	725.2	38	3.0	24.2	1,440
July	545.0	21	2.1	17.6	1,080
August	169.3	9.7	1.0	5.46	336
September	4.3	1.0	0	.14	8.5
The period	-	-	-	-	4,400

Cub River Canal near Preston, Idaho

Location.- Staff gage in concrete flume, lat. 42°04', long. 111°47', in SE¼ sec. 4, T. 16 S., R. 40 E., 1¼ miles downstream from head and 5½ miles southeast of Preston.

Records available.- April to September 1946. April 1944 to September 1946 (irrigation season only), in Bear River Hydrometric Data reports. Irrigation season only (fragmentary) 1927-43, in files of Cub River Irrigation Co. at Lewiston, Utah.

Extremes.- Maximum daily discharge during period, 134 second-feet May 17; no flow Apr. 1 to May 4.

Remarks.- Records fair. No diversions above station. Canal diverts from Cub River in SW¼ sec. 3, T. 16 S., R. 40 E., for irrigation in vicinity of Preston, Idaho, and Lewiston, Utah.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	45	61	44	38
2								0	45	59	45	37
3								0	45	58	43	37
4								0	52	57	42	35
5								15	62	54	41	35
6								30	62	52	44	35
7								30	86	50	42	34
8								28	95	48	40	34
9								28	95	46	40	34
10								52	102	48	43	33
11								67	104	45	41	32
12								83	115	45	39	32
13								98	115	44	39	31
14								97	122	46	40	31
15								108	122	45	41	30
16								109	122	45	39	30
17								134	122	39	38	30
18								130	119	39	38	30
19								128	114	43	35	30
20								127	104	43	36	30
21								128	83	45	35	31
22								130	83	45	38	32
23								128	81	45	40	30
24								99	81	47	39	30
25								95	78	41	38	30
26								96	66	44	38	29
27								101	66	46	40	29
28								94	77	43	40	29
29								94	67	46	39	29
30								96	65	43	38	29
31								94	-	43	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	
February	-	-	-	-	-
March	-	-	-	-	-
April	0	0	0	0	0
May	2,419	134	0	78.0	4,800
June	2,595	122	45	86.5	5,150
July	1,455	61	39	46.9	2,890
August	1,233	45	35	39.8	2,450
September	956	38	29	31.9	1,900
The period	-	-	-	-	17,190

Maple Creek near Franklin, Idaho

Location.- Water-stage recorder, lat. 42°02'30", long. 111°45'00", in NW¼ sec. 14, T. 16 S., R. 40 E., 30 feet downstream from Deep Creek and 3 miles east of Franklin. Prior to Sept. 27, staff gage at same site and datum.

Records available.- April to September 1946.

Extremes.- Maximum discharge observed during period, 224 second-feet Apr. 19 (gage height, 2.40 feet); minimum discharge observed, 1.5 second-feet Sept. 24 (gage height, 0.24 feet).

Remarks.- Records fair. A few small diversions above station for irrigation. Station is above principal diversions for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							a60	96	78	14	5.4	4.2
2							a51	110	84	14	5.2	3.8
3							a42	103	80	9.3	5.2	3.3
4							a37	100	78	12	5.2	3.0
5							a39	111	76	9.0	5.6	3.0
6							a47	120	78	7.6	5.2	3.0
7							a52	93	82	7.6	5.1	3.0
8							a55	104	90	6.7	4.5	3.0
9							a51	106	78	6.0	4.2	3.0
10							a42	117	62	6.0	4.5	3.0
11							a39	103	70	7.6	4.5	3.0
12							a40	96	55	7.3	4.2	2.8
13							a51	66	52	7.6	3.8	2.8
14							a98	55	39	7.3	4.0	3.0
15							a127	51	36	7.6	3.8	3.0
16							142	53	40	7.0	4.5	3.8
17							a172	52	36	6.0	4.5	2.8
18							188	50	32	6.3	4.5	2.4
19							224	60	31	5.4	4.2	2.4
20							187	50	38	6.0	4.2	2.2
21							158	51	32	6.0	3.6	2.4
22							130	55	34	5.7	4.5	2.4
23							113	66	26	5.2	4.5	2.1
24							137	64	30	6.0	4.5	1.6
25							123	58	32	6.0	4.6	1.6
26							144	55	26	6.7	4.5	a1.6
27							137	70	24	7.6	4.8	1.6
28							123	66	20	6.0	4.4	2.1
29							134	72	19	7.0	4.5	2.2
30							116	74	16	6.0	4.6	2.7
31							-	82	-	5.2	4.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,059	224	37	102	6,070
may	2,409	120	50	77.7	4,780
June	1,474	90	16	49.1	2,920
July	227.7	14	5.2	7.34	452
August	141.6	5.6	3.6	4.57	281
September	80.8	4.2	1.6	2.69	160
The period	-	-	-	-	14,660

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

Worm Creek near Preston, Idaho

Location.- Water-stage recorder, lat. 42°08', long. 111°46', in NW¼ sec. 10, T. 15 S., R. 40 E., 0.3 mile upstream from backwater of Preston-Whitney Reservoir and 6 miles northeast of Preston.

Records available.- March 1943 to April 1946 (discontinued).

Extremes.- Maximum discharge during period October to April, 106 second-feet Mar. 28 (gage height, 3.09 feet), from rating curve extended above 41 second-feet; minimum daily, 1.3 second-feet Nov. 30.
1943-46: Maximum discharge, that of Mar. 28, 1946; minimum daily, 0.1 second-foot Oct. 10, 1943.

Remarks.- Records good. Several small diversions above station for irrigation. Cub River-Worm Creek Canal, which discharges into Worm Creek 1 mile above station, diverts from Cub River for storage and irrigation in Worm Creek Basin.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	7.4	2.3	12	a5.5	7.4	36					
2	8.3	6.9	16	11	a5.4	6.7	31					
3	10	6.7	16	10	a5.4	6.7	26					
4	9.4	6.5	18	10	a5.3	6.5	24					
5	9.2	6.5	17	10	5.2	6.5	27					
6	9.2	7.2	17	10	5.2	5.6	32					
7	9.4	7.4	17	9.2	4.5	6.1	28					
8	9.4	6.7	17	9.0	3.0	5.6	28					
9	8.5	6.7	13	7.2	2.4	5.6	29					
10	6.3	6.7	12	7.8	2.5	7.6	24					
11	6.5	7.4	13	7.2	2.4	12	20					
12	6.5	7.2	13	6.5	2.2	17	22					
13	6.5	8.0	12	6.7	2.2	26	28					
14	6.5	10	13	8.0	2.3	22	43					
15	6.3	11	13	7.4	2.3	14	46					
16	6.3	11	17	7.8	2.4	13	-					
17	6.3	10	12	8.0	2.5	11	-					
18	6.3	10	4.5	7.8	3.2	13	-					
19	6.1	10	4.1	7.2	2.5	28	-					
20	6.3	10	3.6	6.1	2.4	61	-					
21	6.5	10	5.6	6.3	2.9	38	-					
22	6.1	8.5	6.1	6.7	3.2	29	-					
23	a6.1	11	7.8	6.3	3.0	25	-					
24	a6.0	11	7.8	6.7	3.6	24	-					
25	a5.9	all	7.2	6.7	5.2	22	-					
26	5.8	11	7.2	6.5	6.3	29	-					
27	5.6	11	7.2	5.4	7.4	47	-					
28	5.8	9.4	11	5.4	7.4	66	-					
29	6.3	1.7	22	7.2	-	59	-					
30	6.3	1.3	16	5.2	-	53	-					
31	7.5	-	13	5.6	-	48	-					

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	222.2	11	5.6	7.17	441
November	249.2	11	1.3	8.31	494
December	361.4	22	2.3	11.7	717
Calendar year 1945	7,089.1	69	.7	19.4	14,070
January	236.9	12	5.2	7.64	470
February	107.8	7.4	2.2	3.85	214
March	721.3	61	5.6	23.3	1,430
April 1-15	444	46	20	29.6	881
May	-	-	-	-	-
June	-	-	-	-	-
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	4,650

a No gage-height record; discharge interpolated.

High Creek near Richmond, Utah

Location.- Water-stage recorder, lat. 41°59', long. 111°45', in SW¼SE¼ sec. 5, T. 14 N., R. 2 E., at forest boundary 2 miles downstream from North Fork and 5 miles northeast of Richmond.

Records available.- April to September 1946. April 1944 to September 1946 (irrigation seasons only) in Bear River Hydrometric Data reports.

Extremes.- Maximum discharge during period, 169 second-feet Apr. 26 (gage height, 2.15 feet); minimum, 8.7 second-feet Sept. 30.

Remarks.- Records good except those for periods of no gage-height record and those below 40 second-feet, which are fair. No diversions above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							a25	127	102	66	24	13
2							a24	114	105	64	24	12
3							a22	119	112	61	23	12
4							a20	130	130	59	22	12
5							a20	135	148	58	21	12
6							a23	140	148	54	20	12
7							a26	139	139	52	20	12
8							a28	132	131	51	19	12
9							a27	127	132	49	19	11
10							a25	126	134	47	19	11
11							a23	121	127	46	18	10
12							a28	114	121	44	19	9.3
13							a40	105	117	43	18	9.3
14							a70	107	114	42	17	9.3
15							a100	102	112	40	17	10
16							a110	99	109	38	a17	11
17							125	107	103	36	a16	11
18							139	112	96	34	a16	11
19							154	114	87	33	a16	11
20							154	114	85	32	a15	11
21							143	117	86	32	15	11
22							128	122	87	32	15	11
23							123	116	86	32	16	11
24							127	107	84	31	15	11
25							140	102	74	30	14	10
26							155	104	72	30	14	10
27							159	107	73	29	14	10
28							152	116	72	27	14	10
29							145	110	70	27	13	11
30							145	104	66	26	12	9.3
31							-	103	-	25	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,600	159	20	86.7	5,160
May	3,592	140	99	116	7,120
June	3,122	148	66	104	6,190
July	1,270	66	25	41.0	2,520
August	534	24	12	17.2	1,060
September	326.2	13	9.3	10.9	647
The period	-	-	-	-	22,700

a No gage-height record; discharge computed on basis of unpublished records for station below diversions (discontinued Apr. 18), or interpolated.

Little Bear River near Paradise, Utah

Location.- Water-stage recorder, lat. 41°35'25", long. 111°51'10", in SE¼ 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. Prior to Nov. 27, at site 150 feet upstream, at different datum.

Drainage area.- 203 square miles.

Records available.- October 1938 to September 1946 in reports of Geological Survey. January 1936 to October 1939 (fragmentary) in reports of Little Bear River water commissioner.

Extremes.- Maximum discharge during year, 926 second-feet Apr. 19 (gage height, 5.15 feet), from rating curve extended above 720 second-feet; minimum, 18 second-feet Aug. 22.

1938-46: Maximum discharge, that of Apr. 19, 1946; minimum, 4 second-feet Aug. 14, 1940.

Remarks.- Records good except those for periods of ice effect, indefinite stage-discharge relation, or no gage-height record, which are fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	69	66	122	60	76	250	497	188	36	25	28
2	49	61	56	104	60	82	250	409	174	34	26	28
3	a49	58	56	98	60	86	209	364	157	30	25	27
4	a48	56	61	92	61	*81	194	347	148	30	25	26
5	a47	55	62	94	58	79	268	347	136	30	25	25
6	a47	78	60	88	58	82	353	358	116	28	23	24
7	a46	76	61	81	58	79	430	327	96	29	22	25
8	a45	64	60	84	*58	79	376	296	79	29	21	25
9	45	61	b52	*70	b56	88	418	298	70	29	20	25
10	45	62	b54	b68	58	.04	336	296	64	29	21	25
11	45	66	56	b68	56	145	278	263	57	29	21	26
12	45	64	54	b67	55	150	359	221	53	29	22	28
13	46	62	54	b65	55	418	e407	199	52	28	22	27
14	46	60	54	b64	54	224	e503	188	49	28	22	24
15	52	66	b52	b62	b54	140	e555	178	48	27	22	27
16	60	83	b50	b62	54	125	e636	176	44	25	24	29
17	61	74	49	b64	55	116	e697	174	44	25	23	32
18	58	69	b48	67	55	137	e771	182	44	26	21	35
19	56	69	b45	*69	55	205	e848	180	46	29	22	34
20	62	*67	46	67	55	376	e830	166	44	29	24	33
21	62	55	45	64	55	216	e783	157	39	27	21	31
22	61	50	46	66	58	171	e671	157	35	26	21	30
23	60	55	52	64	60	165	e642	170	36	26	21	33
24	58	60	42	66	70	194	e621	182	40	25	21	34
25	58	61	37	66	86	156	e636	155	38	24	25	35
26	55	60	60	62	81	156	e653	139	39	28	29	35
27	55	60	60	61	79	230	659	144	39	27	29	45
28	52	*61	162	b61	82	342	624	205	38	25	29	45
29	49	64	400	61	-	353	581	238	36	25	29	45
30	52	67	220	60	-	336	569	214	35	26	29	44
31	81	-	145	*60	-	359	-	205	-	26	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,645	81	45	53.1	3,260
November	1,913	83	50	63.8	3,790
December	2,365	400	37	76.3	4,690
Calendar year 1945	37,113	650	13	102	73,630
January	2,247	122	60	72.5	4,460
February	1,760	86	54	60.9	3,380
March	5,550	418	76	179	11,010
April	15,407	848	194	514	30,560
May	7,432	497	139	240	14,740
June	2,084	188	35	69.5	4,130
July	864	36	24	27.9	1,710
August	737	29	20	23.8	1,460
September	930	45	24	31.0	1,840
Water year 1945-46	42,880	848	20	117	85,030

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
e Stage-discharge relation indefinite; discharge computed on basis of 2 discharge measurements and records for station near Hyrum.

Hyrum Reservoir near Hyrum, Utah

Location.- Mercury indicating gage, lat. 41°37'30", long. 111°52'30", in SE¼NE¼ sec. 7, T. 10 N., R. 1 E., at Hyrum Dam on Little Bear River, 1 mile southwest of Hyrum. Datum of gage is at mean sea level.

Drainage area.- 220 square miles.

Records available.- October 1938 to September 1946.

Extremes.- Maximum contents during year, 15,280 acre-feet most of period Apr. 17 to June 12 (elevation, 4,672.0 feet); minimum, 6,230 acre-feet Sept. 23-28 (elevation, 4,651.0 feet).
1938-46: Maximum contents, 15,280 acre-feet (revised) for periods in each year (elevation, 4,672.0 feet); minimum, 1,130 acre-feet (revised) Oct. 5, 1940 (elevation, 4,634.7 feet).

Remarks.- Reservoir is formed by earth-fill dam; storage began in 1935. Usable capacity, 15,280 acre-feet (revised) between elevations 4,629.6 feet (sill of outlet canal) and 4,672 feet (top of spillway gates). Dead storage, 3,405 acre-feet (revised) (below elevation 4,629.6 feet, sill of outlet canal). Figures given herein represent usable contents. Elevation of spillway crest, 4,660 feet. Water used for irrigation on Hyrum project.

Revised capacity table (elevation, in feet, and usable contents, in acre-feet)
(Furnished by Bureau of Reclamation)

4,630	80	4,642	3,170	4,654	7,380	4,666	12,480
4,632	490	4,644	3,800	4,656	8,180	4,668	13,400
4,634	950	4,646	4,460	4,658	9,000	4,670	14,340
4,636	1,460	4,648	5,150	4,660	9,840	4,672	15,280
4,638	2,000	4,650	5,860	4,662	10,700		
4,640	2,570	4,652	6,610	4,664	11,580		

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,300	10,260	10,440	10,700	10,570	10,700	12,530	15,040	15,280	13,500	9,880	6,990
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	10,260	-	10,740	10,570	10,650	-	-	15,280	-	9,670	-
4	-	-	10,520	-	-	-	-	14,250	-	-	-	-
5	8,460	-	-	10,830	-	10,650	12,260	-	15,280	-	9,500	-
6	-	-	-	-	-	-	-	15,040	-	-	-	6,610
7	-	10,350	10,520	-	10,610	-	-	15,280	15,280	-	9,290	-
8	-	-	-	10,740	-	-	-	15,280	-	12,800	-	-
9	8,630	-	-	-	-	-	-	15,280	15,280	-	9,040	6,460
10	-	-	10,520	-	-	10,740	12,900	-	-	12,530	-	-
11	-	10,440	10,520	-	10,570	-	-	-	15,280	-	-	6,380
12	8,750	-	10,520	-	-	-	-	15,280	15,280	12,260	8,670	-
13	-	-	-	-	-	10,870	-	-	-	-	8,540	-
14	8,950	-	-	10,650	10,610	-	12,990	15,280	-	-	-	6,340
15	-	10,440	10,520	-	-	-	14,010	-	15,140	-	8,420	-
16	-	-	-	-	-	11,180	-	15,280	-	-	-	-
17	-	-	-	-	-	-	15,280	-	14,950	11,630	-	-
18	9,160	-	-	-	-	11,310	15,280	15,280	-	-	-	6,310
19	-	-	-	10,610	10,700	-	-	-	14,760	-	7,820	-
20	-	10,440	10,520	-	-	11,400	15,280	15,280	14,720	11,270	-	6,270
21	-	-	-	-	10,740	-	-	-	-	-	-	-
22	9,460	-	-	10,610	-	-	15,280	15,280	14,480	-	7,660	-
23	-	10,440	-	-	10,740	11,580	-	-	-	-	-	6,230
24	-	-	10,520	-	-	-	15,280	15,280	14,290	-	7,620	-
25	-	10,440	-	10,570	10,700	-	15,280	15,280	14,200	10,650	-	-
26	9,750	-	10,610	-	-	11,810	15,280	-	14,060	-	7,460	6,230
27	-	-	-	-	10,740	-	-	15,280	-	-	7,380	-
28	-	10,440	10,700	10,570	10,740	-	15,280	-	-	10,350	-	6,230
29	-	-	-	-	-	11,900	15,140	-	13,730	-	7,220	-
30	-	10,440	10,700	-	-	11,990	15,040	15,280	13,590	-	-	6,310
31	10,140	-	10,650	10,570	-	12,170	-	15,280	-	10,010	7,070	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	56.2	8,260	-
Oct. 31	60.7	10,140	+1,880
Nov. 30	61.4	10,440	+300
Dec. 31	61.9	10,650	+210
Calendar year 1945	-	-	+3,350
Jan. 31	61.7	10,570	-80
Feb. 28	62.1	10,740	+170
Mar. 31	65.3	12,170	+1,430
Apr. 30	71.5	15,040	+2,870
May 31	72.0	15,280	+240
June 30	68.4	13,590	-1,690
July 31	60.4	10,010	-3,580
Aug. 31	53.2	7,070	-2,940
Sept. 30	51.2	6,310	-760
Water year 1945-46	-	-	-1,950

Note.- Capacity rating revised in 1946 showing usable contents. Records published prior to 1946 give total contents.

Little Bear River near Hyrum, Utah

Location.- Water-stage recorder, lat. 41°38'00", long. 111°53'15", in NW¼SW¼ sec. 6, T. 10 N., R. 1 E., 800 feet upstream from road bridge, 1¼ miles downstream from Hyrum Dam, and 2 miles west of Hyrum.

Drainage area.- 222 square miles.

Records available.- October 1938 to September 1946.

Extremes (regulated).- Maximum discharge during year, 885 second-feet Apr. 20 (gage height, 4.55 feet); minimum daily, 1.6 second-feet Oct. 28, 29.
1938-46: Maximum discharge, that of Apr. 20, 1946; minimum daily, 0.6 second-foot Nov. 23-25, 1943.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Many diversions above station for irrigation. Flow regulated by Hyrum Reservoir (see preceding page).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	18	68	189	64	77	266	526	207	6.6	3.5	2.4
2	5.0	28	67	165	64	77	293	491	162	5.5	3.2	2.8
3	5.0	37	66	145	63	80	286	477	145	5.2	2.8	3.0
4	5.0	38	66	131	66	80	275	316	112	5.2	3.0	2.8
5	5.5	40	66	124	66	78	268	48	112	5.0	2.4	2.6
6	5.8	46	67	117	63	80	270	48	76	4.5	1.8	2.4
7	5.0	56	67	109	63	80	282	155	33	4.0	1.8	2.2
8	4.8	57	67	104	63	77	291	306	30	4.8	1.8	3.0
9	4.3	56	66	98	61	77	306	304	13	4.2	3.2	3.0
10	4.3	54	63	94	61	82	326	304	11	5.5	3.8	2.2
11	3.4	52	62	90	61	92	331	259	9.4	5.5	3.8	2.2
12	3.0	50	62	84	61	115	318	213	9.4	5.0	3.5	2.4
13	2.8	50	a62	77	59	180	308	191	9.0	4.2	3.5	3.5
14	2.6	50	a62	77	59	266	328	134	8.3	4.5	3.0	4.5
15	2.6	54	a62	77	59	230	383	134	8.0	4.2	3.0	3.8
16	2.6	58	a60	74	59	193	515	133	7.6	4.5	2.6	3.5
17	2.5	a63	a59	74	59	165	632	131	7.2	4.8	2.8	3.5
18	2.5	a66	a57	76	59	148	696	131	6.9	4.2	3.0	3.0
19	2.5	a66	a56	74	59	159	802	129	6.9	4.0	2.0	3.5
20	2.3	66	a55	72	59	213	849	128	6.6	3.8	1.8	2.8
21	2.3	63	a55	72	59	241	831	112	6.2	4.2	1.8	4.4
22	2.1	61	a55	70	61	217	723	80	6.2	3.8	2.0	11
23	2.1	58	a55	70	62	195	688	39	6.2	3.0	3.5	10
24	1.9	57	a55	68	63	193	668	78	6.2	2.6	4.5	5.8
25	1.7	57	a55	68	68	185	636	126	5.5	2.6	3.5	4.8
26	1.7	61	a55	68	71	172	633	122	5.8	2.8	3.2	3.8
27	1.7	64	a55	68	74	172	639	121	5.2	3.0	3.2	3.2
28	1.6	63	a120	66	77	108	639	134	5.2	4.0	5.0	3.0
29	1.6	64	234	66	-	119	624	197	5.2	3.8	4.2	2.8
30	1.7	67	254	64	-	174	604	199	6.6	3.5	3.0	2.6
31	5.9	-	220	64	-	203	-	247	-	3.5	2.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	100.9	5.9	1.6	3.25	200
November	1,620	67	18	54.0	3,210
December	2,473	254	55	79.8	4,910
Calendar year 1945	28,809.5	632	1.6	78.9	57,150
January	2,795	189	64	90.2	5,540
February	1,763	77	59	63.0	3,500
March	4,528	266	77	146	8,980
April	14,710	849	266	490	29,180
May	6,013	526	39	194	11,930
June	1,038.6	207	5.2	34.6	2,060
July	132.0	6.6	2.6	4.26	262
August	92.6	5.0	1.8	2.99	184
September	110.5	11	2.2	3.68	219
Water year 1945-46	35,376.6	849	1.6	96.9	70,180

a No gage-height record; discharge computed on basis of recorded range in stage and record of gate changes at Hyrum Dam.

East Fork Little Bear River near Avon, Utah

Location.- Water-stage recorder, lat. 41°31', long. 111°45', in NE¼ sec. 17, T. 9 N., R. 2 E., 0.2 mile downstream from Porcupine Creek, 0.4 mile upstream from Pole Creek, and 4 miles east of Avon. Prior to Nov. 1, 1945, at site 0.3 mile downstream at different datum.

Records available.- January 1938 to September 1946. April 1927 to September 1930 at site 2 miles downstream, records not equivalent (statement that records at downstream site were equivalent published in previous reports is erroneous).

Extremes.- Maximum discharge during year, 960 second-feet Apr. 18 (gage height, 5.30 feet), from rating curve extended above 360 second-feet by logarithmic plotting: minimum, 12 second-feet Oct. 23, 24.
1927-30, 1938-46: Maximum discharge, that of Apr. 18, 1946; minimum recorded, 5.1 second-feet Dec. 5, 8, 11, 12, 16, 1940.

Remarks.- Records good. No diversion above station. Many diversions below station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	16	17	33	17	25	91	245	71	32	20	16
2	14	16	17	30	17	26	84	212	70	31	20	16
3	14	16	17	27	17	26	76	202	66	30	20	15
4	14	16	17	26	17	26	76	196	66	30	19	15
5	14	16	17	26	17	26	90	193	65	30	19	15
6	14	19	17	23	17	27	127	193	65	29	19	15
7	14	18	17	22	17	27	139	182	63	28	18	15
8	14	17	17	23	17	26	120	167	60	28	18	15
9	14	16	17	22	16	26	120	170	59	27	18	15
10	14	16	16	22	17	29	105	162	57	26	18	15
11	14	16	17	21	17	32	105	139	55	26	18	15
12	14	16	17	20	17	36	149	125	53	26	18	14
13	14	16	17	20	16	41	245	116	52	26	19	14
14	14	15	16	20	16	45	373	112	50	25	18	14
15	14	16	17	20	16	42	458	107	48	24	18	14
16	15	16	17	20	16	40	498	105	46	23	17	15
17	15	16	17	19	16	38	532	101	45	23	17	16
18	14	16	17	19	17	39	555	103	45	23	17	15
19	14	16	15	19	17	42	514	101	44	23	17	15
20	14	16	16	18	17	49	454	97	42	23	17	15
21	14	15	17	18	17	54	390	93	40	23	17	15
22	14	15	18	18	17	57	329	91	39	23	17	15
23	14	15	19	18	17	58	341	93	38	22	17	15
24	12	15	18	18	19	57	369	95	40	22	17	15
25	13	15	18	18	25	55	398	82	38	22	17	14
26	13	16	19	18	26	53	434	77	37	23	16	14
27	13	16	19	18	26	55	434	77	35	22	16	14
28	13	16	23	18	28	71	341	90	34	21	16	14
29	13	16	45	18	-	97	317	86	33	20	16	14
30	14	17	46	18	-	101	297	78	33	20	16	14
31	15	-	38	17	-	99	-	74	-	21	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	431	15	12	13.9	855
November	481	19	15	16.0	954
December	615	46	15	19.8	1,220
Calendar year 1945	14,841.0	254	9.5	40.7	29,440
January	647	33	17	20.9	1,280
February	507	26	16	18.1	1,010
March	1,425	101	25	46.0	2,830
April	8,561	555	76	235	16,980
May	3,964	245	74	128	7,860
June	1,489	71	33	49.6	2,950
July	772	32	20	24.9	1,530
August	545	20	15	17.6	1,080
September	443	16	14	14.8	879
Water year 1945-46	19,880	555	12	54.5	39,430

Logan River above State dam, near Logan, Utah

Location.- Water-stage recorder and concrete control, lat. 41°44'40", long. 111°47'00", in NE¼ 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 2½ miles east of Logan.

Drainage area.- 218 square miles.

Records available.- May 1913 to September 1946. 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.- 33 years (1913-46), 108 second-feet.

Extremes.- Maximum discharge during year, 857 second-feet Apr. 30 (gage height, 3.52 feet); minimum daily, 12 second-feet Jan. 19.

1913-46: Maximum discharge, 2,000 second-feet Mar. 21, 1916 (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 excellent above 100 second-feet and fair below. Water diverted from river and springs above station for power, irrigation, and municipal supply. Flow regulated by power plants above station.

Cooperation.- Records collected in collaboration with Utah Power & Light Co. in connection with a Federal Power Commission project.

Rating tables, water year 1945-46 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31				Jan. 1 to Sept. 30			
0.90	12	1.30	66	0.90	11	1.50	104
1.00	23	1.50	106	1.00	20	1.70	153
1.10	35	1.70	154	1.10	32	2.00	248
1.20	49			1.20	47	2.60	464
				1.30	64	3.50	848

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	16	15	47	16	16	40	684	388	162	30	16
2	14	16	14	46	16	16	30	529	363	159	25	16
3	14	16	14	40	16	16	21	508	363	153	20	16
4	14	16	16	44	15	16	16	566	407	143	17	16
5	15	16	15	40	16	16	34	615	472	a140	16	16
6	14	19	15	30	16	16	54	654	508	a130	16	16
7	15	20	15	32	16	16	40	641	508	a120	16	17
8	30	16	14	35	16	16	77	574	a490	104	16	17
9	16	15	14	18	16	17	72	615	a470	96	16	16
10	14	15	15	16	21	18	62	533	460	a85	16	50
11	15	15	23	20	16	24	40	453	464	a80	16	56
12	16	15	21	16	16	24	74	411	434	72	16	32
13	19	15	16	14	16	62	125	407	415	72	16	16
14	18	15	15	12	15	41	251	399	411	64	16	16
15	16	16	14	16	15	47	331	488	403	61	16	16
16	15	18	14	14	16	38	388	441	396	54	16	16
17	15	18	22	16	16	28	464	456	384	44	16	18
18	15	16	18	16	16	32	549	500	374	40	16	98
19	15	16	15	12	16	38	a620	500	342	42	16	106
20	15	15	14	15	16	62	a640	488	317	35	16	15
21	15	14	24	15	16	56	624	516	306	31	16	14
22	15	13	a25	18	16	57	557	520	296	41	16	14
23	14	14	a25	17	16	52	570	516	286	41	16	14
24	15	14	20	16	16	59	620	508	296	36	19	14
25	15	15	16	20	19	47	675	449	258	35	17	14
26	15	15	19	16	16	46	754	449	214	34	16	14
27	16	16	18	16	16	50	798	464	217	34	16	14
28	15	16	64	16	16	68	762	541	185	34	16	13
29	15	15	111	16	-	42	740	504	176	30	16	13
30	16	15	76	17	-	44	803	449	170	35	16	13
31	19	-	61	16	-	47	-	421	-	30	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	489	30	14	15.8	970
November	471	20	13	15.7	934
December	778	111	14	25.1	1,540
Calendar year 1945	28,161	569	12	77.2	55,860
January	682	47	12	22.0	1,350
February	453	21	15	16.2	899
March	1,127	68	16	36.4	2,240
April	10,831	803	16	361	21,480
May	15,789	684	399	509	31,320
June	10,773	508	170	359	21,370
July	2,237	162	30	72.2	4,440
August	528	30	16	17.0	1,050
September	722	106	13	24.1	1,430
Water year 1945-46	44,880	803	12	123	89,020

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

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

Location.- Water-stage recorder and timber 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 2½ miles east of Logan.

Records available.- May 1913 to September 1946.

Average discharge.- 33 years, 105 second-feet.

Extremes.- Maximum daily discharge during year. 194 second-feet June 5, 6, 7; minimum daily, 42 second-feet Dec. 28.
1914-46: Maximum daily discharge, 196 second-feet May 23, 1942 (gage height, 2.64 feet); 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.- Records collected in collaboration with Utah Power & Light Co. in connection with a Federal Power Commission project.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	144	128	111	91	95	95	191	106	192	187	186	152
2	141	130	106	93	93	91	187	146	192	187	186	146
3	140	123	102	93	93	96	179	189	192	189	186	150
4	140	130	111	93	94	90	179	191	192	189	186	148
5	135	123	111	93	89	91	189	191	194	189	189	149
6	132	130	111	93	89	93	191	191	194	189	191	145
7	132	130	117	93	93	91	191	191	194	187	184	144
8	117	127	106	93	85	90	189	191	192	187	181	148
9	135	131	95	88	79	93	187	191	192	187	179	146
10	132	124	91	93	91	93	189	191	191	189	179	88
11	128	126	100	100	89	96	186	191	192	189	178	89
12	124	122	95	78	81	99	192	191	191	189	178	122
13	134	123	90	85	90	102	192	189	189	189	179	139
14	132	113	91	94	93	102	192	189	191	186	176	137
15	134	124	87	93	85	102	186	191	191	186	174	137
16	137	122	90	93	87	102	191	192	189	186	171	143
17	136	119	99	99	85	104	191	192	189	186	166	150
18	135	118	101	96	88	102	191	192	189	186	166	45
19	132	117	81	93	87	102	191	191	187	186	168	45
20	131	119	88	83	87	102	189	191	189	186	166	150
21	130	110	102	89	88	102	189	191	189	186	164	149
22	128	104	102	91	85	102	189	191	191	186	164	148
23	128	114	102	95	85	102	187	191	191	186	165	146
24	124	119	102	95	85	102	189	192	192	186	165	144
25	126	111	99	94	91	102	189	191	191	187	165	145
26	127	115	102	96	91	102	189	191	191	187	164	144
27	123	115	100	94	93	102	187	191	189	187	164	148
28	122	111	42	90	100	126	187	192	191	187	162	148
29	122	115	91	96	-	166	187	192	191	187	158	141
30	123	115	91	93	-	191	122	192	191	186	153	141
31	134	-	90	90	-	189	-	192	-	186	152	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,058	144	117	131	8,050
November	3,608	131	104	120	7,160
December	3,006	117	42	97.0	5,960
Calendar year 1945	45,317	184	2	124	89,880
January	2,860	100	78	92.3	5,670
February	2,491	100	79	89.0	4,940
March	3,322	191	90	107	6,590
April	5,581	192	122	186	11,070
May	5,793	192	106	187	11,490
June	5,729	194	187	191	11,360
July	5,788	189	186	187	11,480
August	5,345	191	152	172	10,600
September	4,027	152	45	134	7,990
Water year 1945-46	51,608	194	42	141	102,400

Logan, Hyde Park & Smithfield Canal near Logan, Utah

Location.- Water-stage recorder and concrete 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 1946.

Average discharge.- 23 years (1923-46), 28.6 second-feet.

Extremes.- Maximum daily discharge during year, 127 second-feet June 11; no flow at times. 1906, 1924-46: Maximum daily discharge, 136 second-feet May 30, 31, 1930; no flow at times during most years.

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 from Logan River in NE¼NE¼ sec. 31, T. 12 N., R. 2 E., for irrigation and domestic supply north of Logan.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	9.9	5.3	0.1	4.0	3.5	0	44	42	115	60	45
2	8.0	9.4	5.3	.1	4.0	3.5	0	64	54	114	60	42
3	8.0	8.9	5.7	.1	4.0	3.5	1.8	102	58	114	59	42
4	8.0	8.9	6.1	.1	4.0	3.5	7.6	107	60	113	58	39
5	8.0	8.9	6.1	.1	3.7	3.5	8.4	111	73	113	56	41
6	8.0	12	6.1	.1	3.7	3.5	9.4	115	93	112	54	40
7	8.0	9.4	6.1	0	3.7	3.5	9.9	119	106	112	53	42
8	11	7.2	5.7	.9	3.7	3.5	9.9	122	117	112	54	40
9	8.4	7.6	5.3	2.7	6.4	3.5	9.9	118	123	110	51	39
10	8.0	7.2	5.3	6.4	3.5	3.5	9.4	105	124	115	50	44
11	12	7.2	5.3	2.2	3.5	3.5	8.9	101	127	114	51	42
12	16	6.8	5.3	3.2	3.5	3.5	8.9	97	126	114	56	37
13	17	6.8	5.3	7.6	3.5	0	8.4	93	125	107	56	37
14	12	6.4	5.3	8.0	3.5	0	7.6	72	124	105	53	39
15	6.4	6.4	5.3	7.2	3.5	0	7.2	1.4	124	103	48	39
16	6.4	5.7	5.3	6.8	3.5	0	9.4	89	123	104	46	39
17	6.1	5.7	5.2	7.2	3.5	0	9.9	96	122	108	50	27
18	6.1	5.7	5.2	8.9	3.5	0	8.9	114	122	104	49	21
19	7.6	5.7	5.2	9.4	3.5	0	8.9	117	121	97	46	24
20	9.4	5.7	5.1	12	3.5	0	8.0	117	121	97	44	23
21	9.4	5.7	5.1	5.7	3.5	0	8.9	112	120	96	45	23
22	9.4	5.7	5.1	5.3	3.5	0	9.9	118	120	83	50	23
23	9.9	5.7	5.1	7.2	3.2	0	11	106	119	80	54	22
24	9.4	5.7	5.0	5.3	3.2	0	12	67	118	79	55	22
25	9.4	5.7	5.0	4.5	3.5	0	20	72	118	78	44	22
26	9.4	5.7	5.0	4.2	3.2	0	25	71	117	76	44	21
27	9.4	5.7	5.0	4.2	3.2	0	32	72	117	68	46	18
28	9.4	5.7	2.5	4.2	3.5	0	39	38	116	64	41	16
29	9.4	5.7	.2	4.0	-	0	42	11	116	63	41	21
30	9.4	5.7	.1	4.0	-	0	53	17	115	62	39	21
31	10	-	.1	4.0	-	0	-	31	-	58	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	286.9	17	6.1	9.25	569
November	208.5	12	5.7	6.95	414
December	147.7	6.1	.1	4.76	293
Calendar year 1945	9,764.5	125	0	26.8	19,380
January	135.7	12	0	4.38	269
February	102.5	6.4	3.2	3.66	203
March	42.0	3.5	0	1.35	83
April	405.2	53	0	13.5	804
May	2,619.4	122	1.4	84.5	5,200
June	3,261	127	42	109	6,470
July	2,990	115	58	96.5	5,930
August	1,552	60	39	50.1	3,080
September	951	45	16	31.7	1,890
Water year 1945-46	12,701.9	127	0	34.8	25,200

Note.- No gage-height record Nov. 18-28, Dec. 15-28, Mar. 1-26, May 5-7, June 15 to July 7; discharge computed on basis of watermaster's notes and recorded range in stage.

Blacksmith Fork at Hardware Ranch, near Hyrum, Utah

Location.- Water-stage recorder, lat. 41°37', long. 111°37', in NE¼ sec. 17, T. 10 N., R. 3 E., 0.6 mile upstream from South Cottonwood Canyon, 2.1 miles downstream from Rock Creek, and 12½ miles east of Hyrum.

Records available.- June 1943 to September 1946.

Extremes.- Maximum discharge during year, 488 second-feet Apr. 18 (gage height, 4.08 feet); minimum, 56 second-feet Oct. 1, 2, Feb. 19-21 (but may have been less during period of no gage-height record).
1943-46: Maximum discharge, that of Apr. 18, 1946; minimum (revised), 41 second-feet Feb. 19, 1944, site and datum then in use.

Remarks.- Records good. Some diversions above station for irrigation of meadow lands.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	68	70	88	65	62	147	225	148	113	106	97
2	56	67	66	83	65	63	145	217	145	113	106	97
3	57	66	64	81	65	64	132	219	143	111	103	96
4	58	64	68	79	65	64	137	223	145	111	103	95
5	58	63	68	79	64	64	175	226	145	111	103	95
6	58	68	68	76	63	66	198	226	143	110	103	95
7	58	71	68	74	63	63	186	219	140	110	103	93
8	58	67	67	74	61	62	176	209	137	110	101	93
9	58	66	60	68	58	66	180	223	135	107	100	92
10	58	66	62	68	60	71	161	207	134	107	100	92
11	58	66	66	70	60	80	168	188	132	107	100	92
12	58	66	64	b64	60	86	198	180	131	110	101	92
13	58	66	64	66	59	122	252	178	129	111	101	92
14	58	64	64	66	59	120	316	175	128	110	100	92
15	58	64	64	64	58	103	345	171	126	110	99	91
16	60	70	62	64	58	100	345	168	124	110	99	93
17	60	68	63	64	58	96	374	171	123	110	100	91
18	60	68	62	64	57	106	402	175	122	111	100	91
19	59	67	b58	65	56	131	408	176	122	111	100	91
20	60	68	60	66	56	148	390	175	120	108	99	91
21	62	66	60	66	56	120	343	176	118	107	97	91
22	62	66	63	66	57	110	297	175	117	107	99	89
23	62	66	63	68	57	113	286	176	117	107	100	89
24	62	66	62	68	58	118	286	170	120	107	100	89
25	62	68	62	68	60	107	295	161	116	107	99	89
26	62	68	63	67	59	117	303	159	116	110	100	89
27	62	68	64	66	62	151	305	164	114	107	100	88
28	62	70	75	65	63	193	288	176	114	106	100	88
29	62	71	148	65	-	198	275	164	114	107	99	88
30	62	71	111	65	-	180	262	158	114	107	99	88
31	68	-	96	65	-	171	-	151	-	107	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,852	68	56	59.7	3,670
November	2,013	71	63	67.1	3,990
Decemher	2,155	148	58	69.5	4,270
Calendar year 1945	26,397	204	51	72.3	52,330
January	2,152	88	64	69.4	4,270
February	1,682	65	56	60.1	3,340
March	3,315	198	62	107	6,580
April	7,775	408	132	259	15,420
May	5,781	226	151	186	11,470
June	3,832	148	114	128	7,600
July	3,390	113	106	109	6,700
August	3,117	106	97	101	6,180
September	2,749	97	88	91.6	5,450
Water year 1945-46	39,803	408	56	109	78,940

b Stage-discharge relation affected by ice.
Note.- No gage-height record Jan. 18 to Feb 18; discharge computed on basis of weather records and records for station above Utah Power & Light Co.'s dam, near Hyrum.

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 1946.

Average discharge.- 32 years (1914-46), 120 second-feet.

Extremes.- Maximum discharge during year, 1,230 second-feet Apr. 19 (gage height, 6.00 feet); minimum daily, 70 second-feet Dec. 19, 20.
1913-46: 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. Several small diversions above station for irrigation. Low-water flow may be regulated by power plant above station.

Cooperation.- Water-stage recorder graph furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a82	93	81	101	77	77	208	573	255	170	140	118
2	a82	94	78	98	77	77	202	512	249	170	140	120
3	a82	a90	76	96	77	78	186	504	242	164	139	117
4	83	a87	77	92	77	78	181	502	238	163	137	116
5	83	a84	77	92	76	78	216	504	236	161	136	116
6	83	a90	78	89	75	81	259	494	232	161	136	116
7	83	a97	77	88	76	80	280	466	230	157	134	114
8	83	a94	81	87	73	80	261	436	226	156	136	114
9	82	a90	77	83	71	81	274	451	222	152	134	114
10	82	a86	74	77	73	84	249	429	218	152	132	114
11	82	a85	75	82	73	92	240	383	214	152	132	111
12	82	a84	77	73	73	101	282	358	210	152	132	111
13	82	a83	76	74	73	142	342	344	208	150	132	111
14	83	a82	77	76	73	142	468	331	206	149	131	111
15	84	a82	75	74	72	126	584	329	204	147	129	111
16	84	a86	74	74	72	120	671	320	202	145	128	112
17	85	a84	74	74	72	118	819	320	200	145	126	114
18	87	a84	75	76	72	129	1,010	322	196	144	126	114
19	87	a84	70	77	71	154	1,090	318	196	145	126	112
20	87	a82	70	78	71	179	1,030	312	194	145	126	112
21	87	a80	77	78	71	156	971	307	190	144	126	111
22	88	a80	80	78	71	142	810	305	186	144	126	111
23	88	80	82	80	72	147	786	303	183	144	128	111
24	88	81	81	80	72	150	804	305	190	144	128	111
25	88	82	78	80	75	142	851	284	183	144	124	111
26	88	81	77	78	75	150	868	274	181	149	124	110
27	88	81	77	77	76	172	868	274	177	144	124	108
28	88	81	83	76	78	226	768	301	172	140	122	107
29	87	81	147	77	-	249	732	295	172	142	120	107
30	88	81	136	77	-	234	692	276	173	142	120	107
31	94	-	112	77	-	236	-	263	-	142	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,640	94	82	85.2	5,240
November	2,549	94	80	85.0	5,060
December	2,549	147	70	82.2	5,060
Calendar year 1945	37,909	348	53	104	75,220
January	2,519	101	73	81.3	5,000
February	2,064	78	71	73.7	4,090
March	4,101	249	77	132	8,130
April	16,982	1,090	181	566	33,680
May	11,395	573	263	368	22,600
June	6,185	255	172	206	12,270
July	4,659	170	140	150	9,240
August	4,012	140	118	129	7,960
September	3,372	120	107	112	6,690
Water year 1945-46	63,027	1,090	70	173	125,000

a No gage-height record; discharge computed on basis of records for station at Hardware Ranch, near Hyrum.

Clarkston Creek near Newton, Utah

Location.- Staff gage in concrete outlet flume, 300 feet downstream from Newton Dam, and staff gage and Parshall flume in Highline Canal, 20 feet downstream from head gate (at outlet flume), and 250 feet downstream from Newton Dam; lat. 41°54', long. 111°58', in SE¼ sec. 5, T. 13 N., R. 1 W., 2½ miles north of Newton. Prior to Apr. 11, 1946, at one site 200 feet downstream, at different datum.

Records available.- March 1939 to September 1946.

Extremes (regulated).- Maximum discharge observed during year, 282 second-feet Dec. 29-31; no flow Oct. 1 to Dec. 27, Sept. 15-28.
1939-46: Maximum discharge observed, that of Dec. 29-31, 1945; no flow at times.

Remarks.- Records good. Gages read once daily. Discharge is computed by combining discharge of Newton Dam outlet flume below Highline Canal and that of Highline Canal. Highline Canal first diverted water in May 1946. Diversions above and below station for irrigation. Flow regulated by Newton Dam.

Discharge, in second-feet, wster year October 1945 to September 19'6

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	70	10	1.1	10	16	4.0	24	7.1	16
2			0	27	10	6.3	10	16	4.7	22	7.1	7.7
3			0	11	10	10	5.5	18	5.7	21	9.1	6.5
4			0	11	10	22	.2	12	5.9	21	10	7.7
5			0	11	10	32	.2	12	4.7	23	11	6.5
6			0	11	10	32	1.3	12	4.3	24	10	6.5
7			0	11	10	32	3.4	14	4.3	23	15	9.5
8			0	11	10	32	5.6	e16	11	24	17	4.3
9			0	11	10	32	12	e16	14	26	18	8.1
10			0	11	10	32	20	e16	23	24	18	6.5
11			0	11	10	45	31	e16	24	23	19	5.5
12			0	11	10	110	40	e16	24	19	15	5.5
13			0	11	10	279	21	16	24	18	20	4.3
14			0	11	10	279	21	16	23	18	23	4.3
15			0	11	8.5	32	21	19	25	19	21	0
16			0	11	8.5	32	21	28	25	24	23	0
17			0	11	8.5	32	21	25	19	19	25	0
18			0	11	8.5	32	21	33	19	21	29	0
19			0	11	8.5	12	21	36	21	17	25	0
20			0	a11	8.5	7.3	8.3	36	24	15	25	0
21			0	a11	8.5	18	8.3	35	19	15	25	0
22			0	a11	8.5	37	8.3	35	23	17	20	0
23			0	a11	8.5	52	8.3	37	26	17	24	0
24			0	a11	8.5	38	8.3	31	25	17	24	0
25			0	a11	8.5	28	8.3	29	25	17	24	0
26			0	a11	4.2	10	8.3	20	25	17	24	0
27			0	11	1.1	10	8.3	11	25	17	24	0
28			25	a11	1.1	10	8.3	3.2	19	10	16	0
29			209	a11	-	10	8.3	.1	18	12	16	4.8
30			282	a10	-	10	13	1.6	20	12	7.1	12
31			158	a10	-	10	-	2.6	-	7.1	9.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet	Diversion by Highline Canal (acre-feet)
October	0	0	0	0	0	0
November	0	0	0	0	0	0
December	674	282	0	21.7	1,340	0
Calendar year 1945	3,136.0	282	0	8.59	6,230	0
January	414	70	10	13.4	821	0
February	239.9	10	1.1	6.57	476	0
March	1,324.7	279	1.1	42.7	2,630	0
April	382.2	40	.2	12.7	758	0
May	594.5	37	.1	19.2	1,180	181
June	534.6	26	4.0	17.8	1,060	312
July	583.1	26	7.1	18.8	1,160	420
August	560.9	29	7.1	18.1	1,110	451
September	115.7	16	0	3.86	229	77
Water year 1945-46	5,423.6	282	0	14.9	10,760	1,440

a No gage-height record on Newton Dam outlet flume, discharge interpolated.
e No gage-height record on Highline Canal; discharge computed on basis of observer's notes.

West Side Canal near Collinston, Utah

Location.- Water-stage recorder, lat. 41°50', long. 112°04', in SW¼ 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 1946.

Average discharge.- 34 years, 225 second-feet.

Extremes.- Maximum daily discharge during year, 729 second-feet May 19; no flow Dec. 29 to Apr. 28.
1912-46: Maximum daily discharge, that of May 19, 1946; no flow during periods in every year except 1914.

Remarks.- Records good. Canal diverts from west side of Bear River in NW¼SW¼ 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 seven discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	300	89	d25				0	114	200	686	496	545
2	308	65	d25				0	128	201	686	509	545
3	310	64	d25				0	211	211	688	512	543
4	324	64	d25				0	452	211	682	514	535
5	333	65	d25				0	501	230	680	532	520
6	334	34	d25				0	492	259	678	579	507
7	338	15	d25				0	499	283	680	585	509
8	340	21	d25				0	478	362	667	614	512
9	303	25	d25				0	497	443	636	628	510
10	269	24	d24				0	492	478	638	630	509
11	280	25	d24				0	568	564	640	624	510
12	283	25	d24				0	626	562	646	610	514
13	261	26	a24				0	634	572	646	594	516
14	238	26	a24				0	626	658	644	600	620
15	237	26	a23				0	632	708	642	600	516
16	215	26	a23				0	640	710	646	600	460
17	199	26	†23				0	670	698	644	606	406
18	196	28	a23				0	705	686	644	606	415
19	196	28	a23				0	729	684	648	604	406
20	200	28	a23				0	718	684	630	630	408
21	204	28	a23				0	714	680	614	648	408
22	192	28	a23				0	708	688	618	613	416
23	181	28	a23				0	636	692	596	535	409
24	156	a28	a23				0	508	686	571	535	402
25	139	a27	a23				0	392	682	572	535	429
26	128	h27	a23				0	366	682	502	547	456
27	119	h26	a23				0	287	686	496	548	460
28	119	h26	a14				0	280	684	496	552	460
29	120	h26	0				60	249	688	496	524	438
30	120	h25	0				100	202	688	494	496	408
31	120	-	0				-	202	-	494	512	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,062	340	119	228	14,010
November	999	89	15	33.3	1,980
December	658	25	0	21.2	1,310
Calendar year 1945	75,279.7	688	0	206	149,300
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	160	100	0	5.3	317
May	14,956	729	114	482	29,660
June	16,260	710	200	542	32,250
July	19,102	688	494	616	37,890
August	17,718	648	496	572	35,140
September	14,192	545	402	473	28,150
Water year 1945-46	91,107	729	0	250	180,700

† Result of discharge measurement.
a No gage-height record; discharge computed on basis of interpolation and observer's notes on gate changes.
d Doubtful gage-height record; discharge computed on basis of 1 discharge measurement and interpolation.
h Computed from staff-gage reading.

Hammond (East Side) Canal near Collinston, Utah

Location.- Water-stage recorder, lat. 41°50', long. 112°03', in SE¼ 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 1946.

Average discharge.- 29 years (1917-46), 51.0 second-feet.

Extremes.- Maximum daily discharge during year, 160 second-feet July 4, 8, 9; no flow Nov. 11 to Apr. 29.
1912-46: Maximum daily discharge, 182 second-feet June 28, July 1, 1932, June 27, 28, 1933; no flow for periods during each year.

Remarks.- Records excellent. Canal diverts from east side of Bear River in NW¼SW¼ 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 five discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	26					0	h85	72	155	141	123
2	59	26					0	h107	74	154	140	123
3	65	25					0	h107	77	158	140	123
4	76	26					0	h123	77	160	139	123
5	79	26					0	h134	77	158	143	122
6	80	26					0	h133	76	159	150	121
7	72	26					0	h137	a84	159	148	121
8	62	26					0	112	a106	160	144	99
9	62	17					0	114	a111	160	145	84
10	62	3.2					0	109	135	159	147	83
11	61	0					0	109	136	152	148	96
12	60	0					0	125	136	152	144	101
13	49	0					0	135	139	152	144	101
14	46	0					0	139	148	152	145	100
15	44	0					0	139	148	152	145	98
16	30	0					0	138	148	152	144	77
17	40	0					0	142	149	154	145	77
18	44	0					0	150	153	157	145	78
19	38	0					0	154	155	153	143	75
20	36	0					0	153	155	154	143	75
21	35	0					0	152	157	153	143	74
22	29	0					0	151	158	153	138	66
23	25	0					0	120	157	157	114	65
24	26	0					0	118	139	153	115	65
25	25	0					0	109	150	156	125	65
26	26	0					0	109	154	137	126	74
27	26	0					0	109	151	142	119	98
28	26	0					0	99	152	142	121	97
29	26	0					0	81	153	142	123	90
30	26	0					h46	74	156	140	121	87
31	26	-					-	72	-	143	121	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,421	80	25	45.8	2,820
November	227.2	26	0	7.57	451
December	0	0	0	0	0
Calendar year 1945	16,641.1	166	0	45.6	33,010
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	46	46	0	1.5	91
May	3,737	154	72	121	7,410
June	3,883	158	72	129	7,700
July	4,744	160	137	153	9,410
August	4,249	150	114	137	8,430
September	2,781	123	65	92.7	5,520
Water year 1945-46	21,088.2	160	0	57.8	41,830

a No gage-height record; discharge computed on basis of observer's notes.
h Computed from staff-gage readings and time of gate changes.

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, 5¾ miles northwest of Malad, and 8¼ miles upstream from Little Malad River.

Records available.- November 1940 to September 1946. November 1931 to September 1932 at site 1¼ miles downstream.

Extremes.- Maximum discharge during year, 20 second-feet sometime during period Feb. 6 to Mar. 11 when clock was stopped (gage height, 1.91 feet); minimum discharge, 9.4 second-feet Oct. 1 (gage height, 1.17 feet).
1931-32, 1940-46: Maximum discharge, that during period Feb. 6 to Mar. 11, 1946; minimum observed, 4.4 second-feet Nov. 3, 1931 (discharge measurement).

Remarks.- Records good except those for periods of no gage-height record, which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.4	11			13		14	17	16	12	11	11
2	9.5	11			13		14	17	16	12	11	11
3	9.5	11		a15	14		14	17	15	13	12	11
4	9.5	11			13		14	17	15	13	12	11
5	9.5	11			13		14	17	15	12	12	11
6	9.5	11				a14	14	18	15	12	12	11
7	9.7	11	a13				15	18	15	12	12	11
8	9.7	11		a14			15	18	15	12	12	11
9	9.7	11					15	18	15	12	12	11
10	9.7	12		14			15	18	14	12	12	11
11	9.7	12			14		15	18	14	12	12	11
12	9.7	12			14	14	15	18	14	12	12	11
13	9.8	12			14	a13	14	17	14	12	12	11
14	9.8	12			14		13	17	14	12	12	11
15	9.8	12			14		13	17	14	12	12	11
16	10	12			14		13	16	17	14	12	12	11
17	10	12			14		13	16	17	13	12	12	11
18	10	12			14		13	16	17	13	12	12	11
19	10	12			14		14	16	17	13	12	12	11
20	10	12	a14		14		14	16	17	13	12	12	11
21	10	12			14		13	16	17	13	12	12	11
22	10				14		13	16	17	13	12	12	10
23	10				14		13	16	17	13	12	12	11
24	10				14		13	16	17	13	11	12	11
25	10				14	a14	13	17	17	13	11	12	11
26	10	a11			14		13	17	17	13	11	12	11
27	11				14		14	17	17	12	11	12	11
28	11				14		14	17	16	12	11	12	11
29	11		a15		14	-	14	17	16	12	11	11	11
30	11				13	-	14	17	16	12	11	11	11
31	11	-			13	-	14	-	16	-	11	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	309.5	11	9.4	9.98	614
November	351	-	11	11.7	696
December	427	-	-	13.8	847
Calendar year 1945	4,303.4	16	-	11.8	8,535
January	437	-	-	14.1	867
February	373	-	-	13.3	740
March	423	-	-	13.6	839
April	465	17	14	15.5	922
May	530	18	16	17.1	1,050
June	413	16	12	13.8	819
July	368	13	11	11.9	730
August	367	12	11	11.8	728
September	329	11	11	11.0	653
Water year 1945-46	4,792.5	18	9.4	13.1	9,505

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

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 1946.

Extremes.- Maximum discharge observed during year, 490 second-feet Dec. 29 (gage height, 6.99 feet); minimum observed, 21 second-feet June 22, 24-27, July 2, 3, Aug. 20, 22, 28, Sept. 3; minimum gage height observed, 2.04 feet June 24, 27, July 2, 3, 9, 12, Aug. 20, Sept. 3, 4.

1938-46: Maximum discharge, 650 second-feet (revised) Jan. 22 or 23, 1943 (gage height, 8 feet, from information by observer), from rating curve extended above 370 second-feet by logarithmic plotting; minimum observed, 15 second-feet July 15, 16, 1940; minimum gage height observed, 1.98 feet May 20, 1939, July 16, 1940, and several days in 1944.

Remarks.- Records good except those during periods of rapidly changing stage, those for Jan. 14, 15, and those below 30 second-feet, which are 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	90	109	207	76	138	232	112	69	22	30	22
2	40	93	101	197	76	135	248	112	62	21	29	22
3	40	88	85	159	79	119	239	106	52	21	27	21
4	41	84	77	149	82	121	226	104	42	22	24	22
5	43	80	84	153	67	124	221	99	39	22	24	22
6	44	79	88	149	83	139	203	88	33	22	24	23
7	44	90	99	123	88	145	211	82	31	22	23	23
8	45	103	90	111	81	176	221	73	30	22	22	23
9	45	105	56	69	79	228	224	73	30	22	23	23
10	46	108	72	90	83	315	246	73	30	22	23	24
11	46	111	73	83	84	372	246	75	28	23	22	24
12	45	116	59	71	77	400	217	74	27	22	23	24
13	47	115	58	71	83	397	191	69	26	23	23	24
14	48	109	63	e60	78	478	176	64	25	23	23	24
15	48	104	62	e60	78	409	178	64	24	23	23	24
16	48	105	60	66	78	345	187	58	24	23	22	26
17	48	108	62	66	81	283	183	58	23	23	22	27
18	50	109	59	66	88	273	183	58	24	23	22	27
19	50	108	59	66	89	228	182	44	23	23	22	26
20	52	105	59	66	89	261	183	43	22	23	21	26
21	56	96	58	60	93	378	189	41	22	23	22	26
22	60	70	60	64	93	314	195	39	21	23	21	26
23	58	69	69	63	91	266	183	39	22	23	22	26
24	58	66	100	66	95	241	173	39	21	24	23	26
25	58	78	143	67	113	235	159	41	21	24	23	30
26	58	84	158	60	145	215	152	43	21	24	23	32
27	60	94	140	66	166	199	146	40	21	24	22	32
28	61	93	254	67	174	191	141	46	22	25	21	34
29	61	94	490	71	-	191	140	78	22	25	22	29
30	66	106	423	71	-	201	110	95	22	25	22	28
31	70	-	345	67	-	215	-	84	-	27	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,575	70	39	50.8	3,120
November	2,860	116	66	95.3	5,670
December	3,715	490	56	120	7,370
Calendar year 1945	28,601	490	22	78.4	56,730
January	2,804	207	60	90.5	5,560
February	2,589	174	67	92.5	5,140
March	7,730	478	119	249	15,330
April	5,785	248	110	193	11,470
May	2,114	112	39	68.2	4,190
June	879	69	21	29.3	1,740
July	717	27	21	23.1	1,420
August	715	30	21	23.1	1,420
September	766	34	21	25.5	1,520
Water year 1945-46	32,249	490	21	88.4	63,950

e Gage reading not representative of average for day; discharge computed on basis of records for stations on nearby streams.

Little Malad River above Elkhorn Reservoir, near Malad, Idaho

Location.- Water-stage recorder and Cippoletti weir, lat. 42°20', long. 112°26', on line between secs. 35 and 36, T. 12 S., R. 34 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.- August 1911 to August 1913, October 1931 to September 1932, November 1940 to September 1946.

Extremes.- Maximum discharge during year, 197 second-feet Aug. 23 (gage height, 2.91 feet), from rating curve extended above 50 second-feet on basis of computation of flood flow by weir formula; minimum, 13 second-feet Dec. 2 (gage height, 0.48 foot).
1911-13, 1931-32, 1940-46: Maximum discharge, that of Aug. 23, 1946; minimum, 9.1 second-feet Feb. 5, 1943 (gage height, 0.40 foot), probably due to storage behind ice jam upstream.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	17	17	19	17	17	25	27	20	18	18	15
2	15	17	14	18	17	17	27	26	20	18	16	15
3	16	17	15	18	17	17	26	26	19	18	15	15
4	16	17	16	18	17	17	26	25	19	18	16	16
5	16	17	17	18	17	16	28	25	19	18	16	16
6	16	17	17	18	17	17	29	24	19	18	16	16
7	16	17	17	16	18	16	29	25	19	18	16	16
8	16	16	16	18	17	17	29	24	19	17	16	16
9	16	16	14	17	17	18	29	25	19	17	16	16
10	16	17	15	17	18	20	27	24	18	17	16	16
11	16	17	16	17	17	26	26	24	18	18	16	16
12	16	17	17	16	17	21	26	24	18	18	16	16
13	16	17	17	16	17	20	27	22	18	18	17	16
14	16	16	16	16	17	20	28	22	17	18	17	16
15	16	17	16	16	17	18	28	21	17	18	16	16
16	16	17	16	a16	17	17	28	20	17	18	16	16
17	16	17	16	a16	17	17	28	20	17	17	16	17
18	16	17	17	a17	17	22	29	19	18	17	16	16
19	16	17	17	h17	16	26	30	19	18	17	16	16
20	16	17	17	a17	16	39	31	19	17	17	16	16
21	16	15	17	a17	16	27	31	20	17	16	15	16
22	16	15	17	a17	16	23	30	20	17	16	16	16
23	16	16	18	a17	16	24	29	21	16	17	f29	16
24	17	16	17	a17	16	23	28	22	17	17	f20	16
25	17	17	17	a17	17	22	28	21	17	26	18	15
26	17	17	17	h17	16	27	28	22	16	17	17	15
27	16	17	16	17	17	36	27	22	16	17	17	15
28	16	17	34	17	17	33	27	23	16	17	17	15
29	16	17	f44	17	-	26	27	24	16	18	17	15
30	17	17	22	17	-	25	26	21	16	18	16	15
31	17	-	19	17	-	28	-	21	-	18	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	499	17	15	16.1	990
November	501	17	15	16.7	994
December	561	44	14	18.1	1,110
Calendar year 1945	6,172	44	11	16.9	12,250
January	528	19	16	17.0	1,050
February	471	18	16	16.8	934
March	696	39	16	22.5	1,380
April	837	31	25	27.9	1,660
May	698	27	19	22.5	1,380
June	530	20	16	17.7	1,050
July	550	26	16	17.7	1,090
August	521	29	15	16.8	1,030
September	472	17	15	15.7	936
Water year 1945-46	6,864	44	14	18.8	13,600

a No gage-height record; discharge interpolated.
f Computed from partly estimated gage-height record.
h Computed from staff-gage reading.

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 11½ miles northwest of Malad.

Records available.- December 1940 to September 1946.

Extremes.- Maximum gage height observed during year, 11.32 feet Mar. 23; minimum gage height observed, -1.71 feet July 10.
1940-46: Maximum gage height observed, 12.06 feet Apr. 2, 1944; minimum gage height, below -3.3 feet in July 1944.

Remarks.- Reservoir is formed by partly completed multiple-arch concrete dam (capacity, about 7,600 acre-feet). Gage read once weekly. Large seepage losses from reservoir limit storage to a small range. Storage is negligible below a stage of about 3 feet.

Gage height, in feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	8.09	-	-	-	-	-	-0.55	-	-	-
2	-	-	-	-	6.41	8.77	-	-	-	-	-	-
3	-	7.19	-	-	-	-	-	-	-	-	-1.57	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	8.47	-	-	-	-	-	-	-	-
6	7.83	-	-	-	-	-	9.81	-	-	-1.25	-	-
7	-	-	-	-	-	-	-	-	-	-	-	5.10
8	-	-	8.25	-	-	-	-	-	-.65	-	-	-
9	-	-	-	6.91	6.51	8.95	-	-	-	-	-	-
10	-	7.05	-	-	-	-	-	-	-	-	-1.71	-
11	-	-	-	-	-	9.36	-	0.65	-	-	-	-
12	-	-	-	6.43	-	-	-	-	-	-	-	-
13	7.13	7.12	-	-	-	-	9.43	-	-	-1.65	-	-
14	-	-	-	-	-	-	-	-	-	-	-	1.95
15	-	-	8.11	-	-	-	-	-	-1.15	-	-	-
16	-	-	-	-	6.57	10.31	-	-	-	-	-	-
17	-	7.15	-	-	-	-	-	-	-	-	-1.65	-
18	-	-	-	-	-	-	-	.45	-	-	-	-
19	-	-	-	6.33	-	-	-	-	-	-	-	-
20	7.11	-	-	-	-	11.31	9.73	-	-	-1.25	-	-
21	-	-	-	-	-	-	-	-	-	-	-	2.35
22	-	-	8.55	-	-	-	9.68	-	-.85	-1.23	-	-
23	-	-	-	-	8.45	11.32	-	-	-	-	5.64	-
24	-	7.07	-	-	-	-	-	-	-.78	-1.00	-1.65	-
25	-	-	-	-	-	-	-	1.00	-	-	-	-
26	-	-	-	6.39	-	-	-	-	-	-	-	-
27	7.17	-	-	-	-	-	8.15	-	-	2.17	-.85	-
28	-	-	-	-	-	-	-	-	-	-	-	2.95
29	-	-	10.27	-	-	-	-	-	-.55	-	-	-
30	-	-	-	-	-	11.00	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	2.05	-

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 11½ miles northwest of Malad.

Records available.- December 1940 to September 1946.

Extremes (regulated).- Maximum discharge during year, 113 second-feet Aug. 23 (gage height, 3.50 feet, from floodmark), from computation of flow over weir 50 feet upstream; no flow June 8, July 28.
1940-46: Maximum discharge, that of Aug. 23, 1946; no flow at times during each year.

Remarks.- Records good except those for periods of partly estimated or no gage-height record and those below 5 second-feet, which are fair. Flow partly regulated by Elkhorn Reservoir (see preceding page). Small ranch diversions from tributaries above station for irrigation.

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 7 to Dec. 11, Mar. 16 to Apr. 23, Aug. 23 to Sept. 3)

0.6	0.5	0.9	5.4	1.4	20
.7	1.7	1.0	7.9	1.6	26
.8	3.3	1.2	14	1.9	38

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	7.2	1.5	6.6	13	3.7	11	30	23	18	17	15
2	8.8	7.2	1.5	14	13	3.7	11	30	22	20	15	14
3	5.4	7.2	1.5	14	13	3.7	11	30	22	19	15	15
4	4.6	7.2	1.5	14	13	3.7	11	29	22	19	16	15
5	1.9	7.2	1.5	13	13	3.7	10	29	21	20	16	15
6	5.0	7.2	1.5	13	13	3.7	9.9	28	22	20	16	15
7	10	7.2	1.5	13	13	3.9	9.9	28	22	19	16	15
8	10	7.2	1.5	13	13	3.9	10	28	20	18	16	18
9	10	7.2	1.5	13	13	3.9	10	29	18	18	16	18
10	10	7.2	1.5	13	13	3.9	10	29	23	18	16	16
11	10	6.9	1.5	13	13	3.9	6.9	27	21	a18	16	16
12	8.3	6.9	1.3	13	13	4.1	4.1	26	21	a18	16	16
13	8.5	7.2	1.3	13	13	4.1	4.1	25	20	a18	17	15
14	8.2	7.2	1.3	12	13	4.1	4.1	25	20	a18	17	16
15	8.2	7.2	1.5	12	13	3.9	4.4	25	19	a17	16	16
16	7.9	7.2	1.5	13	13	4.1	4.6	25	19	a17	16	16
17	7.9	7.2	1.5	13	8.8	4.1	4.6	24	19	a17	16	16
18	7.9	7.4	1.5	13	3.5	4.1	5.2	23	19	17	16	16
19	7.9	7.4	1.5	13	3.5	4.4	6.6	23	20	16	16	17
20	7.6	7.4	1.5	13	3.5	4.4	9.9	22	19	16	16	16
21	7.4	7.4	1.5	13	3.5	7.1	11	23	19	16	16	16
22	7.2	7.4	1.5	13	3.5	11	11	22	18	16	17	16
23	7.2	7.4	1.5	13	3.5	11	13	22	18	17	f36	16
24	7.2	5.2	1.5	13	3.5	11	23	24	19	17	f22	16
25	7.4	1.3	1.5	13	3.7	11	28	23	18	17	f16	16
26	7.4	1.3	1.5	13	3.7	11	29	22	18	a22	16	15
27	7.4	1.3	1.5	13	3.7	11	32	25	18	a24	16	15
28	7.4	1.3	1.5	13	3.7	11	32	26	16	19	15	15
29	7.4	1.3	1.5	13	-	11	31	27	18	20	15	15
30	7.4	1.3	1.5	13	-	11	30	25	18	17	15	16
31	7.2	-	1.5	13	-	11	-	24	-	18	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	239.7	11	1.9	7.73	475
November	179.2	7.4	1.3	5.97	355
December	45.9	1.5	1.3	1.48	91
Calendar year 1945	3,642.4	33	0	9.98	7,225
January	397.6	14	6.6	12.8	789
February	256.1	13	3.5	9.15	508
March	196.1	11	3.7	6.33	389
April	398.3	32	4.1	13.3	790
May	798	30	22	25.7	1,580
June	592	23	16	19.7	1,170
July	564	24	16	18.2	1,120
August	521	36	15	16.8	1,030
September	472	18	15	15.7	936
Water year 1945-46	4,659.9	36	1.3	12.8	9,233

a No gage-height record; discharge computed on basis of records for station above Elkhorn Reservoir, near Malad.
f Computed from partly estimated gage-height record.

Little Malad River below Sand Ridge dam site, near Malad, Idaho

Location.- Water-stage recorder, lat. 42°12', long. 112°20', in SE¼ sec. 14, T. 14 S., R. 35 E., 0.6 mile below proposed Sand Ridge dam site, 1¼ miles below unnamed tributary, 3½ miles west of Malad, and 9 miles downstream from Elkhorn Reservoir.

Records available.- October 1945 to September 1946.

Extremes.- Maximum discharge recorded during year, 25 second-feet Mar. 20 (gage height, 3.92 feet), but may have been higher Dec. 29 or 30; maximum gage height recorded, 5.44 feet Feb. 17 during period of severe ice effect; minimum, 0.3 second-foot Aug. 9 (gage height, 1.58 feet).

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Flow practically all diverted above station during irrigation season; large diversions during other periods.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.8	2.1			h5.3	11	1.4	1.3	0.7	0.6	0.6
2		.8	1.8			5.7	11	1.4	1.3	.7	.6	.6
3		.8	1.7	6.0		5.0	10	1.5	1.3	.6	.6	.6
4		.8	2.1			4.9	10	1.6	1.2	.7	.6	.6
5		.8	2.4			5.4	10	1.6	1.2	.6	.6	.6
	0.6											
6		.8	2.1			5.1	9.8	1.6	1.4	.5	.6	.6
7		.9	2.2	5.0		4.8	9.7	1.5	1.4	.5	.5	.6
8		.8	2.1			4.8	9.6	1.6	1.2	.5	.5	.6
9		.9	1.6	(*)	5.0	7.7	9.7	1.4	1.2	.6	.5	.6
10		1.3	1.8			6.9	9.6	1.4	1.0	.6	.5	.6
11	.6	1.4	2.2			14	9.8	1.4	1.1	.7	.5	.6
12	.6	1.5				18	7.1	1.4	1.2	.7	.5	.6
13	.6	*1.5		3.0		12	6.3	1.4	1.2	.7	.5	.6
14	.6	1.3				*8.1	5.6	1.4	1.2	.6	.6	.6
15	.6	1.6				6.1	5.2	1.4	1.2	.6	.6	.6
16	.6	1.6				5.7	5.3	1.4	1.2	.6	.6	.6
17	.6	1.6	1.5			5.6	5.0	1.3	1.2	.6	.6	.6
18	.6	1.6				6.1	4.8	1.3	1.2	.6	.6	.6
19	.6	1.6				8.0	4.7	1.2	1.2	.6	.6	.6
20	.6	1.6			4.0	18	4.9	1.3	1.0	.6	.6	.6
21	.6	1.4				14	3.6	1.2	1.0	.6	.6	.6
22	.6				4.6	13	3.1	1.2	.9	.6	.6	.6
23	.6				4.9	13	2.1	1.2	1.0	.6	.6	.6
24	.6				5.6	14	2.0	1.4	1.0	.8	.6	.6
25	.6	1.0		4.0	5.7	12	2.0	1.2	1.0	.8	.6	.6
			5.0									
26	.7				6.0	12	2.0	1.2	1.0	.7	.6	.6
27	.7	1.8			6.0	14	1.9	1.3	.9	.6	.6	.6
28	.7	1.8			6.0	13	1.8	1.4	.8	.6	.6	.6
29	.7	1.8			-	12	1.8	1.3	.8	.6	.6	.6
30	.7	2.0	15		-	11	1.9	1.2	.7	.6	.6	.6
31	.8	-			-	11	-	1.2	-	.6	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	19.3	-	-	0.62	38
November	37.8	2.0	0.8	1.26	75
December	123.6	-	-	3.99	245
Calendar year	-	-	-	-	-
January	128.0	-	-	4.13	254
February	138.8	-	-	4.96	275
March	296.6	18	4.8	9.55	588
April	181.3	11	1.8	6.04	360
May	42.3	1.6	1.2	1.36	84
June	33.3	1.4	.7	1.11	66
July	19.4	.8	.5	.63	38
August	17.9	.6	.5	.58	36
September	18.0	.6	.6	.60	36
Water year 1945-46	1,055.9	18	.5	2.89	2,095

* Winter discharge measurement made on this day.
h Computed from staff-gage reading.
Note.- No gage-height record Oct. 1-10, Dec. 14 to Jan. 8, Feb. 2-7, 10-14, 16-21, 26-28, July 7-12, Aug. 11-16; discharge interpolated, or computed on basis of weather records, records for stations on nearby streams, and information regarding diversions. Stage-discharge relation affected by ice Nov. 22-26 and most of period Dec. 12 to Feb. 20.

Devil Creek above Campbell Creek, near Malad, Idaho

Location.- Water-stage recorder, 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 1946.

Extremes.- Maximum discharge during year, 86 second-feet Mar. 30 (gage height, 1.40 feet); minimum, 3.9 second-feet (regulated) Jan. 24 (gage height, 0.47 foot); minimum daily, 7.2 second-feet Sept. 24, 29, 30.

1938-46: Maximum discharge observed, 202 second-feet Apr. 2, 1943 (gage height, 2.10 feet), from rating curve extended above 40 second-feet; minimum recorded, 3.3 second-feet (regulated) July 20, Oct. 9, 1944; minimum daily observed, 4.1 second-feet July 5, 1939, Aug. 16-19, 1940.

Remarks.- Records good. Small 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 causes slight diurnal fluctuations.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	9.6	8.8	9.2	11	11	29	22	13	9.6	8.4	8.0
2	8.0	9.6	8.8	9.2	10	10	31	22	13	9.6	8.4	8.0
3	8.0	10	8.8	9.2	10	10	28	22	13	9.6	8.4	8.0
4	8.0	10	9.2	9.6	10	10	35	21	13	9.6	8.4	8.0
5	8.0	10	9.2	9.6	9.6	10	40	21	13	9.6	8.4	8.0
6	8.4	10	9.2	9.2	9.6	9.6	33	21	13	9.6	8.4	8.0
7	8.4	10	9.2	8.8	10	10	29	20	12	9.6	8.4	8.0
8	8.4	9.6	8.8	10	9.6	10	29	20	12	9.2	8.0	8.0
9	8.4	9.6	8.8	10	11	10	27	20	11	9.2	8.0	8.0
10	8.4	10	8.8	10	9.6	9.6	24	20	11	9.2	8.0	8.0
11	8.4	9.6	8.8	11	9.6	11	26	18	11	9.2	8.0	7.6
12	8.4	10	9.2	10	9.6	10	28	18	11	9.2	8.0	7.6
13	8.4	9.6	9.2	10	9.6	11	28	18	11	8.8	8.4	7.6
14	8.4	9.6	9.2	10	9.6	11	28	18	11	9.2	8.4	7.6
15	8.4	9.6	9.2	10	9.6	10	27	17	11	8.8	8.0	7.6
16	8.4	9.6	11	10	9.6	10	28	17	11	8.8	8.0	7.6
17	8.4	9.2	9.2	10	9.6	11	27	16	11	8.8	8.0	7.6
18	8.0	9.2	8.8	9.6	9.6	12	26	16	11	8.8	8.0	7.6
19	8.0	9.2	11	9.6	9.6	13	25	15	11	8.4	8.0	7.6
20	8.0	9.2	11	9.6	9.6	16	25	15	11	8.4	8.0	7.6
21	8.0	8.8	8.8	9.6	9.6	15	24	15	11	8.8	8.4	7.6
22	8.0	8.8	9.6	10	9.6	15	24	14	11	8.8	8.4	7.6
23	8.4	8.8	9.2	10	9.6	15	24	14	11	8.8	8.8	7.6
24	8.4	8.8	8.8	7.6	10	16	22	15	11	8.8	8.8	7.2
25	8.8	8.8	8.8	9.2	10	15	22	14	11	8.8	8.4	7.6
26	9.6	8.8	9.2	9.6	10	16	22	14	11	8.8	8.4	7.6
27	9.6	8.8	9.2	9.6	10	22	23	14	10	8.4	8.4	7.6
28	9.6	9.2	11	10	9.6	36	23	15	10	8.4	8.4	7.6
29	9.6	9.2	12	10	-	51	23	14	10	8.4	8.0	7.2
30	9.6	9.2	9.6	9.6	-	58	23	14	10	8.4	8.0	7.2
31	9.6	-	9.6	9.2	-	48	-	13	-	8.8	8.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	264.0	9.6	8.0	8.52	524
November	282.4	10	8.8	9.41	560
December	292.0	12	8.8	9.42	579
Calendar year 1945	4,206.8	35	7.2	11.5	8,337
January	299.0	11	7.6	9.65	593
February	274.8	11	9.6	9.81	545
March	522.2	58	9.6	16.8	1,040
April	803	40	22	26.8	1,590
May	533	22	13	17.2	1,060
June	340	13	10	11.3	674
July	278.4	9.6	8.4	8.98	552
August	255.6	8.4	8.0	8.25	507
September	230.8	8.0	7.2	7.69	458
Water year 1945-46	4,375.2	58	7.2	12.0	8,682

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. 36 E., at Evans Ranch, 700 feet upstream from Evans dividers, 3.1 miles downstream from Campbell Creek, and 3.6 miles northeast from Malad. Former gage at site 200 feet upstream at different datum.

Records available.- December 1940 to December 1943, April to September 1946.

Extremes.- Maximum discharge during period April to September 1946, 48 second-feet Apr. 23, 24 (gage height, 1.57 feet); minimum, 4.8 second-feet Sept. 3 (gage height, 0.69 foot). 1940-43, 1946: Maximum discharge, 254 second-feet Mar. 30, 1943 (gage height, 5.29 feet, site and datum then in use), from rating curve extended above 60 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 below 8 second-feet, which are fair, and those for periods of no gage-height record, 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 cause slight diurnal fluctuations.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	34	a16	11	9.6	7.8
2							-	31	a16	11	9.6	7.2
3							-	28	a15	9.6	9.2	6.2
4							-	22	a14	7.5	8.9	5.5
5							-	23	a13	7.8	8.6	7.2
6							-	26	a12	7.5	7.2	8.9
7							-	26	a11	7.5	6.2	8.9
8							-	27	a11	7.2	5.8	8.9
9							-	26	a10	7.5	5.8	9.2
10							-	24	a10	7.8	6.0	8.9
11							-	22	a10	7.8	7.2	8.6
12							-	22	a10	10	8.6	8.2
13							-	23	a10	10	9.2	7.8
14							-	a23	a10	10	8.9	6.0
15							-	a23	a10	9.6	8.9	5.2
16							-	a22	a9	8.9	8.6	7.0
17							-	a21	a9	9.2	8.2	8.6
18							-	a21	a9	9.6	7.8	8.9
19							-	a20	a9	9.6	8.2	8.9
20							-	a20	a9	10	7.8	8.9
21							-	a20	a9	10	8.2	8.2
22							-	a20	a9	8.2	8.6	8.2
23							48	a20	9.2	7.2	9.6	8.6
24							46	a20	9.6	7.2	8.9	8.6
25							41	h20	7.0	7.5	7.0	7.8
26							37	a20	7.8	9.2	7.5	6.5
27							38	a20	8.9	10	7.0	5.5
28							39	a20	11	10	8.6	6.8
29							38	a19	11	9.6	8.6	7.8
30							36	a18	11	10	8.2	7.8
31							-	a17	-	10	8.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 23-30	323	48	36	40.4	641
May	696	34	17	22.5	1,380
June	316.5	16	7.0	10.6	628
July	278.0	11	7.2	8.97	551
August	250.7	9.6	5.8	8.09	497
September	232.6	9.2	5.2	7.75	461
The period	-	-	-	-	4,158

a No gage-height record; discharge computed on basis of weather records and records for station above Campbell Creek, near Malad.
h Computed from staff-gage reading.

Deep Creek below First Creek, near Malad, Idaho

Location.- Water-stage recorder, lat. 42°14', long. 112°11', in sec. 7, T. 14 S., 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 1946.

Average discharge.- 15 years, 9.20 second-feet.

Extremes.- Maximum discharge during year, 85 second-feet Apr. 19 (gage height, 2.94 feet); minimum recorded, 1.6 second-feet Sept. 3.
1931-46: 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 below 10 second-feet, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Small diversions above station. Flow regulated at times by reservoir 2½ miles above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	5.2	5.2	a6.0			39	59	21	12	6.4	2.3
2	7.0	5.0	4.6	a5.5		a4.5	36	55	21	12	7.3	1.9
3	7.0	4.8	4.5				32	56	21	11	8.7	2.3
4	6.8	4.8	4.3			4.6	30	58	20	12	9.2	3.1
5	7.0	4.6	4.6	a5.0		5.2	32	55	20	14	9.2	4.0
6	5.8	4.6	4.8			5.6	34	50	19	14	8.7	3.7
7	5.6	5.2	5.0	a4.5		5.4	33	48	19	14	8.7	3.7
8	5.6	4.3	4.8	a4.0	b4.0	5.6	32	46	18	14	9.2	4.0
9	5.4	4.6	4.3	a3.5		5.8	32	43	17	14	9.2	4.4
10	5.4	4.6		a4.5		*6.4	32	42	18	14	9.6	4.0
11	5.2	a4.6	a3.5	4.3		7.5	30	40	18	14	9.6	3.7
12	5.2	a4.7		*b4.0		8.2	32	37	17	14	10	3.4
13	5.2	a4.8				10	36	36	16	14	8.7	3.1
14	5.4	*4.8				9.4	47	36	16	13	7.3	3.1
15	5.2	5.2				8.2	50	34	15	12	7.3	3.1
16	5.0	5.2			4.5	8.0	57	32	14	12	6.9	4.4
17	5.2	5.0			b4.5	7.7	64	31	14	12	6.4	5.2
18	5.2	4.8	a3.0		4.5	8.4	74	30	14	10	5.6	4.8
19	5.0	5.0			4.5	10	81	27	14	10	6.0	4.8
20	5.2	4.6			4.5	16	75	26	14	11	6.0	4.4
21	5.0	4.0		b3.5	4.5	17	74	25	14	12	5.6	4.0
22	4.8	3.5	a3.5			16	69	23	13	12	6.9	4.0
23	4.8	3.6	a4.0			16	68	23	14	12	8.7	4.0
24	4.8	3.8	4.5			16	66	23	15	12	8.2	4.0
25	4.8	4.1	5.4		a4.5	15	70	22	15	12	7.3	3.7
26	4.8	4.5	a8.0			16	71	21	15	9.6	6.9	3.4
27	4.5	4.6	a7.0			20	66	21	15	8.2	6.4	3.4
28	4.6	4.6	a10			29	64	24	14	7.3	5.6	3.4
29	4.8	4.6	a11		-	38	62	24	15	7.8	5.6	3.7
30	4.8	5.0	a10		-	44	64	23	14	7.8	4.4	3.4
31	5.4	-	a7.0			44	-	21	-	6.9	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	167.7	7.2	4.5	5.41	333
November	138.7	5.2	3.5	4.62	275
December	150.5	11	-	4.85	299
Calendar year 1945	3,894.7	52	2.4	10.7	7,726
January	122.8	6.0	-	3.96	244
February	118.5	-	-	4.23	235
March	416.5	44	-	13.4	826
April	1,552	81	30	51.7	3,080
May	1,091	59	21	35.2	2,160
June	490	21	13	16.3	972
July	360.6	14	6.9	11.6	715
August	229.0	10	3.4	7.39	454
September	110.4	5.2	1.9	3.68	219
Water year 1945-46	4,947.7	81	1.9	13.6	9,812

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Malad River at Woodruff.
b Stage-discharge relation affected by ice.

Weber River near Oakley, Utah

Location.- Water-stage recorder, lat. 40°44'10", long. 111°14'45", in SE¼NE¼ 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.

Drainage area.- 163 square miles.

Records available.- October 1904 to September 1946.

Average discharge.- 40 years (1906-46), 230 second-feet.

Extremes.- Maximum discharge during year, 1,460 second-feet June 6 (gage height, 3.42 feet); minimum not determined (occurred during period of ice effect).
1904-46: 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, which are fair. Several small diversions above station for irrigation. Flow slightly regulated 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.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	87	76	(*)		b58	125	668	439	230	112	70
2	81	80	b58	b70		b60	118	604	434	220	104	70
3	80	80	b50			61	112	632	484	208	102	68
4	78	78	b55			60	112	732	891	203	98	68
5	76	76	b65			b56	125	844	1,220	192	96	68
6	75	80	73			b56	132	960	1,290	181	94	66
7	73	92	69			b56	129	930	1,150	176	92	66
8	73	96		b65		b56	132	844	1,080	173	96	68
9	73	108				b56	129	910	1,060	165	92	68
10	70	90				*b60	125	816	1,050	160	89	66
11	69	89	b65	b60		63	129	692	830	150	98	70
12	70	87		b60	b55	63	150	618	800	150	106	76
13	78	87			(*)	66	178	604	724	155	100	76
14	73	85				65	217	590	732	155	100	78
15	72	87				65	233	564	716	148	98	76
16	72	85				65	284	558	684	138	89	75
17	72	85				62	350	625	590	138	87	76
18	70	83	b60			70	428	766	507	141	87	76
19	69	81				83	496	844	439	138	85	75
20	69	81				98	532	766	392	129	87	73
21	69	b72		b55		83	544	834	368	125	90	73
22	69	b66				81	532	901	363	123	90	72
23	69	b66	b65			78	577	808	354	127	98	76
24	68	b68				85	653	668	341	141	90	76
25	69	b70				80	766	577	307	136	89	75
					b58							
26	69	*b72				76	816	538	288	134	83	73
27	69	b74				92	854	564	273	125	80	72
28	69	b76	b70			108	825	577	259	123	78	72
29	69	78			-	114	816	538	248	118	75	70
30	72	80			-	118	808	484	242	125	72	69
31	90	-			-	125	-	450	-	121	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,264	90	68	73.0	4,490
November	2,439	108	66	81.3	4,840
December	2,011	-	-	64.9	3,990
Calendar year 1945	67,614	1,080	-	185	134,100
January	1,840	-	-	59.4	3,650
February	1,558	-	-	55.6	3,090
March	2,319	125	56	74.8	4,600
April	11,427	854	112	381	22,670
May	21,506	980	450	694	42,660
June	18,635	1,290	242	621	36,960
July	4,748	230	118	153	9,420
August	2,827	112	70	91.2	5,610
September	2,157	78	66	71.9	4,280
Water year 1945-46	73,731	1,290	-	202	146,300

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

Weber River near Coalville, Utah

Location.- Water-stage recorder, lat. 40°53'40", long. 111°24'00", in SE¼NE¼ sec. 20, T. 2 N., R. 5 E., at bridge 1½ miles upstream from high-water contour for Echo Reservoir, 1½ miles south of Coalville, and 6 miles downstream from Silver Creek.

Drainage area.- 438 square miles.

Records available.- April 1927 to September 1946.

Average discharge.- 19 years, 197 second-feet.

Extremes.- Maximum discharge during year, 781 second-feet Apr. 27 (gage height, 2.83 feet); minimum, 26 second-feet July 23 (gage height, 0.14 foot).
1927-46: 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 or no gage-height record, 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.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	143	167	161		a105	217	477	147	132	41	59
2	103	143	139	147		113	268	357	141	130	38	58
3	100	130	141	*143		117	224	309	137	113	38	53
4	98	122	161	141		110	192	336	132	103	40	49
5	95	117	149	141		105	210	434	279	100	41	45
6	90	112	155	136		108	212	521	525	102	42	46
7	86	139	147	119		97	234	513	493	90	42	46
8	82	145	136	b110	a100	100	232	445	403	76	40	51
9	78	145	134	b105		108	290	517	389	67	39	56
10	76	147	117	b100		*159	260	574	396	67	40	56
11	77	157		b95		194	210	461	274	67	38	54
12	82	159			(*)	203	201	268	198	63	44	57
13	88	163	b110			262	224	232	153	65	46	58
14	84	161				274	260	224	130	62	50	50
15	82	178				210	257	196	119	54	62	48
16	90	194		a95		203	268	183	115	47	60	47
17	92	196				149	276	172	121	42	64	51
18	92	192				190	298	176	122	41	72	54
19	90	178	a110			385	330	183	143	38	80	57
20	94	176				539	342	167	227	36	77	58
21	97	a160				265	336	134	239	34	80	58
22	98	a150			a110	212	304	153	255	31	95	57
23	98	a150				187	298	151	257	30	105	57
24	97	a155				232	489	189	242	33	94	57
25	100	a160	b110			169	640	203	229	40	80	56
26	100	*163		a100		163	700	161	187	36	77	53
27	97	174	b120			212	754	153	169	39	77	50
28	94	165	153			263	715	183	161	38	73	53
29	90	165	189			265	645	220	147	42	68	42
30	92	172	180		-	265	597	210	141	42	65	41
31	136	-	149		-	244	-	167	-	43	63	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,888	136	76	93.2	5,730
November	4,711	196	112	157	9,340
December	3,997	189	-	129	7,930
Calendar year 1945	63,066	720	72	173	125,100
January	3,353	161	-	108	6,650
February	2,930	-	-	105	5,810
March	6,208	539	97	200	12,310
April	10,483	754	192	349	20,790
May	8,669	574	134	280	17,190
June	6,671	525	115	222	13,230
July	1,902	132	30	61.4	3,770
August	1,871	105	38	60.4	3,710
September	1,577	59	41	52.6	3,130
Water year 1945-46	55,260	754	30	151	109,600

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of 1 discharge measurement, weather records, and records for other upper Weber River station.
b Stage-discharge relation affected by ice.

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 1946.

Extremes.- Maximum contents during year, 74,240 acre-feet May 20 to June 6, June 9-11 (elevation, 5,560.2 feet); minimum contents, 19,200 acre-feet Sept. 30 (elevation, 5,510.95 feet).
1930-46: Maximum contents, 74,460 acre-feet May 31, 1937 (elevation, 5,560.35 feet); no contents Sept. 12 to Dec. 3, 1931, Sept. 24 to Nov. 2, 1934, Oct. 12 to Nov. 21, 1944.

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 elevations 5,450 feet (bottom of outlet tunnel) and 5,560 feet (top of radial gates in spillway). Dead storage negligible. Elevation of spillway crest is 5,543 feet. Water is used for irrigation on Echo project. Records give contents represented by daily gage readings to half-tenths at 6 a.m.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33,000	33,590	36,260	40,660	41,550	42,220	56,060	71,820	74,240	67,090	49,990	32,960
2	33,000	33,690	36,360	40,880	41,550	42,280	56,840	72,040	74,240	66,740	49,500	32,280
3	33,050	33,790	36,360	41,000	41,600	42,330	57,490	72,330	74,240	66,390	48,950	31,700
4	33,050	33,790	36,410	41,110	41,600	42,440	58,150	72,470	74,240	65,970	48,400	30,990
5	33,050	33,790	36,570	41,220	41,600	42,500	58,680	72,690	74,240	65,550	47,800	30,330
6	33,050	33,790	36,720	41,330	41,600	42,550	59,280	72,770	74,240	65,130	47,260	29,730
7	33,050	33,790	36,820	41,440	41,660	42,610	60,010	73,130	74,160	64,650	46,780	29,080
8	33,050	33,890	36,980	41,440	41,660	42,670	60,680	73,430	74,160	64,160	46,310	28,310
9	33,050	33,890	37,080	41,490	41,660	42,720	61,490	73,800	74,240	63,680	45,780	27,640
10	33,050	33,940	37,080	41,490	41,660	42,780	62,310	73,800	74,240	63,200	45,310	26,920
11	33,000	34,040	37,130	41,490	41,660	43,060	62,990	73,800	74,240	62,720	44,840	26,270
12	33,000	34,140	37,240	41,490	41,660	43,410	63,610	73,650	73,720	62,100	44,320	25,620
13	33,000	34,280	37,400	41,440	41,660	43,690	64,370	73,650	73,210	61,560	43,860	25,020
14	33,000	34,340	37,500	41,440	41,660	44,380	65,200	73,650	72,550	60,950	43,410	24,470
15	33,000	34,380	37,550	41,440	41,660	44,960	66,110	73,800	71,750	60,280	42,720	23,880
16	33,050	34,640	37,610	41,380	41,660	45,540	66,670	73,800	70,950	59,680	42,050	23,850
17	33,050	34,780	37,710	41,380	41,660	45,950	67,160	73,800	70,150	58,880	41,490	22,720
18	33,100	34,980	37,870	41,380	41,660	46,310	67,590	74,090	69,580	58,280	40,940	22,350
19	33,100	35,140	37,920	41,380	41,660	46,960	68,150	74,160	69,220	57,620	40,280	22,070
20	33,100	35,290	37,970	41,380	41,660	48,160	68,720	74,240	68,860	56,900	39,680	21,830
21	33,150	35,390	38,180	41,380	41,660	49,320	69,150	74,240	68,860	56,250	39,040	21,580
22	33,200	35,390	38,450	41,380	41,660	49,930	69,440	74,240	68,860	55,540	38,400	21,350
23	33,200	35,440	38,660	41,330	41,720	50,480	69,790	74,240	68,790	54,830	37,920	21,110
24	33,250	35,490	38,820	41,330	41,770	51,040	69,940	74,240	68,720	54,120	37,400	20,870
25	33,250	35,590	38,930	41,440	41,940	51,600	70,230	74,240	68,580	53,490	36,880	20,640
26	33,300	35,700	39,040	41,490	42,050	52,100	70,440	74,240	68,440	52,980	36,310	20,440
27	33,300	35,800	39,140	41,490	42,110	52,540	70,800	74,240	68,220	52,480	35,700	20,170
28	33,350	35,900	39,300	41,490	42,160	53,110	71,090	74,240	68,010	51,970	35,140	19,860
29	33,350	36,000	39,520	41,490	-	53,870	71,160	74,240	67,730	51,410	34,580	19,550
30	33,350	36,100	40,010	41,550	-	54,640	71,460	74,240	67,440	50,980	33,990	19,200
31	33,400	-	40,440	41,550	-	55,340	-	74,240	-	50,480	33,490	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	5,526.9	33,000	+590
Nov. 1	5,527.5	33,590	+2,670
Dec. 1	5,530.15	36,260	+4,400
Calendar year 1945	-	-	+36,920
Jan. 1	5,534.3	40,660	+890
Feb. 1	5,535.1	41,550	+670
Mar. 1	5,535.7	42,220	+13,840
Apr. 1	5,547.1	56,060	+15,760
May 1	5,558.55	71,820	+2,420
June 1	5,560.2	74,240	-7,150
July 1	5,555.25	67,090	-17,100
Aug. 1	5,542.3	49,990	-17,030
Sept. 1	5,526.85	32,960	-14,100
Oct. 1	5,510.5	18,860	-
Water year 1945-46	-	-	-14,140

Weber River at Echo, Utah

Location.- Water-stage recorder, lat. 40°58'05", long. 111°26'15", in NE¼NE¼ sec. 25, T. 3 N., R. 4 E., 900 feet 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 1946.

Average discharge.- 19 years, 257 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,060 second-feet Apr. 27 (gage height, 4.30 feet); minimum daily, 4.9 second-feet Dec. 21.
1927-46: Maximum discharge, 2,370 second-feet June 2, 1943; maximum gage height, 6.17 feet June 2, 3, 1944; minimum daily discharge, 2 second-feet Feb. 27 to Mar. 2, Mar. 31, Apr. 3-13, 1940.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	125	125	153	80	134	127	10	666	335	351	296	374
2	125	132	132	118	134	127	10	547	338	348	296	384
3	125	142	113	134	134	125	11	521	317	361	302	394
4	125	153	113	134	134	125	11	543	299	374	323	390
5	125	153	113	134	134	125	12	722	395	380	320	374
6	118	153	113	134	134	125	13	722	671	374	302	371
7	109	153	113	134	134	125	14	633	705	371	290	408
8	109	153	114	134	134	125	14	548	486	371	288	414
9	109	153	114	134	134	123	15	755	512	358	288	411
10	109	153	114	134	134	123	15	866	568	358	302	394
11	109	151	97	134	134	123	16	743	568	397	311	374
12	109	151	76	134	134	123	17	514	586	411	308	364
13	109	151	76	134	134	90	18	432	568	400	296	358
14	109	151	76	134	134	7.0	50	400	564	397	359	367
15	109	151	76	134	134	7.0	209	387	586	384	384	364
16	109	151	76	134	134	7.0	303	364	595	377	371	326
17	109	151	76	134	134	7.0	373	307	488	380	367	285
18	109	151	77	134	134	7.3	404	304	404	377	387	218
19	109	151	77	134	132	7.3	463	342	394	367	394	196
20	109	153	56	134	132	8.1	560	335	361	374	404	196
21	109	153	4.9	134	132	8.1	628	311	348	380	408	196
22	109	153	75	134	130	8.1	528	326	361	384	397	196
23	109	153	134	134	130	8.1	598	345	374	371	371	192
24	109	153	138	134	130	8.1	818	367	380	351	361	181
25	109	153	138	134	129	8.5	933	371	364	323	380	181
26	109	153	138	134	129	8.9	966	367	361	302	390	206
27	109	153	140	134	129	9.3	1,030	329	354	290	380	215
28	109	153	140	134	127	9.7	1,050	425	354	293	361	220
29	109	153	91	134	-	9.7	916	451	358	305	361	238
30	109	153	5.5	134	-	9.7	801	439	358	308	351	236
31	109	-	58	134	-	10	-	372	-	296	351	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,468	125	109	112	6,880
November	4,512	153	125	150	8,950
December	3,017.4	153	4.9	97.3	5,980
Calendar year 1945	65,820.7	647	4.3	180	130,500
January	4,084	134	80	132	8,100
February	3,712	134	127	133	7,360
March	1,734.9	127	7.0	56.0	3,440
April	10,806	1,050	10	360	21,430
May	14,760	866	304	476	29,280
June	13,332	705	299	444	26,440
July	11,113	411	290	358	22,040
August	10,705	408	288	345	21,230
September	9,023	414	181	301	17,900
Water year 1945-46	90,267.3	1,050	4.9	247	179,000

Weber River at Devils Slide, Utah

Location.- Water-stage recorder, lat. 41°03'40", long. 111°34'25", in SE¼SE¼ sec. 23, T. 4 N., R. 3 E., 350 feet downstream from highway underpass on U. S. Highway 30S, 1½ miles west of Devils Slide, and 1¾ miles downstream from Lost Creek.

Drainage area.- 1,100 square miles.

Records available.- February 1905 to September 1946.

Average discharge.- 41 years, 441 second-feet.

Extremes.- Maximum discharge during year, 1,990 second-feet (regulated) Apr. 27 (gage height, 5.25 feet); minimum not determined.
1905-46: Maximum discharge observed, 6,000 second-feet May 22, 1920; minimum daily, 18 second-feet (regulated) Sept. 23, 1934.

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation. Flow regulated by Echo Reservoir (see p. 88).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	147	192	b160		183	179	1,270	461	381	313	389
2	136	157	177	173		185	181	1,080	452	370	313	401
3	136	162	154	170		198	170	998	422	378	313	410
4	140	175	145	*170		189	160	970	381	393	334	401
5	142	175	150	168		183	172	1,120	434	397	334	381
6	139	175	150	166		189	198	1,130	706	385	313	378
7	127	179	152	162	a160	181	221	977	790	381	300	410
8	126	177	150	166		179	224	880	526	381	293	434
9	124	173	150	160		189	229	1,060	526	362	290	426
10	124	175	150	162		207	221	1,240	613	351	296	414
11	122	179	134	159		234	207	1,070	603	381	313	389
12	126	181	117	b160		242	224	820	613	401	316	378
13	127	183	b110	b160	*160	244	277	679	603	397	296	370
14	129	179	b110		160	138	405	619	587	397	351	378
15	130	183	b110		162	112	706	571	598	401	401	381
16	130	196	a110		162	104	984	536	608	393	385	340
17	126	196	a110		160	98	1,190	465	536	389	378	316
18	129	194	a110		164	104	1,400	422	434	385	389	229
19	129	194	a110		166	123	1,390	439	418	374	401	200
20	129	187	a105		170	173	1,530	422	381	370	418	198
21	132	183	a85		172	152	1,610	381	355	370	426	196
22	132	189	a140	a160	177	139	1,430	378	359	385	422	194
23	134	179	a170		192	129	1,370	410	378	378	405	194
24	134	181	a170		196	134	1,660	465	401	378	385	177
25	133	183	a170		224	124	1,790	461	393	355	397	177
26	133	185	a170		196	123	1,880	461	385	323	418	187
27	134	*187	a170		194	132	1,910	426	374	309	397	207
28	133	189	a190		196	157	1,900	561	370	303	381	209
29	133	192	a150		-	185	1,730	613	370	320	381	234
30	134	194	a100		-	179	1,480	592	374	330	370	234
31	136	-	b130		-	183	-	512	-	313	366	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,079	142	122	132	8,090
November	5,429	196	147	181	10,770
December	4,341	192	85	140	8,610
Calendar year 1945	88,341	808	59	242	175,200
January	5,016	173	-	162	9,950
February	4,771	224	-	170	9,460
March	5,092	244	98	164	10,010
April	27,028	1,910	160	901	53,610
May	22,028	1,270	378	711	43,690
June	14,451	790	355	482	28,660
July	11,431	401	303	369	22,670
August	11,095	426	290	358	22,010
September	9,232	434	177	308	18,310
Water year 1945-46	123,993	1,910	85	340	245,800

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations at Echo and at Gateway.
b Stage-discharge relation affected by ice.

Weber River at Gateway, Utah

Location.- Water-stage recorder, lat. 41°08', long. 111°50', in NW¼SW¼ 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 1946. October 1889 to July 1903 at site 1 mile downstream, published as Weber River near Uinta.

Average discharge.- 26 years (1920-46), 574 second-feet.

Extremes.- Maximum discharge during year, 3,320 second-feet (regulated) Apr. 28 (gage height, 5.78 feet); minimum daily, 180 second-feet (regulated) Dec. 21.
1889-1903,1919-46: Maximum discharge observed, 7,980 second-feet May 31, 1896; minimum, 45 second-feet (regulated) Sept. 24, 1934; minimum daily, 46 second-feet Sept. 23, 1934.

Remarks.- Records excellent except those for periods of ice effect, which are fair. Many diversions above and below station for irrigation. Flow regulated by Echo and East Canyon Reservoirs (see pp. 88, 96).

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	246	240	279	276	237	390	650	2,250	884	618	557	470
2	237	253	269	262	240	394	679	1,890	845	618	547	503
3	234	253	243	293	240	410	645	1,750	817	618	542	503
4	234	262	269	*293	250	406	598	1,650	740	628	552	503
5	237	259	282	293	253	402	612	1,720	681	623	572	489
6	237	262	279	282	262	406	664	1,790	833	628	557	474
7	220	265	282	262	265	394	798	1,590	976	613	547	489
8	214	262	279	269	262	398	787	1,470	767	613	542	493
9	211	262	265	250	265	426	787	1,500	654	577	527	489
10	209	265	269	250	269	485	734	1,820	724	562	518	484
11	206	269	303	250	303	558	684	1,620	702	557	522	470
12	209	269	300	253	310	558	709	1,410	707	613	562	460
13	211	272	276	b250	a310	684	825	1,220	713	618	542	438
14	214	262	282	b250	*310	594	1,070	1,120	691	613	537	446
15	214	276	b280	b250	318	435	1,360	1,020	670	623	557	465
16	217	310	b280	b250	318	398	1,690	988	676	618	532	428
17	214	300	b280	b250	310	328	1,970	924	686	597	513	420
18	214	293	b280	b245	318	359	2,270	861	713	602	508	352
19	214	293	b280	b245	325	447	2,510	845	681	537	513	333
20	214	289	b280	b245	328	545	2,650	811	665	597	518	318
21	214	265	b180	b245	332	523	2,780	740	633	597	542	311
22	217	259	b210	b245	347	435	2,590	713	644	613	557	300
23	214	265	b260	b245	374	394	2,440	751	639	618	557	296
24	217	259	b260	243	402	435	2,730	800	670	628	582	272
25	220	265	b260	243	459	426	2,900	778	665	613	527	258
26	220	265	262	240	422	422	3,110	772	654	592	518	258
27	220	269	256	240	414	497	3,120	751	644	582	508	279
28	220	*269	354	246	410	598	3,140	924	649	542	489	282
29	220	269	608	240	-	669	2,980	1,040	639	547	484	293
30	223	279	386	240	-	655	2,630	1,040	618	582	474	300
31	237	-	262	243	-	660	-	976	-	532	456	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,828	246	206	220	13,540
November	8,080	310	240	269	16,030
December	8,855	608	180	286	17,560
Calendar year 1945	159,772	1,610	170	438	316,900
January	7,888	293	240	254	15,650
February	8,853	459	237	316	17,560
March	14,731	684	328	475	29,220
April	51,112	3,140	598	1,704	101,400
May	37,534	2,250	713	1,211	74,450
June	21,280	976	618	709	42,210
July	18,539	628	542	598	36,770
August	16,459	582	456	531	32,650
September	11,876	503	258	396	23,560
Water year 1945-46	212,035	3,140	180	581	420,600

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for other Weber River stations.
b Stage-discharge relation affected by ice.

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., at 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 1946. Records collected in 1904 by State engineer.

Extremes.- Maximum discharge observed during year, 4,470 second-feet (regulated) Apr. 28, 29 (gage height, 18.20 feet); minimum observed, 15 second-feet (regulated) Sept. 2 (gage height, 1.60 feet).

1904-46: Maximum discharge observed, 7,580 second-feet June 6, 1909 (gage height, 19.1 feet); practically no flow during latter part of several summers since 1915 (result of regulation).

Remarks.- Records fair. 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. 88, 96, 100).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	320	270	433	492	494	552	1,270	3,560	948	61	42	21
2	297	314	437	446	482	517	1,200	2,590	865	60	42	15
3	270	317	394	488	482	456	1,180	2,140	752	58	40	34
4	264	320	431	507	479	460	1,160	2,080	580	58	38	27
5	264	310	417	520	503	534	1,180	2,040	503	51	35	32
6	267	298	410	536	503	600	1,240	2,020	347	44	32	35
7	270	359	388	556	500	616	1,320	2,070	309	41	31	25
8	271	345	413	556	507	631	1,530	1,820	274	48	31	29
9	274	359	426	524	513	644	1,650	1,510	235	49	29	31
10	274	404	433	502	536	684	1,590	1,530	159	47	34	30
11	297	397	448	546	536	894	1,520	1,570	116	49	33	36
12	309	383	482	473	540	935	1,540	1,390	113	48	31	34
13	321	366	446	484	538	823	1,630	1,140	106	47	42	36
14	326	352	424	488	546	717	2,010	1,030	101	44	37	35
15	337	394	385	488	538	717	2,180	965	87	46	37	38
16	361	404	404	484	511	724	2,610	875	80	49	40	40
17	328	426	430	484	486	732	3,030	658	80	46	38	43
18	331	437	435	503	517	784	3,380	534	87	46	40	42
19	344	444	395	496	515	930	3,790	422	89	43	44	81
20	345	415	399	494	511	1,080	4,180	399	89	43	45	77
21	362	401	392	490	513	1,020	4,320	385	78	47	58	71
22	376	401	383	502	524	962	4,420	386	73	43	55	67
23	397	412	386	513	566	899	4,060	397	68	43	59	63
24	422	419	390	496	574	930	3,700	648	63	47	62	56
25	404	419	390	500	580	940	3,660	538	67	48	49	59
26	415	415	502	500	588	903	3,750	502	71	46	48	59
27	430	415	492	503	610	948	4,130	616	70	48	44	61
28	441	419	574	505	562	1,070	4,470	1,040	67	48	41	62
29	456	426	673	502	-	1,120	4,470	1,250	64	46	38	52
30	467	433	684	498	-	1,190	4,140	1,200	61	44	32	48
31	490	-	536	498	-	1,300	-	1,140	-	40	27	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	10,730	490	264	346	21,280
November	11,474	444	270	382	22,760
December	13,832	684	383	446	27,440
Calendar year 1945	185,227	3,430	44	507	367,400
January	15,574	556	446	502	30,890
February	14,754	610	479	527	29,260
March	25,312	1,300	456	817	50,210
April	80,310	4,470	1,160	2,677	159,300
May	38,445	3,560	385	1,240	76,250
June	6,602	948	61	220	13,090
July	1,486	61	40	47.9	2,950
August	1,254	62	27	40.5	2,490
September	1,339	81	15	44.6	2,660
Water year 1945-46	221,112	4,470	15	606	438,600

Silver Creek near Wanship, Utah

Location.- Water-stage recorder, lat. 40°45'25", long. 111°28'15", in SW¼SW¼ sec. 2, T. 1 S., R. 4 E., 1.3 miles upstream from Tollgate Canyon, 5 miles southwest of Wanship, and 5¾ miles upstream from mouth.

Drainage area.- 25.8 square miles.

Records available.- October 1941 to September 1946 (discontinued). March 1939 to September 1941 in files of Bureau of Reclamation, as Silver Creek near Atkinson.

Extremes.- Maximum discharge during year, 134 second-feet Mar. 30 (gage height, 2.80 feet); minimum, 0.2 second-foot June 26-30.
1941-46: Maximum discharge, 430 second-feet Apr. 4, 1942 (gage height, 4.28 feet); minimum, practically no flow at times in 1942, 1943.

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

Discharge, in second-feet, water year October 1945 to September 19[illegible]

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	7.8	8.4	a4.0		7.3	38	15	4.1	0.3	0.6	0.9
2	1.1	6.3		*7.8		7.0	32	12	3.6	.3	.4	.5
3	1.0	5.4		1.0		6.8	24	9.2	2.4	.3	.4	.4
4	1.0	4.5				6.3	27	12	1.2	.3	.4	.4
5	.9	4.3				*6.5	35	9.2	1.0	.3	.4	.4
6	1.5	b4.2				5.4	32	8.6	1.0	.3	.5	.4
7	2.0	b4.0				7.0	33	8.6	1.0	.4	.5	.4
8	1.8	4.3				9.7	39	10	.9	.6	.4	.5
9	1.5	5.4				7.0	43	17	.7	.3	.4	.5
10	1.1	5.2				6.3	30	22	.7	.3	.4	.4
11	1.3	5.4				7.0	23	14	.8	.3	.5	.4
12	1.8	4.1			(*)	10	22	10	.9	.4	.6	.7
13	2.1	3.6				19	24	8.4	.9	.4	.6	.6
14	2.7	b3.5				23	22	8.9	.7	.3	.9	.8
15	2.5	5.2			a5.0	19	19	8.6	.5	.3	1.0	.7
16	2.8	4.9	a4.0			19	14	8.1	.4	.3	.5	.7
17	2.8	5.6		a3.0		18	12	5.8	.4	.3	.4	.8
18	2.4	7.8				22	11	5.4	.5	.3	.4	.7
19	2.0	6.3				36	12	4.3	.5	.3	.4	.7
20	2.2	5.8				59	12	3.8	.4	.3	.4	.8
21	a2.4	b5.0				38	12	3.8	.4	.3	.5	.8
22	*2.5	b5.0				25	12	2.5	.4	.4	2.0	1.0
23	2.1	a6.0				28	10	3.9	.3	.5	3.0	1.0
24	2.8	a7.0				25	10	7.5	.3	1.1	1.4	.7
25	4.1	a8.0				20	10	6.8	.3	.6	1.1	.6
26	3.9	8.9				20	12	5.4	.3	.5	1.1	.9
27	3.6	*8.1			8.1	30	17	4.9	.3	.4	1.1	.6
28	2.8	5.8			7.3	53	18	8.1	.3	.4	.6	.8
29	3.2	4.3			-	74	18	13	.3	.6	.6	.8
30	4.5	6.5			-	87	17	8.9	.3	.6	.7	.9
31	13	-			-	57	-	5.2	-	.8	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	81.6	13	0.9	2.63	162
November	168.2	8.9	3.5	5.61	334
December	128.4	-	-	4.14	255
Calendar year 1945	2,248.8	71	-	6.16	4,460
January	99.8	-	-	3.22	198
February	145.4	-	-	5.19	288
March	758.3	87	5.4	24.5	1,500
April	640	43	10	21.3	1,270
May	270.9	22	2.5	8.74	537
June	25.8	4.1	.3	.86	51
July	12.8	1.1	.3	.41	25
August	23.2	3.0	.4	.75	46
September	19.8	1.0	.4	.66	39
Water year 1945-46	2,374.2	87	.3	6.50	4,700

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of 1 discharge measurement, weather records, and records for other Weber River stations.
b Stage-discharge relation affected by ice.

Chalk Creek at Coalville, Utah

Location.- Water-stage recorder and concrete control, lat. 40°55'10", long. 111°24'00", in NE¼SE¼ sec. 8, T. 2 N., R. 5 E., 100 feet downstream from bridge on U. S. Highway 189 in Coalville and a third of a mile upstream from mouth.

Drainage area.- 253 square miles.

Records available.- October 1904 to December 1905, April 1927 to September 1946.

Average discharge.- 19 years (1927-46), 54.2 second-feet.

Extremes.- Maximum discharge during year, 513 second-feet Apr. 27 (gage height, 2.04 feet); minimum, 5.8 second-feet July 23.

1927-46: 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. Several diversions above station for irrigation, none below. Flow slightly regulated by Chalk Creek Reservoir (capacity, 1,200 acre-feet).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	30	25	23	22	23	108	325	181	34	12	14
2	23	27	14	24	22	23	91	294	175	40	8.7	14
3	23	25	17	25	22	37	77	298	160	40	8.0	13
4	22	24	23	27	22	24	63	325	154	37	8.0	12
5	21	23	30	27	21	21	75	345	145	35	8.7	11
6	21	23	28	24	22	24	96	349	143	32	9.4	12
7	20	27	25	19	22	21	103	325	140	32	10	12
8	18	21	22	23	21	19	98	283	131	31	8.7	12
9	17	23	21	27	21	30	108	294	123	28	8.7	12
10	18	25	19	19	22	50	96	291	116	a27	7.3	12
11	19	25	22	17	21	67	86	258	106	a26	8.0	12
12	21	23	22	22	21	53	113	227	98	a25	8.0	12
13	21	25	21	21	21	73	175	210	93	a24	9.4	12
14	21	15	20	23	20	63	230	210	84	a24	10	12
15	21	31	19	23	21	38	223	197	69	a23	10	10
16	21	31	18	22	21	35	258	187	67	a22	8.7	8.7
17	22	31	19	21	21	28	287	187	67	21	9.4	8.7
18	22	27	19	21	20	43	317	191	65	20	10	8.7
19	22	19	18	21	21	63	394	191	63	18	10	9.4
20	22	27	19	21	21	82	430	178	59	15	11	9.4
21	22	16	a20	20	20	50	453	184	53	11	12	8.7
22	22	a17	21	19	22	48	369	184	53	8.7	12	6.6
23	23	a20	21	19	22	43	378	175	53	6.2	14	6.2
24	22	a20	22	20	28	57	416	181	52	6.2	15	7.3
25	22	a23	22	21	41	45	462	166	50	6.6	14	8.0
26	22	27	22	21	24	41	476	157	45	9.4	13	9.4
27	22	27	23	21	23	53	485	163	43	9.4	13	12
28	21	24	24	21	27	71	439	194	40	10	10	12
29	21	28	28	22	-	86	426	203	37	12	8.7	14
30	21	28	28	22	-	93	434	194	32	13	9.4	17
31	28	-	21	22	-	120	-	181	-	12	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	665	28	17	21.5	1,320
November	732	30	15	24.4	1,450
December	673	30	14	21.7	1,330
Calendar year 1945	16,794.1	289	9.0	46.0	33,310
January	678	27	17	21.9	1,340
February	632	41	20	22.6	1,250
March	1,524	120	19	49.2	3,020
April	7,766	485	63	259	15,400
May	7,147	349	157	231	14,180
June	2,697	181	32	89.9	5,350
July	658.5	40	6.2	21.2	1,310
August	318.1	15	7.3	10.3	631
September	328.1	17	6.2	10.9	651
Water year 1945-46	23,818.7	485	6.2	65.3	47,230

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

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 Hell Canyon, and 9½ miles northeast of Croydon.

Drainage area.- 133 square miles.

Records available.- February 1921 to December 1923. April 1941 to September 1946.

Extremes.- Maximum discharge during year, 400 second-feet Apr. 21 (gage height, 47.2 feet); minimum, 6.5 second-feet Sept. 16.
1921-23, 1941-46: 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, 3 second-feet for several days in August and September 1941, 1942.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. No diversion above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	12	10	13			59	214	a58	18	9.2	7.4
2	8.8	12	9.5	12			55	190	a52	17	8.8	7.7
3	8.4	13	9.0	10			46	187	a50	16	8.0	7.1
4	8.0	12	9.5	9.6			45	185	45	16	8.0	7.1
5	8.0	12	9.5	9.2	9.0	15	58	182	43	16	7.7	7.1
6	8.4	13	9.6	9.2			70	177	42	15	7.7	7.1
7	8.0	12	9.6				75	158	40	14	7.7	7.1
8	8.0	10				17	75	146	38	14	7.4	7.4
9	8.4	12				18	74	148	37	14	7.1	7.7
10	8.8	12				19	64	132	35	14	7.1	7.7
11	9.2	12			10	21	62	116	33	12	7.1	7.4
12	9.6	11				24	f93	106	32	12	8.4	7.4
13	10	12				26	120	99	32	13	9.2	7.1
14	10	10				*23	177	95	29	12	8.8	7.1
15	9.6	12	9.0			22	205	94	28	12	8.4	7.1
16	10	12				22	224	90	25	11	7.7	7.1
17	11	11				23	270	85	25	11	7.4	7.4
18	10	11				26	a310	82	27	11	7.4	8.0
19	10	11		9.0	11	37	a340	79	29	10	7.4	8.0
20	10	9.0				58	a360	75	25	10	7.7	8.0
21	10	7.5				49	a370	71	25	9.6	8.8	8.0
22	10	8.0	9.5		12	40	a320	68	23	9.6	10	8.0
23	10	8.5	10		13	36	a300	72	22	9.6	12	8.0
24	10	9.5	10			37	304	69	24	11	11	8.4
25	9.6	10	11			33	316	62	23	11	9.2	8.4
26	9.6	10	11		15	33	338	59	21	11	8.8	8.4
27	9.6	*10	12			40	338	61	20	10	8.4	8.0
28	9.6	10	15			63	317	67	19	9.2	8.0	8.0
29	9.6	10	19		-	72	291	a64	19	10	7.7	8.0
30	10	10	16		-	68	264	a62	18	12	7.4	8.0
31	13	-	15		-	64	-	a61	-	10	7.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	294.0	13	8.0	9.48	583
November	324.5	13	7.5	10.8	644
December	321.2	19	-	10.4	637
Calendar year 1945	8,215.0	182	6.5	22.5	16,300
January	288.0	13	-	9.29	571
February	307.0	-	-	11.0	609
March	976	72	-	31.5	1,940
April	5,940	370	45	198	11,780
May	3,356	214	59	108	6,660
June	939	58	18	31.3	1,860
July	381.0	18	9.2	12.3	756
August	256.9	12	7.1	8.29	510
September	229.2	8.4	7.1	7.64	455
Water year 1945-46	13,612.8	370	7.1	37.3	27,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for nearby stations.
f Computed on basis of partly estimated gage-height record.
Note.- Stage-discharge relation affected by ice Nov. 19-26, 28, Dec. 2-5, 8-28, Dec. 31 to Jan. 2, Jan. 7 to Mar. 13.

East Canyon Reservoir near Morgan, Utah

Location.- Staff gage, lat. 40°55'20", long. 111°35'50", in NE¼ 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 1946 in reports of Geological Survey. November 1931 to September 1946 in reports of Weber River water commissioner.

Extremes.- Maximum contents observed during year, 28,870 acre-feet May 30 (gage height, 141.09 feet); no contents Sept. 11-28.
1931-46: Maximum contents, 29,170 acre-feet June 2, 1943 (gage height, 141.67 feet); no contents Nov. 1, 1931, Sept. 2 to Nov. 1, 1934, Sept. 11 to Oct. 18, 1937, Sept. 11-28, 1946.

Remarks.- Reservoir was formed in 1896 by a 58-foot rock-fill dam (capacity, 3,850 acre-feet); was raised 25 feet in 1900 (capacity, 9,000 acre-feet); 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 heights 0.0 foot (bottom of outlet tunnel) and 140.8 feet (top of flashboards in spillway). Gage height of spillway crest is 135 feet. No dead storage. Gage read once daily. Water is used for irrigation in Davis and Weber Counties.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20,750	-	-	-	-	-	-	28,150	28,800	-	-	1,230
2	-	-	23,150	-	-	-	-	28,170	28,780	-	-	-
3	-	-	-	-	23,540	20,130	-	28,200	28,800	21,230	-	-
4	-	21,270	-	-	-	-	23,780	28,200	28,740	-	-	880
5	-	-	-	-	-	-	-	28,200	28,740	-	10,210	-
6	-	-	-	21,730	-	-	-	28,170	28,720	-	-	-
7	20,780	-	-	-	-	-	24,260	28,140	28,690	19,590	9,250	-
8	-	-	-	-	-	-	-	28,250	28,720	-	-	420
9	-	-	22,720	-	-	-	-	28,300	28,720	-	-	-
10	-	-	-	-	23,540	19,380	-	28,560	28,740	18,260	-	-
11	-	-	-	-	-	-	-	28,660	28,760	-	-	0
12	-	-	-	-	-	-	-	28,720	28,760	-	5,000	-
13	-	-	-	22,500	-	-	-	28,650	28,760	-	-	-
14	20,880	-	-	-	-	-	25,620	28,610	28,760	16,850	4,100	-
15	-	-	-	-	-	-	26,010	28,690	28,740	-	-	-
16	-	-	-	-	-	-	26,310	28,740	28,740	-	-	-
17	-	-	-	-	-	-	26,690	28,760	-	-	-	-
18	-	22,260	-	-	22,150	20,000	27,000	28,780	-	15,550	-	-
19	-	-	-	-	-	-	27,390	28,780	-	-	3,225	-
20	-	-	-	22,840	-	-	27,740	28,760	-	-	-	-
21	20,970	-	-	-	-	-	28,040	-	-	14,100	2,680	-
22	-	-	-	-	-	-	28,090	28,770	-	-	-	-
23	-	-	21,080	-	-	-	28,110	28,760	25,920	-	-	-
24	-	-	-	-	21,120	21,770	28,090	28,760	-	12,840	-	-
25	-	22,690	-	-	-	21,980	28,090	28,780	-	-	1,880	-
26	-	-	-	-	-	-	28,090	28,760	-	-	-	-
27	-	-	-	23,150	-	-	28,090	28,720	-	-	-	-
28	21,040	-	-	-	a20,550	-	28,040	28,740	-	12,180	1,640	-
29	-	-	-	-	-	-	28,130	28,820	-	-	-	-
30	-	a23,020	21,620	-	-	-	28,130	28,870	22,650	-	-	a100
31	a21,110	-	a21,630	a23,370	-	23,150	-	28,820	-	11,350	a1,330	-

a No gage-height record; contents interpolated.

Monthly gage height and contents, water year October 1945 to September 1946

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	124.34	20,750	-
Oct. 31	-	a21,110	+360
Nov. 30	-	a23,020	+1,910
Dec. 31	-	a21,630	-1,390
Calendar year 1945	-	-	+630
Jan. 31	-	a23,370	+1,740
Feb. 28	-	a20,550	-2,820
Mar. 31	129.67	23,150	+2,600
Apr. 30	139.67	28,130	+4,980
May 31	141.00	28,820	+690
June 30	128.59	26,650	-6,170
July 31	94.00	11,350	-11,300
Aug. 31	-	a1,330	-10,020
Sept.30	-	a100	-1,230
Water year 1945-46	-	-	-20,650

a No gage-height record; contents interpolated.

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 1946 in reports of Geological Survey. October 1931 to September 1946 in reports of Weber River water commissioner.

Average discharge.- 15 years (1931-46), 48.3 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 284 second-feet Apr. 24, 25; minimum daily, 6.8 second-feet Dec. 21 to Jan. 9, Mar. 11-14, 17-23.
1931-46: 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 except those for periods of no gage-height record, which are fair. No diversions between station and East Canyon Reservoir (see preceding page) which completely regulates flow.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	22	8.9	6.8	7.5	103	105	198	114	231	229	75
2	23	22	35	6.8	7.5	103	105	160	105	229	224	75
3	23	22	61	6.8	22	103	106	158	100	231	222	72
4	22	15	61	6.8	50	103	106	166	88	229	229	72
5	22	8.9	61	6.8	50	103	107	166	81	224	231	70
6	23	8.9	60	6.8	50	103	107	162	78	222	226	62
7	23	8.9	60	6.8	50	103	108	132	72	226	231	39
8	22	8.9	60	6.8	50	103	108	101	61	229	233	29
9	22	8.9	60	6.8	50	103	112	103	a61	224	229	29
10	21	8.9	60	7.5	76	53	112	103	a56	224	226	30
11	21	8.9	82	7.5	103	6.8	108	145	a52	229	231	36
12	21	8.9	103	7.5	103	6.8	107	185	52	226	233	a40
13	21	8.9	103	7.5	103	6.8	107	168	51	224	226	a38
14	21	8.9	103	7.5	103	6.8	130	117	47	229	165	a37
15	21	8.9	103	7.5	103	7.5	152	100	45	229	129	a36
16	21	8.9	103	7.5	103	7.5	159	103	42	229	127	a35
17	21	8.9	103	7.5	103	6.8	164	107	160	231	125	a33
18	21	8.9	103	7.5	103	6.8	160	108	231	233	121	a31
19	21	8.9	103	7.5	103	6.8	162	108	229	231	121	a32
20	21	8.9	87	7.5	103	6.8	194	108	229	229	117	a32
21	21	8.9	6.8	7.5	103	6.8	245	110	231	231	119	a32
22	21	8.9	6.8	7.5	103	6.8	271	110	233	231	121	a32
23	21	8.9	6.8	7.5	103	6.8	276	110	231	233	119	a32
24	22	8.9	6.8	7.5	103	30	284	112	233	236	116	a32
25	22	8.9	6.8	7.5	103	65	284	112	231	224	89	a32
26	22	8.9	6.8	7.5	103	105	281	110	231	226	70	a31
27	22	8.9	6.8	7.5	103	105	281	100	233	226	68	a30
28	22	8.9	6.8	7.5	103	105	262	93	231	229	73	a16
29	22	8.9	6.8	7.5	-	105	222	123	229	226	73	a17
30	22	8.9	6.8	7.5	-	105	220	150	229	222	70	a17
31	22	-	6.8	7.5	-	105	-	127	-	224	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	673	23	21	21.7	1,330
November	312.4	22	8.9	10.4	620
December	1,594.7	103	6.8	51.4	3,160
Calendar year 1945	16,246.8	150	6.8	44.5	32,210
January	226.2	7.5	6.8	7.3	449
February	2,267.0	103	7.5	81.0	4,500
March	1,794.8	105	6.8	57.9	3,560
April	5,145	284	105	171	10,200
May	3,955	198	93	128	7,840
June	4,266	233	42	142	8,460
July	7,067	236	222	228	14,020
August	4,863	233	68	157	9,650
September	1,174	75	16	39.1	2,330
Water year 1945-46	33,338.1	284	6.8	91.3	66,120

a No gage-height record; discharge interpolated, or computed on basis of unpublished record of inflow into East Canyon Reservoir and gate operations.
Note.- Discharge for Nov. 1 to Apr. 6 computed on basis of 2 discharge measurements, weekly or more frequent gage readings, and records of gate operation at East Canyon Dam.

Hardscrabble Creek near Porterville, Utah

Location.- Water-stage recorder, lat. 40°57'10", long. 111°43'00", in SW¼NW¼ sec. 34, T. 3 N., R. 2 E., two-thirds of a mile upstream from Tucker Hollow and 2¾ miles southwest of Porterville.

Drainage area.- 24.9 square miles.

Records available.- October 1941 to September 1946. Fragmentary records December 1937 to August 1940 on file in State engineer's office.

Extremes.- Maximum discharge during year, 257 second-feet Apr. 26 (gage height, 2.83 feet); minimum not determined (occurred during period of ice effect).
1941-46: Maximum discharge, 631 second-feet Aug. 20, 1945 (gage height, 3.60 feet), from rating curve extended above 180 second-feet; minimum recorded, 3.0 second-feet Feb. 11, 1944, but may have been less during periods of ice effect.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.7	10	7.2			12	41	174	92	24	10	7.7
2	9.7	9.4				12	37	158	90	23	9.4	7.4
3	9.4	9.1				12	34	150	92	20	9.4	7.2
4	9.4	8.8				11	32	163	95	19	9.1	7.2
5	9.1	8.2		b7		11	37	177	95	18	9.4	7.2
6	9.1	8.2	b6		a7	11	46	177	90	18	9.4	7.2
7	9.4	b8.1				12	53	165	86	17	9.4	7.4
8	9.1	b7.9				14	51	160	80	16	9.1	7.4
9	9.1	b8.0				12	50	152	76	15	8.8	7.2
10	9.7	8.2				14	49	142	70	15	8.8	7.2
11	10	8.2				19	51	119	68	15	8.8	7.2
12	11	7.4			a8	24	58	107	62	15	9.4	7.2
13	11	7.4				30	75	97	61	14	9.4	7.2
14	11	b7.2			*8.2	28	107	90	56	14	9.1	7.2
15	10	7.2			7.7	23	115	88	53	13	8.8	6.6
16	10	8.0	a6		7.7	21	142	90	49	13	8.2	7.2
17	9.7	7.7			7.4	21	174	95	47	13	8.2	8.2
18	9.4	7.2			7.7	25	202	103	45	12	8.2	8.0
19	9.1	6.9			8.0	38	216	101	44	12	8.0	8.0
20	9.1	5.6		a6	8.0	42	230	95	42	12	8.0	8.0
21	8.5	b5.4			8.0	37	234	95	39	12	8.0	7.4
22	8.5	b5.9			8.2	33	202	95	37	11	8.8	7.4
23	8.0	b6.8			8.5	31	180	88	35	11	8.8	7.7
24	*8.2	b8.4			11	34	187	78	37	13	8.2	7.4
25	8.2	b10			12	28	213	65	34	12	8.2	7.2
26	8.2	b12	b7		12	28	234	60	31	12	8.0	7.2
27	8.5	b11			13	35	238	60	29	11	8.0	7.2
28	8.2	*11			12	52	234	95	28	11	7.7	7.2
29	8.2	8.5			-	58	216	101	26	10	8.0	7.2
30	9.7	8.8			-	49	206	94	24	10	7.4	6.9
31	11	-			-	47	-	94	-	11	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	289.2	11	8.0	9.33	574
November	246.5	12	5.4	8.22	489
December	198.2	-	-	6.33	389
Calendar year 1945	10,425.9	177	-	28.6	20,680
January	193	-	-	6.23	383
February	233.4	-	-	8.34	463
March	824	58	11	26.6	1,630
April	3,944	238	32	131	7,820
May	3,528	177	60	114	7,000
June	1,713	95	24	57.1	3,400
July	442	24	10	14.3	877
August	267.2	10	7.2	8.62	530
September	220.7	8.2	6.6	7.36	438
Water year 1945-46	12,097.2	238	-	33.1	23,990

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations on nearby streams.
b Stage-discharge relation affected by ice.

South Fork Ogden River near Huntsville, Utah

Location.- Water-stage recorder, lat. 41°16', long. 111°40', in SE¼ 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 1946.

Average discharge.- 25 years, 104 second-feet.

Extremes.- Maximum discharge during year, 1,430 second-feet Apr. 18 (gage height, 5.06 feet); minimum not determined (occurred during period of ice effect).
1921-46: 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, which are fair. Small diversions above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	47	48	102		73	214	689	186	73	49	43
2	42	46	46	102		73	204	593	181	72	48	43
3	42	46	b44	94		75	190	574	181	71	47	42
4	42	46	b46	77		73	179	583	181	69	47	42
5	41	45	b49	68		76	204	583	179	68	47	42
6	41	49	48	61		78	244	562	177	65	47	41
7	41	49	48	61		75	272	507	175	64	45	41
8	41	47	47	59	b45	75	261	472	168	63	46	41
9	42	45	b46	55		77	264	462	164	62	45	42
10	42	47	b46	b50		85	238	415	157	62	45	42
11	42	47	b45	b48		114	231	368	149	61	45	41
12	42	47	b45	b45		138	261	338	144	60	45	41
13	42	47	b43			177	359	321	138	59	46	41
14	42	45				166	544	304	130	59	45	41
15	42	47			*48	144	673	296	126	59	45	41
16	43	49			47	136	783	280	121	58	45	41
17	43	49			48	132	940	274	115	57	44	43
18	42	48	b42		49	149	1,110	277	115	55	44	42
19	42	48			49	186	1,250	272	112	54	43	42
20	42	49			49	228	1,220	256	105	53	44	42
21	42	b46			49	197	1,160	246	102	53	45	42
22	43	b45		b43	51	170	1,020	238	98	53	45	42
23	42	b45			53	159	980	241	92	53	47	42
24	42	b45			63	159	1,020	231	97	53	45	42
25	*42	b46	b45		73	149	1,100	212	90	52	45	42
26	42	48			75	149	1,170	202	86	56	44	42
27	42	48			76	164	1,120	200	82	52	44	42
28	42	*48	45		77	219	990	212	81	51	43	42
29	42	48	128		-	241	925	204	78	52	43	42
30	44	48	115		-	231	850	197	77	53	42	42
31	48	-	108		-	228	-	188	-	50	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,309	48	41	42.2	2,600
November	1,410	49	45	47.0	2,800
December	1,603	128	-	51.7	3,180
Calendar year 1945	40,747	837	33	112	80,820
January	1,639	102	-	52.9	3,250
February	1,437	77	-	51.3	2,850
March	4,396	241	73	142	8,720
April	19,976	1,250	179	666	39,620
May	10,797	689	188	348	21,420
June	3,887	186	77	130	7,710
July	1,822	73	50	58.8	3,610
August	1,397	49	42	45.1	2,770
September	1,254	43	41	41.8	2,490
Water year 1945-46	50,927	1,250	-	139	101,000

b Stage-discharge relation affected by ice.

Pine View Reservoir near Ogden, Utah

Location.- Staff gage, lat. 41°15'20", long. 111°50'25", in NW¼SW¼ 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, datum of 1929 (levels by Bureau of Reclamation).

Drainage area.- 310 square miles.

Records available.- November 1936 to September 1946.

Extremes.- Maximum contents during year, 44,100 acre-feet May 20-21 (elevation, 4,872.29 feet); minimum, 322 acre-feet Nov. 15 (elevation, 4,822.68 feet).
1936-46: 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); during September 1939 sills of radial spillway gates were raised 1 foot, thus changing top of spillway gates from elevation 4,871 to 4,872 feet. Dead storage, 45 acre-feet (below elevation 4,818 feet), which must be deducted from figures of total contents shown in tables to obtain usable contents. Water is used for irrigation on Ogden River project. Gage 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,230	692	528	3,130	2,400	1,200	13,920	42,480	43,580	36,560	25,230	14,600
2	14,660	679	510	3,540	2,280	1,560	14,390	42,620	43,580	36,250	24,910	14,360
3	14,180	641	476	4,100	2,190	1,920	14,800	43,230	43,580	35,800	24,530	14,070
4	13,710	589	458	4,380	2,100	2,310	14,950	43,810	43,580	35,490	24,050	13,760
5	13,160	535	421	4,920	2,010	2,410	15,280	43,810	43,580	35,100	23,680	13,410
6	12,730	553	513	4,920	1,900	2,470	15,790	43,810	43,580	34,740	23,330	13,080
7	12,220	544	615	4,940	1,810	2,600	16,560	43,810	43,580	34,370	22,910	12,750
8	11,690	516	715	5,010	1,730	2,670	17,510	43,810	43,440	33,990	22,560	12,410
9	11,180	459	709	4,990	1,580	2,740	18,120	43,810	43,300	33,620	22,110	12,170
10	10,650	350	685	4,900	1,480	2,880	18,560	43,810	43,090	33,260	21,620	11,960
11	10,140	358	691	4,900	1,380	3,590	18,730	43,810	42,880	32,890	21,240	11,680
12	9,640	350	691	4,870	1,260	4,350	18,810	43,810	42,590	32,540	20,900	11,410
13	9,100	340	679	4,750	1,150	5,010	19,080	43,810	42,310	32,190	20,570	11,170
14	8,570	336	654	4,670	954	6,110	19,650	43,810	42,030	31,830	20,200	10,940
15	8,190	322	624	4,540	803	6,930	20,910	43,810	41,600	31,480	19,870	10,710
16	7,560	414	606	4,410	867	7,680	23,480	43,810	41,330	31,120	19,550	10,460
17	7,180	465	566	4,320	874	7,980	24,870	43,810	41,060	30,650	19,240	10,270
18	6,800	506	566	4,220	844	8,150	26,640	43,520	40,790	30,240	18,840	10,050
19	6,110	478	547	4,070	811	8,610	28,170	43,810	40,520	29,830	18,550	9,840
20	5,570	438	523	3,910	780	9,140	29,720	44,100	40,230	29,440	18,200	9,780
21	5,060	371	523	3,750	740	10,000	31,140	44,100	39,900	29,050	17,900	9,720
22	4,550	355	519	3,640	717	10,450	31,840	43,950	39,570	28,650	17,550	9,570
23	4,010	371	630	3,520	698	10,700	32,800	43,950	39,230	28,250	17,300	9,450
24	3,570	383	734	3,450	686	10,840	34,300	43,950	38,900	27,850	17,130	9,300
25	3,120	416	813	3,300	674	11,110	36,340	43,950	38,640	27,460	16,950	9,160
26	2,710	449	919	3,230	805	11,240	38,740	43,580	38,310	27,240	16,610	9,040
27	1,380	495	975	3,130	901	11,440	40,520	43,580	37,980	26,900	16,260	8,860
28	1,850	504	1,040	2,940	977	11,780	41,080	43,580	37,590	26,480	15,930	8,690
29	1,380	532	1,670	2,800	-	12,340	41,080	43,580	37,270	26,140	15,590	8,510
30	968	527	1,800	2,670	-	12,930	41,910	43,580	36,950	25,820	15,250	8,310
31	616	-	2,690	2,530	-	13,300	-	43,580	-	25,550	14,920	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	4,851.04	15,230	-14,538
Nov. 1	4,825.85	692	-164
Dec. 1	4,824.69	528	+2,602
Calendar year 1945	-	-	+2,379
Jan. 1	4,833.60	3,130	-730
Feb. 1	4,831.85	2,400	-1,200
Mar. 1	4,828.21	1,200	+12,720
Apr. 1	4,849.70	13,920	+28,560
May 1	4,871.37	42,480	+1,100
June 1	4,872.00	43,580	-7,020
July 1	4,867.78	36,560	-11,330
Aug. 1	4,859.86	25,230	-10,630
Sept.1	4,850.40	14,600	-6,450
Oct. 1	4,842.51	8,150	-
Water year 1945-46	-	-	-7,080

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 6½ miles northeast of Ogden.

Drainage area.- 321 square miles.

Records available.- October 1937 to September 1946, 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.

Extremes (regulated).- Maximum discharge during year, 1,540 second-feet Apr. 29 (gage height, 5.70 feet); minimum daily, probably less than 1 second-foot at times during winter months when reservoir gates were closed.
1937-46: Maximum discharge, 2,290 second-feet June 7, 1945 (gage height, 6.73 feet); minimum, 0.3 second-foot at times when reservoir gates were closed.

Remarks.- Records good except those for period of no gage-height record, which are fair. 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	21					357	918	156	33	25	22
2	110	16					363	668	154	36	25	22
3	108	12					363	608	151	30	25	22
4	108	7.6					322	801	116	30	24	28
5	106	5.2		2		5	307	792	57	29	24	28
6	111	3.0					319	688	24	34	25	28
7	122	1.9					376	878	19	36	25	27
8	120	1.2					446	783	14	36	28	25
9	118						512	568	14	36	28	21
10	120				1	10	505	572	18	31	27	20
11	127						505	520	41	29	23	20
12	125						516	298	27	29	23	20
13	125					15	532	280	25	29	23	20
14	123		1				536	328	25	29	20	19
15	122					18	596	325	28	28	20	19
16	120					117	778	322	28	23	23	19
17	118					222	927	246	28	29	25	18
18	116					190	1,050	77	25	23	24	14
19	115	1				170	1,420	32	29	23	23	14
20	113					170	1,490	203	26	23	23	15
21	110			1	2	212	1,520	210	27	23	22	16
22	108					246	1,280	203	30	23	25	16
23	106					249	940	196	30	30	27	15
24	103					254	664	205	29	30	26	14
25	105					252	632	179	30	30	26	15
26	93				5	218	752	122	31	30	23	14
27	72					210	1,350	116	29	25	20	14
28	57					222	1,520	106	29	22	19	14
29	43		2		-	249	1,300	203	32	21	19	14
30	34				-	298	1,120	249	32	20	19	14
31	27	-			-	341	-	198	-	22	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,195	127	27	103	6,340
November	89.9	21	-	3.00	178
December	35	-	-	1.13	69
Calendar year 1945	44,546.0	1,770	-	122	88,350
January	41	-	-	1.32	81
February	52	-	-	1.9	103
March	3,753	341	-	121	7,440
April	23,298	1,520	307	777	46,210
May	11,894	918	32	384	23,590
June	1,304	156	14	43.5	2,590
July	903	36	20	29.1	1,790
August	730	28	19	23.5	1,450
September	567	28	14	18.9	1,120
Water year 1945-46	45,861.9	1,520	-	126	90,960

Note.- No gage-height record Nov. 9 to Mar. 15; discharge computed on basis of 4 discharge measurements, weather records and records for nearby stations.

Jordan River at Narrows, near Lehi, Utah

Location.- Water-stage recorders, lat. 40°26'40", long. 111°55'20", in SE¼NW¼ 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, including 280 square miles in Cedar Valley.

Records available.- October 1934 to September 1946. May to December 1904, July 1913 to September 1934 at outlet of Utah Lake, 7½ miles upstream.

Average discharge.- 33 years (1913-46), 361 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 876 second-feet July 2, 3; minimum daily, 3 second-feet Jan. 19-23.
1913-46: 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 except those below 10 second-feet, which are good. 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	393	23	20	21	9.5	22	19	479	324	867	714	760
2	391	23	21	21	9.5	21	23	692	449	876	740	761
3	379	24	21	21	9.5	13	24	714	532	876	790	745
4	435	24	21	21	15	21	21	716	576	875	675	734
5	440	24	21	21	7.5	25	20	732	649	873	792	731
6	438	24	21	21	12	22	19	754	646	864	793	732
7	438	23	21	21	9.0	20	21	759	692	869	801	730
8	438	23	21	21	8.0	20	30	747	725	872	802	741
9	441	23	21	22	7.5	18	28	728	729	848	797	746
10	439	23	21	22	10	18	29	648	741	862	803	733
11	433	23	21	22	9.0	14	21	564	709	868	840	714
12	434	23	21	21	10	18	15	563	721	869	796	711
13	423	24	22	21	12	17	10	592	726	862	744	715
14	279	24	22	15	14	7.0	11	665	732	853	759	713
15	18	24	22	11	16	23	13	536	757	869	772	715
16	18	23	22	11	13	16	14	661	761	869	770	672
17	17	23	22	7	11	16	36	686	753	864	752	680
18	17	23	21	5	15	15	64	682	752	847	761	701
19	17	23	21	3	16	16	73	690	763	849	784	666
20	17	23	21	3	16	19	75	703	808	858	786	649
21	17	19	21	3	19	28	76	708	804	859	789	645
22	18	19	22	3	20	24	26	704	800	862	779	601
23	18	19	22	3	26	20	8.0	691	815	853	774	611
24	18	19	22	34	28	15	6.0	697	801	823	787	606
25	18	19	22	61	28	22	123	709	797	711	793	576
26	20	19	22	24	28	23	220	705	814	685	762	539
27	20	19	22	15	23	20	264	699	831	689	753	533
28	20	19	22	13	20	22	271	594	840	727	739	528
29	20	19	22	10	-	23	279	326	833	745	706	540
30	24	19	22	10	-	23	177	235	842	737	703	546
31	24	-	21	11	-	19	-	276	-	707	728	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,122	441	17	197	12,140
November	657	24	19	21.9	1,300
December	664	22	20	21.4	1,320
Calendar year 1945	101,137.6	847	0	277	200,600
January	518	61	3	16.7	1,030
February	421.5	28	7.5	15.1	836
March	600.0	28	7.0	19.4	1,190
April	2,016.0	279	6.0	67.2	4,000
May	19,655	759	235	634	38,990
June	21,722	842	324	724	43,080
July	25,688	876	685	829	50,950
August	23,784	840	703	767	47,170
September	20,074	761	528	669	39,820
Water year 1945-46	121,921.5	876	3	334	241,800

Jordan River at Salt Lake City, Utah

Location.- Water-stage recorder, lat. 40°44', long. 111°55', in SW¼SW¼ sec. 14, T. 1 S., R. 1 W., a quarter of a mile downstream from highway bridge on Twenty-first South Street, Salt Lake City, and 2 miles downstream from Mill Creek. Datum of gage is 4,220.73 feet above mean sea level (datum of 1929).

Records available.- December 1942 to September 1946.

Extremes (regulated).- Maximum discharge during year, 265 second-feet May 29 (gage height, 3.59 feet); minimum daily, 47 second-feet Apr. 25.
Maximum combined dishcarge during year (Jordan River and Surplus Canal), 678 second-feet May 29; minimum daily, 145 second-feet May 18.
1942-46: Maximum discharge, 384 second-feet June 3, 1944 (gage height, 5.55 feet); minimum daily, 13 second-feet Apr. 9, 13, 14, 1943, July 19, 1944.
Maximum combined discharge (Jordan River and Surplus Canal), 1,190 second feet June 3, 1944; minimum daily, that of May 18, 1946.

Remarks.- Records fair. Flow regulated by gates and pumps at outlet of Utah Lake. Many diversions above station for irrigation and industrial and municipal water supplies. Surplus Canal diverts water 1,000 feet above station (see p. 124). For records of combined flow see following page.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	197	147	150	149	134	178	150	76	150	130	148	168
2	213	150	147	148	140	179	159	56	133	111	134	178
3	212	154	144	147	140	179	154	87	124	102	112	174
4	206	140	144	147	141	180	159	85	138	116	138	178
5	209	137	144	149	138	179	158	62	141	125	146	156
6	202	136	144	154	138	171	157	62	131	140	152	155
7	191	141	138	149	141	171	165	52	126	143	158	152
8	192	146	140	148	140	163	160	136	102	141	116	154
9	192	144	142	143	138	155	166	154	100	137	111	163
10	194	146	138	142	138	153	128	169	112	143	102	163
11	204	159	140	142	137	150	104	167	107	132	106	160
12	209	159	143	137	136	149	101	113	110	146	120	152
13	234	160	141	138	136	147	100	100	125	156	124	152
14	227	158	138	136	142	153	108	82	124	154	131	152
15	213	156	138	133	146	155	121	116	124	150	150	154
16	184	166	138	131	154	156	138	121	119	153	153	153
17	168	162	140	128	158	153	154	105	131	144	142	164
18	164	158	141	127	164	150	171	97	133	130	125	175
19	147	156	140	125	167	145	163	106	136	127	120	188
20	133	155	138	125	171	158	152	115	121	127	116	183
21	138	149	141	121	177	159	159	111	121	126	111	185
22	141	147	145	124	180	149	125	122	124	133	118	177
23	133	147	171	126	175	146	96	143	115	136	122	182
24	140	147	172	130	145	147	78	163	124	165	137	186
25	138	147	156	142	156	152	47	152	121	188	155	178
26	136	144	157	157	163	154	50	137	124	200	171	164
27	133	142	156	156	176	154	61	148	121	188	174	166
28	131	140	156	148	178	153	54	198	118	177	192	163
29	127	138	158	143	-	148	69	248	120	166	185	150
30	128	144	159	142	-	152	88	212	127	160	183	155
31	145	-	152	138	-	155	-	171	-	149	172	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,379	234	127	174	10,670
November	4,475	166	136	149	8,880
December	4,551	172	138	147	9,030
Calendar year 1945	51,735	238	46	142	102,600
January	4,325	157	121	140	8,580
February	4,249	180	134	152	8,430
March	4,893	180	145	158	9,710
April	3,695	171	47	123	7,330
May	3,866	248	52	125	7,670
June	3,702	150	100	123	7,340
July	4,495	200	102	145	8,920
August	4,324	192	102	139	8,580
September	4,980	188	150	166	9,880
Water year 1945-46	52,934	248	47	145	105,000

Combined discharge, in second-feet, of Jordan River and Surplus Canal at Salt Lake City, Utah water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	339	245	244	232	202	245	210	315	448	232	218	238
2	353	250	238	228	216	244	234	258	411	211	188	256
3	351	253	230	225	213	245	224	308	379	207	174	237
4	334	224	227	224	216	247	235	281	350	231	180	259
5	342	229	225	231	212	247	229	210	337	249	206	244
6	347	229	223	242	211	231	228	230	313	252	217	242
7	338	237	214	232	214	231	243	191	303	255	267	237
8	336	247	217	229	215	221	235	284	244	232	220	242
9	319	240	220	220	212	212	271	312	232	223	206	267
10	322	242	212	217	211	207	267	339	255	242	185	267
11	348	271	213	217	210	202	258	355	239	211	191	260
12	359	266	219	207	210	199	248	249	239	227	209	247
13	394	270	214	208	208	197	244	225	222	238	216	249
14	372	266	206	206	214	208	253	183	210	219	227	249
15	339	255	206	203	219	211	255	200	200	210	249	248
16	288	279	204	196	229	212	277	210	182	210	256	250
17	269	269	206	193	234	207	307	178	210	198	230	279
18	261	254	205	191	240	204	361	145	213	180	200	303
19	227	239	202	186	243	195	433	154	218	170	194	327
20	226	236	198	184	247	218	451	195	194	175	190	314
21	236	227	204	175	254	226	475	212	192	188	182	316
22	243	225	215	181	256	209	467	231	200	203	197	299
23	225	225	272	186	247	203	435	275	182	207	205	295
24	232	226	274	190	202	205	380	303	203	274	239	298
25	228	229	237	218	212	215	307	282	200	350	276	281
26	226	225	240	256	219	220	313	264	209	376	309	250
27	217	223	237	254	241	227	337	334	204	340	308	253
28	209	219	239	234	246	221	322	454	196	304	322	257
29	203	215	244	221	-	213	353	648	209	275	312	250
30	202	228	249	220	-	219	372	602	226	263	279	262
31	226	-	236	211	-	223	-	507	-	229	257	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,911	394	202	287	17,670
November	7,243	279	215	241	14,370
December	6,970	274	198	225	13,820
Calendar year 1945	91,531	573	152	251	181,600
January	6,617	256	175	213	13,120
February	6,253	256	202	223	12,400
March	6,764	247	195	218	13,420
April	9,224	475	210	307	18,300
May	8,934	648	145	288	17,720
June	7,420	448	182	247	14,720
July	7,381	376	170	238	14,640
August	7,109	322	174	229	14,100
September	7,976	327	237	266	15,820
Water year 1945-46	90,802	648	145	249	180,100

Spanish Fork at Thistle, Utah

Location.- Water-stage recorder, lat. 40°00', long. 111°30', in SW¼ sec. 28, T. 9 S., R. 4 E., at Thistle, 600 feet downstream from confluence of Soldier Fork and Thistle Creek and 2½ miles upstream from Diamond Fork.

Drainage area.- 490 square miles.

Records available.- January 1908 to September 1925 and October 1936 to September 1946 in reports of Geological Survey. January 1933 to September 1946 in reports of Spanish Fork water commissioner.

Average discharge.- 30 years (1908-25, 1933-46), 96.1 second-feet.

Extremes.- Maximum discharge during year, 334 second-feet Apr. 27 (gage height, 3.50 feet); minimum daily, 28 second-feet Sept. 1, 3.
1908-25, 1933-46: Maximum discharge observed, 1,250 second-feet May 25, 1922; minimum observed, 10 second-feet Sept. 17, 22, 25, Oct. 25, 1934.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	53	59	53	b49	64	102	274	95	47	35	a28
2	44	52	45	50	b50	70	106	252	94	47	33	a31
3	43	52	42	54	b51	73	92	235	87	45	34	a28
4	41	52	49	55	52	68	87	233	87	45	33	a32
5	40	51	54	54	*b49	68	97	230	87	43	33	38
6	40	*51	55	53	b46	60	111	226	87	43	32	a39
7	42	53	51	47	b49	55	170	217	87	46	30	a39
8	41	52	51	51	b46	55	168	206	85	43	31	a38
9	40	52	46	b42	b42	60	161	199	82	35	34	a34
10	41	51	44	b37	b49	68	141	206	72	40	34	a34
11	42	51	46	b47	50	87	133	191	70	39	38	a34
12	46	53	47	b40	47	90	145	176	67	43	49	a36
13	45	53	b41	b37	b48	116	168	168	66	45	42	a34
14	44	47	b41	b36	b50	112	197	159	62	43	44	a33
15	43	52	b39	b38	b53	84	204	153	58	40	42	a33
16	46	53	b40	b40	58	74	235	149	54	39	42	a33
17	47	52	41	b46	54	66	247	143	55	37	42	a33
18	48	51	43	b46	62	*76	268	133	59	36	41	a34
19	48	47	b40	b50	67	94	291	129	58	34	37	a35
20	51	50	b42	b51	78	107	298	126	59	33	35	a40
21	50	42	b43	b50	73	78	308	118	59	34	38	a37
22	51	41	45	b49	97	73	298	116	54	34	43	a34
23	51	46	48	b52	95	72	281	114	58	49	51	a36
24	49	48	50	b52	112	76	294	111	54	49	50	38
25	49	52	51	b52	98	70	306	109	55	52	48	38
26	48	51	52	b46	72	64	321	107	53	45	43	34
27	49	53	52	b40	67	74	329	106	49	40	40	35
28	48	55	*53	b48	68	87	314	111	49	37	40	35
29	47	57	63	53	-	87	306	111	48	33	a39	35
30	48	59	72	52	-	89	304	100	47	36	a40	34
31	50	-	53	b46	-	98	-	97	-	35	a33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,418	51	40	45.7	2,810
November	1,532	59	41	51.1	3,040
December	1,498	72	39	48.3	2,970
Calendar year 1945	31,206	434	37	85.5	61,900
January	1,467	55	36	47.3	2,910
February	1,732	112	42	61.9	3,440
March	2,415	116	55	77.9	4,790
April	6,482	329	87	216	12,860
May	5,005	274	97	161	9,930
June	1,997	95	47	66.6	3,960
July	1,267	52	33	40.9	2,510
August	1,206	51	30	38.9	2,390
September	1,042	40	28	34.7	2,070
Water year 1945-46	27,061	329	28	74.1	53,680

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Diamond Fork at Thistle and Spanish Fork at Castilla.
b Stage-discharge relation affected by ice.

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Spanish Fork at Castilla, Utah

Location.- Water-stage recorder, lat. 40°03'00", long. 111°32'45", in SW¼NE¼ 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, 1¼ 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 1946 in reports of Geological Survey. January 1933 to September 1946 in reports of Spanish Fork water commissioner.

Average discharge.- 19 years (1919-25, 1933-46), 214 second-feet.

Extremes.- Maximum discharge during year, 645 second-feet Apr. 21 (gage height, 4.96 feet); minimum, 40 second-feet Jan. 14.
1919-25, 1933-46: Maximum daily discharge, 1,520 second-feet May 22, 1920; minimum, 24 second-feet Jan. 19, 1943.

Remarks.- Records good except those for no gage-height record, which are fair. 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 for irrigation in Jordan River Basin (see p. 109).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	175	85	86	85	75	99	173	498	169	543	259	148
2	185	83	70	80	75	107	177	458	166	502	256	166
3	206	80	65	86	78	106	146	430	156	423	268	175
4	217	80	75	87	79	104	140	448	152	379	268	230
5	228	80	83	89	74	101	154	520	182	a425	271	271
6	196	78	82	86	72	96	179	543	274	a450	306	297
7	171	83	78	76	79	87	296	547	362	430	337	294
8	167	82	78	85	75	89	260	532	416	420	330	262
9	169	74	69	67	66	95	243	551	426	444	a340	235
10	173	82	61	58	76	106	211	520	430	451	a325	237
11	152	83	70	72	78	124	202	399	498	451	a300	222
12	98	83	71	61	72	128	222	330	551	458	a295	217
13	83	83	f62	56	74	159	266	334	605	433	a280	189
14	79	75	62	54	a76	159	304	309	585	359	a265	184
15	78	85	f59	58	a80	126	324	294	535	343	a205	171
16	78	87	f60	62	85	114	399	300	517	321	166	162
17	78	85	62	72	83	103	455	315	539	337	154	164
18	79	83	65	72	87	112	498	343	551	361	166	171
19	79	78	f59	78	92	139	558	399	532	372	180	166
20	82	82	f61	79	103	173	570	434	547	353	210	156
21	82	64	f62	78	99	131	601	491	617	327	294	150
22	85	62	65	76	130	121	562	506	593	324	315	154
23	83	69	70	80	133	121	524	547	582	291	271	156
24	80	76	74	80	146	137	532	513	570	265	220	156
25	80	79	74	80	133	119	570	440	566	265	122	160
26	79	76	75	72	104	114	593	392	562	248	94	162
27	79	80	75	61	101	130	597	379	570	237	117	169
28	79	80	82	74	106	154	597	349	601	207	160	200
29	78	85	99	83	-	155	551	224	613	217	173	198
30	78	87	109	79	-	157	535	182	578	251	162	200
31	80	-	89	70	-	171	-	173	-	240	146	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,656	228	78	118	7,250
November	2,389	87	62	79.6	4,740
December	2,252	109	59	72.6	4,470
Calendar year 1945	70,712	656	58	194	140,200
January	2,296	89	54	74.1	4,550
February	2,531	146	66	90.4	5,020
March	3,837	173	87	124	7,610
April	111,439	601	140	381	22,690
May	12,700	551	173	410	25,190
June	14,045	617	152	468	27,860
July	11,131	543	207	359	22,080
August	7,255	340	94	234	14,390
September	5,822	297	148	194	11,550
Water year 1945-46	79,353	617	54	217	157,400

a No gage-height record; discharge computed on basis of weather records and records for nearby stations.
f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Spanish Fork near Lake Shore, Utah

Location.- Water-stage recorder and low-water wooden control, lat. 40°10', long. 111°44', in SE¼SE¼ sec. 32, T. 7 S., R. 2 E., 400 feet downstream from bridge, 1 mile upstream from mouth, and 2½ miles north of Lake Shore.

Drainage area.- 700 square miles.

Records available.- January 1938 to September 1946. December 1903 to July 1907 and March 1909 to September 1925 at site 3 miles upstream.

Average discharge.- 25 years (1904-6, 1909-19, 1920-25, 1938-46), 92.3 second-feet.

Extremes.- Maximum discharge during year, 548 second-feet Apr. 19; minimum daily, 0.2 second-foot on several days during May, June, and July.
1903-7, 1909-25, 1938-46: Maximum discharge observed, 1,100 second-feet May 7, 1922; practically no flow at times during irrigation season of most years.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	72	94	90	84	110	212	10	0.4	0.4	0.5	1.9
2	.4	72	85	91	84	120	215	1	.4	.4	.6	1.9
3	2.3	74	78	92	86	115	188		.5	.4	.6	5.4
4	6.0	67	73	96	88	115	169		.4	.3	.6	.8
5	7.8	70	83	100	86	115	180	.6	.6	.5	.6	1.0
6	4.0	65	87	98	84	110	200		.5	.6	.7	2.3
7	3.0	70	84	88	90	105	304	.6	.6	.7	.8	3.8
8	3.0	75	82	90	86	110	348	.9	1.2	.7	.7	3.5
9	5.4	67	76	85	80	120	303	.5	.7	.7	.8	3.5
10	7.4	70	66	75	84	130	287	.4	.6	.6	.6	4.0
11	9.2	73	74	80	*86	150	321	.3	.6	.6	.8	5.2
12	21	74	73	b74	82	155	306	.2	1.2	.5	.6	4.3
13	23	77	68	b67	84	174	269	.4	.7	.4	.7	3.0
14	27	72	b67	b64	88	195	337	.5	.9	.5	.8	2.3
15	32	78	b65	68	94	167	345	.5	.4	.3	.8	2.8
16	42	87	b66	74	100	146	390	.3	.2	.3	.8	1.4
17	44	85	b68	78	97	129	450	.3	.3	.2	.7	1.4
18	50	83	b72	80	106	129	488	.2	.4	.3	.6	3.2
19	47	81	b66	86	114	152	522	.3	.5	.4	.6	4.9
20	49	*78	b69	87	120	192	529	.9	.4	.3	.8	5.4
21	55	74	b70	87	131	179	529	1.0	.4	.3	1.0	6.2
22	55	62	b74	85	130	147	529	.5	.7	.4	1.7	7.2
23	59	70	80	88	152	141	507	.4	.6	.5	2.3	7.8
24	59	78	80	90	160	160	471	.3	.6	.5	4.0	5.4
25	57	78	85	88	145	152	447	.3	.2	.3	5.2	4.0
26	59	82	88	84	130	139	425	.3	.2	.3	3.0	5.2
27	61	81	86	76	110	142	410	.3	.2	.4	1.4	5.4
28	62	84	93	82	115	173	381	1.2	.2	.4	1.4	6.0
29	59	88	*98	92	-	180	285	3.2	.5	.5	2.3	6.7
30	61	93	122	88	-	177	50	1.2	.3	.5	.5	7.8
31	67	-	103	82	-	199	-	.7	-	.5	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,038.3	67	0.4	33.5	2,060
November	2,280	93	62	76.0	4,520
December	2,475	122	65	79.8	4,910
Calendar year 1945	28,980.5	523	.3	79.4	57,480
January	2,605	100	64	84.0	5,170
February	2,896	160	80	103	5,740
March	4,528	199	105	146	8,980
April	10,397	529	50	34.7	20,620
May	29.1	10	.2	.94	58
June	15.4	1.2	.2	.51	31
July	13.7	.7	.2	.44	27
August	37.7	5.2	.5	1.22	75
September	123.7	7.8	.8	4.12	245
Water year 1945-46	26,418.9	529	.2	72.4	52,440

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Jan. 15 to Feb. 16, Feb. 24 to Mar. 12, Apr. 16, Apr. 30 to May 6; discharge computed on basis of weather records and records for station at Castilla.

Diamond Fork near Thistle, Utah

Location.- Water-stage recorder, lat. 40°02'15", long. 111°29'20", in NW¼NW¼ 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 1946. December 1907 to September 1917 at site 1 1/3 miles downstream.

Extremes.- Maximum discharge during year, 565 second-feet (regulated) June 29, 30 (gage height, 3.64 feet); minimum, 9.1 second-feet Nov. 19.
1907-17, 1940-46: Maximum discharge observed, 735 second-feet May 9, 1909; minimum, 1.6 second-feet Nov. 26, 1944.

Remarks.- Records good except those for periods of ice effect, indefinite stage-discharge relation, or no gage-height record, which are fair. 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 in Jordan River Basin.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	19	14	a15		18	60	180	a51	484	208	139
2	131	17	b13	a14		20	63	165	a50	447	208	130
3	156	18	b12	15		20	47	156	a48	381	220	143
4	169	17	b14	18		20	49	208	a47	322	218	195
5	180	17	15	18		20	57	292	e90	356	228	233
6	146	16	14	18		18	66	319	e185	375	265	252
7	123	18	b13	a17		19	35	311	e260	358	284	244
8	122	17	b13	a15		21	109	300	e319	347	271	218
9	127	18				22	95	300	e328	381	279	195
10	127	19			a16	23	84	273	e343	378	271	198
11	104	18				25	84	168	e416	378	236	183
12	a55	18				26	100	121	e462	375	231	178
13	a30	18		a13		31	122	139	e516	344	225	152
14	a25	18				32	142	123	e494	279	212	148
15	a17	*17				26	146	119	e452	268	152	136
16	16	18	b12			25	174	125	e449	a257	115	128
17	16	17				23	200	148	e463	a268	104	130
18	15	16				28	229	176	e472	a308	121	134
19	16	14				36	258	244	e454	a313	132	125
20	16	15			*15	59	268	279	e476	a301	176	113
21	17	b13			15	38	279	358	e539	a268	241	110
22	16	b11			16	32	256	389	e518	a265	252	117
23	16	b12	b13		17	32	246	364	e508	a217	198	117
24	16	b13	b14	a16	19	40	246	303	e495	a191	152	110
25	16	b14	a14		20	31	244	241	496	a188	f45	117
26	16	b13	a15		17	30	239	200	514	a178	f30	121
27	16	b14	a15		19	41	239	188	523	190	78	128
28	16	b14	*16		21	54	220	150	541	164	121	159
29	17	14	20		-	54	204	a67	556	a174	132	154
30	17	14	21		-	54	198	a57	517	202	119	159
31	17	-	a19		-	60	-	a52	-	190	110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,891	180	15	61.0	3,750
November	477	19	11	15.9	946
December	423	21	-	13.6	839
Calendar year 1945	34,993.6	523	8	95.9	69,410
January	471	18	-	15.2	934
February	463	21	15	16.5	918
March	978	60	18	31.5	1,940
April	4,759	279	35	159	9,440
May	6,515	389	52	210	12,920
June	11,582	556	47	396	22,970
July	9,147	484	164	295	18,140
August	5,634	284	30	182	11,170
September	4,664	252	110	155	9,250
Water year 1945-46	47,004	556	11	129	93,220

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Spanish Fork at Thistle and Castilla.
b Stage-discharge relation affected by ice.
e Stage-discharge relation indefinite; discharge computed on basis of records for Spanish Fork at Thistle and at Castilla, and Strawberry tunnel at West Portal, near Thistle.
f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Strawberry tunnel at West Portal, near Thistle, Utah

Location.- Water-stage recorder and rectangular weir, lat. 40°09'40", long. 111°14'40", in sec. 34, T. 7 S., R. 6 E., 40 feet downstream from west portal of tunnel and 18 miles northeast of Thistle.

Records available.- October 1945 to September 1946. October 1922 to September 1925, May 1932 to September 1945 in Spanish Fork water commissioner's reports and files of Salt Lake City district office, Geological Survey.

Extremes.- Maximum daily discharge during year, 520 second-feet June 29; minimum, 4.5 second-feet (seepage) Oct. 12 to May 2.
1922-25, 1932-46: Maximum daily discharge, 595 second-feet July 9, 1933; minimum daily observed, 4 second-feet many times when no water is being diverted from Strawberry Reservoir.

Remarks.- Records furnished by Spanish Fork Water Users' Association. They show water diverted from Strawberry Reservoir plus tunnel seepage for use on lands of Strawberry project.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110							4.5	5	44	207	134
2	129							4.5	5	41	198	113
3	153							10	5	33	217	142
4	163							87	9.6	28	206	204
5	174							167	70	34	227	234
6	124							190	186	35	269	255
7	105							174	248	33	285	239
8	106							177	293	33	269	203
9	114							204	296	37	281	178
10	113							120	312	36	261	189
11	50							46	391	36	218	167
12								33	419	36	216	161
13								48	469	32	217	130
14								14	436	26	193	133
15		4.5	4.5	4.5	4.5	4.5	4.5	40	403	26	126	119
16								48	419	24	93	112
17								75	419	26	98	114
18								113	434	294	115	119
19								180	414	294	127	110
20								220	451	284	175	95
21	4.5							298	501	25	242	98
22								311	475	26	234	102
23								353	475	19	169	106
24								297	475	15	94	98
25								235	475	17	10	105
26								189	479	17	17	110
27								184	490	17	69	120
28								100	512	13	116	155
29					-			5	520	171	116	141
30					-			5	474	193	98	147
31		-			-		-	5	-	174	96	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,431.0	174	-	46.2	2,840
November	135.0	-	-	4.5	268
December	139.5	-	-	4.5	277
Calendar year 1945	24,876.9	480	-	68.2	49,340
January	139.5	-	-	4.5	277
February	126.0	-	-	4.5	250
March	139.5	-	-	4.5	277
April	135.0	-	-	4.5	268
May	3,937.0	353	4.5	127	7,810
June	10,560.6	520	5	352	20,950
July	8,619	449	138	278	17,100
August	5,259	285	10	170	10,430
September	4,333	255	95	144	8,590
Water year 1945-46	34,954.1	520	-	95.8	69,340

Hobble Creek near Springville, Utah

Location.- Water-stage recorder, lat. 40°09'30", long. 111°31'30", in NE¼ sec. 6, T. 8 S., R. 4 E., 1,000 feet downstream from Springville hydroelectric plant, 1¼ miles downstream from Right Fork, and 4 miles southeast of Springville. June 1909 to December 1916, staff gage at site about 800 feet upstream at different datum. March 1904 to May 1909, staff gage at site about 200 feet downstream at different datum.

Drainage area.- 105 square miles.

Records available.- March 1904 to December 1916 (1906-7 gage heights only), April 1945 to September 1946.

Average discharge.- 11 years (1905, 1908-16, 1945-46), 59.7 second-feet.

Extremes.- 1945: Maximum discharge during period April to September, 393 second-feet May 6 (gage height, 4.09 feet); minimum daily, 18 second-feet (regulated) Aug. 22, 30.
1945-46: Maximum discharge during year, 385 second-feet Apr. 21 (gage height, 4.08 feet); minimum, 1.4 second-feet (regulated) Feb. 12.
1904-9, 1909-16, 1945-46: Maximum discharge observed, 824 second-feet Apr. 29, 1916 (gage height, 6.40 feet, site and datum then in use); minimum, that of Feb. 12, 1946.

Remarks.- Records good except those for period of no gage-height record, which are fair. Several diversions above station for irrigation. Flow regulated by hydroelectric plant at times during low stages.

Discharge, in second-feet, 1945-46

1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	196	61	41	22	21
2							-	250	60	39	25	21
3							-	290	62	33	25	22
4							-	323	70	32	25	25
5							-	331	77	32	23	23
6							-	343	80	33	22	20
7							-	284	77	33	20	23
8							-	282	75	37	22	23
9							-	258	71	35	25	23
10							-	250	81	37	28	23
11							-	264	80	40	28	23
12							-	246	77	37	28	20
13							-	227	77	33	25	19
14							-	206	77	34	23	19
15							-	165	75	32	23	19
16							-	140	68	30	22	19
17							28	126	64	23	22	20
18							32	122	58	22	21	21
19							44	121	57	22	22	22
20							74	112	53	23	22	20
21							109	95	58	23	20	19
22							138	80	52	20	18	20
23							134	70	50	20	19	22
24							131	60	51	22	20	20
25							94	f58	52	23	23	20
26							82	f56	50	25	23	20
27							74	a56	49	24	25	20
28							80	a57	42	22	24	21
29							102	59	41	23	22	23
30							151	60	37	24	18	25
31							-	70	-	21	20	-

a No gage-height record; discharge computed on basis of 1 discharge measurement and records for stations on nearby streams.
f Computed on basis of partly estimated gage heights.

Discharge, in second-feet, of Hobble Creek near Springville, Utah, 1945-46--Continued

1945-46

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Juue	July	Aug.	Sept.
1	25	25	25	25	23	23	76	134	44	33	21	19
2	24	25	23	25	22	22	70	109	44	32	23	20
3	24	24	23	25	23	23	62	97	41	29	21	20
4	24	24	24	25	23	23	58	100	39	28	21	21
5	23	24	24	25	22	23	67	95	42	28	20	21
6	23	24	24	25	21	23	90	94	44	25	21	19
7	23	25	24	24	23	23	112	91	45	24	24	19
8	23	24	24	24	22	23	116	86	40	24	21	21
9	23	24	23	22	19	23	111	86	38	20	21	21
10	23	25	20	19	22	22	97	89	35	20	19	19
11	23	25	24	23	22	25	97	79	38	21	20	16
12	25	25	23	17	22	25	115	75	39	21	19	15
13	25	25	23	19	21	26	152	73	36	23	18	18
14	27	25	23	18	20	26	198	70	37	21	17	18
15	28	26	20	18	16	27	184	69	31	19	18	19
16	28	27	22	19	22	26	234	64	27	18	16	18
17	27	26	22	23	22	26	266	42	31	19	17	18
18	27	25	22	23	21	27	294	49	31	20	19	19
19	27	25	16	23	22	31	327	60	29	20	19	21
20	27	26	18	23	22	37	332	54	31	19	18	22
21	26	24	22	23	22	36	336	52	36	19	18	20
22	26	24	23	23	22	33	289	49	32	19	19	19
23	26	25	24	23	22	31	259	51	31	18	21	20
24	25	25	23	23	22	36	240	54	32	17	22	21
25	25	25	23	23	23	33	238	56	35	19	22	18
26	25	25	25	22	23	33	236	54	32	20	21	15
27	25	24	24	19	22	36	224	46	29	21	21	15
28	25	24	31	23	23	41	196	44	29	18	21	15
29	25	24	30	23	-	45	170	54	29	18	21	16
30	25	24	28	23	-	59	153	50	31	18	20	17
31	25	-	26	19	-	72	-	47	-	21	19	-

Monthly discharge, in second-feet, 1945-46

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 17-30, 1945	1,273	151	28	90.9	2,520
May	5,257	343	56	170	10,430
June	1,882	81	37	62.7	3,730
July	906	41	20	29.2	1,800
August	705	28	18	22.7	1,400
September	636	25	19	21.2	1,260
The period	-	-	-	-	21,140
October 1945	777	28	23	25.1	1,540
November	743	27	24	24.8	1,470
December	726	31	16	23.4	1,440
Calendar year	-	-	-	-	-
January 1946	689	25	17	22.2	1,370
February	609	23	16	21.8	1,210
March	959	72	22	30.9	1,900
April	5,399	336	58	180	10,710
May	2,173	134	42	70.1	4,310
June	1,058	45	27	35.3	2,100
July	672	33	17	21.7	1,330
August	618	24	16	19.9	1,230
September	560	22	15	18.7	1,110
Water year 1945-46	14,983	336	15	41.0	29,720

Time basis: Mountain war time up to 2 a.m., Sept. 30, 1945; mountain standard time thereafter. To convert war time to standard time, subtract 1 hour.

Provo River near Charleston, Utah

Location.- Water-stage recorder, lat. 40°29', long. 111°28', in SW¼ sec. 11, T. 4 S., R. 4 E., 900 feet upstream from Snake Creek and 1½ miles northeast of Charleston.

Records available.- October 1945 to September 1946. October 1938 to September 1945 collected by Bureau of Reclamation, available in files of Salt Lake City district office, Geological Survey.

Extremes.- Maximum discharge during year, 1,420 second-feet Apr. 21 (gage height, 3.76 feet); minimum, 25 second-feet Aug. 13.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Many diversions above station for irrigation. Records include flow of Weber-Provo diversion canal (see p. 118). Flow also slightly affected by small lakes near headwaters that serve as reservoirs.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	85	143	128	115	133	283	1,020	417	a49	34	30
2	56	98	115	122	126	143	308	936	402	a48	34	30
3	58	102	102	128	119	160	268	896	412	a47	31	29
4	58	100	140	126	119	153	245	952	603	a46	30	29
5	54	96	145	128	119	150	264	1,010	864	a45	29	29
6	53	115	138	126	115	143	304	1,000	960	a44	30	29
7	51	133	136	115	122	119	338	1,010	960	a43	29	28
8	56	126	124	126	117	102	334	928	880	a42	30	29
9	56	115	102	94	119	91	356	952	824	a41	30	29
10	53	124	94	89	115	122	334	968	800	a40	29	30
11	51	128	138	117	122	197	304	832	824	a39	33	30
12	56	128	126	108	115	213	334	792	770	a39	33	30
13	56	131	106	85	115	264	397	777	651	a38	31	29
14	61	122	98	96	115	260	525	762	571	a38	30	30
15	66	145	83	111	113	213	560	739	504	a37	30	29
16	68	166	85	108	117	197	688	695	448	a37	29	28
17	59	158	100	108	115	a182	806	695	417	37	30	28
18	56	150	115	115	115	a198	932	792	351	38	30	28
19	56	138	108	119	117	a220	1,030	936	261	38	30	28
20	56	140	96	119	113	a248	1,130	936	a80	36	30	29
21	56	111	113	111	111	a241	1,210	968	a72	34	32	28
22	58	106	155	102	122	227	1,180	1,050	a66	37	31	29
23	59	136	153	108	119	197	1,190	1,000	a64	37	31	29
24	64	150	143	122	108	230	1,130	872	a62	35	32	29
25	61	145	136	128	153	191	1,140	617	a60	37	31	29
26	58	133	136	124	138	182	1,200	552	a58	33	30	29
27	56	140	126	124	131	197	1,180	540	a56	35	30	28
28	54	140	131	106	143	245	1,120	558	a54	35	29	29
29	54	140	155	122	-	264	1,100	631	a52	35	30	29
30	56	143	158	113	-	245	1,110	552	a50	35	30	29
31	70	-	131	122	-	264	-	464	-	30	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,787	70	51	57.6	3,540
November	3,844	166	85	128	7,620
December	3,831	158	83	124	7,600
Calendar year	-	-	-	-	-
January	3,550	128	85	115	7,040
February	3,368	153	108	120	6,680
March	5,991	264	91	193	11,880
April	21,300	1,210	245	710	42,250
May	25,432	1,050	464	820	50,440
June	12,593	960	50	420	24,980
July	1,205	49	30	38.9	2,390
August	948	34	29	30.6	1,880
September	869	30	28	29.0	1,720
Water year 1945-46	84,718	1,210	28	232	168,000

a No gage-height record; discharge computed on basis of weather records and records for Weber-Provo diversion canal near Woodland.

Deer Creek Reservoir near Charleston, Utah

Location.- Mercury indicating gage, lat. 40°24', long. 111°32', in SW¼SW¼ sec. 5, T. 5 S., R. 4 E., at dam on Provo River, half a mile upstream from Deer Creek and 4½ miles southwest of Charleston. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Records available.- December 1940 to September 1946.

Extremes.- Maximum contents observed during year, 154,400 acre-feet June 19 (elevation, 5,417.65 feet); minimum, 60,970 acre-feet Feb. 21-23 (elevation, 5,371.35 feet).
1940-46: Maximum contents, that of June 19, 1946; minimum observed, 1,200 acre-feet Dec. 16, 1940 (elevation, 5,296.8 feet).

Remarks.- Reservoir is formed by earth-fill dam with concrete cut-off wall, completed in October 1941. Storage began in October 1940. Capacity, 152,560 acre-feet between elevations 5,280 feet (bottom of outlet tunnel) and 5,417 feet (top of 20-foot radial gates). Dead storage, 2,870 acre-feet below elevation 5,305 feet (sill of trash-rack structure). Water used for irrigation, domestic, and industrial purposes. Gage read once daily at 8 a.m.; contents given herein include dead storage and are computed from 12 p.m. elevations which are based on trend indicated by 8 a.m. readings.

Cooperation.- Records of daily elevations and contents furnished by Provo River water commissioner.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63,700	63,610	66,610	65,760	62,960	61,540	66,530	108,200	141,000	148,500	132,200	119,500
2	63,420	63,760	66,610	65,760	62,850	61,640	66,920	109,500	141,400	147,900	131,800	119,000
3	63,200	63,910	66,560	65,760	62,740	61,790	67,230	110,800	141,800	147,400	131,300	118,600
4	62,970	64,040	66,520	65,710	62,640	61,940	67,470	112,100	142,400	146,800	130,800	118,100
5	62,850	64,160	66,470	65,680	62,530	62,020	67,700	113,500	143,600	146,300	130,300	117,600
6	62,860	64,370	66,420	65,680	62,430	61,970	68,090	114,800	145,100	145,900	129,800	117,100
7	62,880	64,520	66,380	65,680	62,320	61,900	68,570	116,100	146,400	145,300	129,300	116,600
8	62,910	64,680	66,330	65,680	62,220	61,820	69,040	117,400	147,700	144,700	128,800	116,200
9	62,940	64,910	66,270	65,680	62,110	61,750	69,600	118,700	148,800	144,200	128,300	115,700
10	62,970	65,140	66,210	65,630	62,000	61,790	69,990	120,300	149,900	143,600	127,900	115,200
11	63,030	65,370	66,140	65,520	61,900	61,940	70,390	121,500	151,000	143,100	127,800	114,800
12	63,090	65,530	66,070	65,370	61,790	62,240	70,790	122,400	152,000	142,600	127,700	114,400
13	63,120	65,600	65,940	65,220	61,690	62,700	71,430	123,400	152,800	142,100	127,500	114,000
14	63,150	65,710	65,820	65,060	61,540	63,000	72,080	124,400	153,400	141,600	127,200	113,600
15	63,180	65,840	65,690	64,910	61,390	63,120	73,380	125,500	153,800	141,100	127,000	113,200
16	63,240	65,990	65,570	64,760	61,290	63,200	75,020	126,400	154,000	140,500	126,800	112,800
17	63,300	66,110	65,450	64,620	61,180	63,330	77,020	127,300	154,100	139,900	126,400	112,500
18	63,300	66,220	65,320	64,480	61,090	63,530	79,310	128,500	154,300	139,400	125,900	112,100
19	63,300	66,330	65,200	64,340	61,050	63,840	81,990	129,600	154,300	138,800	125,400	111,800
20	63,290	66,420	65,080	64,250	61,000	64,140	84,820	131,000	154,000	138,300	124,900	111,400
21	63,270	66,380	65,080	64,160	60,970	64,450	87,530	132,500	153,500	137,800	124,400	111,100
22	63,260	66,300	65,220	64,050	60,970	64,600	90,280	133,900	153,000	137,300	123,900	110,800
23	63,240	66,340	65,370	63,940	60,970	64,750	92,520	135,200	152,500	136,800	123,400	110,500
24	63,230	66,390	65,400	63,820	61,120	64,910	94,780	136,200	152,000	136,300	123,000	110,200
25	63,230	66,440	65,400	63,700	61,240	65,060	97,080	137,000	151,600	135,800	122,600	110,000
26	63,230	66,470	65,400	63,590	61,320	65,140	99,220	137,600	151,000	135,300	122,200	109,700
27	63,230	66,500	65,370	63,490	61,390	65,220	101,400	138,100	150,500	134,800	121,800	109,400
28	63,230	66,530	65,530	63,380	61,460	65,370	103,200	138,700	150,000	134,200	121,300	109,200
29	63,270	66,560	65,760	63,270	-	65,680	104,900	139,300	149,500	133,700	120,800	108,900
30	63,350	66,610	65,790	63,170	-	65,990	106,600	139,900	149,000	133,200	120,400	108,700
31	63,460	-	65,760	63,060	-	66,220	-	140,500	-	132,700	119,900	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	5,373.36	64,010	-
Oct. 31	5,373.00	63,460	-550
Nov. 30	5,375.05	66,610	+3,150
Dec. 31	5,374.50	65,760	-850
Calendar year 1945	-	-	+8,830
Jan. 31	5,372.74	63,060	-2,700
Feb. 28	5,371.68	61,460	-1,600
Mar. 31	5,374.80	66,220	+4,760
Apr. 30	5,397.40	106,600	+40,380
May 31	5,412.37	140,500	+33,900
June 30	5,415.67	149,000	+8,500
July 31	5,409.21	132,700	-16,300
Aug. 31	5,403.63	119,900	-12,800
Sept. 30	5,398.42	108,700	-11,200
Water year 1945-46	-	-	+44,690

Provo River near Wildwood, Utah

Location.- Water-stage recorder, lat. 40°24', long. 111°32', in NE¼ sec. 7, T. 5 S., R 4 E., 1,500 feet downstream from Deer Creek, half a mile downstream from Deer Creek Reservoir, and 2 miles northeast of Wildwood.

Records available.- October 1945 to September 1946. October 1938 to September 1945 collected by Bureau of Reclamation, available in files of Salt Lake City district office, Geological Survey.

Extremes (regulated).- Maximum discharge during year, 891 second-feet May 15 (gage height, 3.92 feet); minimum, 30 second-feet Dec. 28.

Remarks.- Records 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. Small transmountain diversion from Strawberry River drainage to Daniels Creek. Records include flow of Weber-Provo diversion canal (see p. 118).

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	374	189	277	273	273	218	277	496	397	450	379	365
2	339	189	277	273	270	218	277	496	374	450	356	352
3	322	192	277	277	270	215	277	501	365	450	365	352
4	322	192	277	277	270	215	277	501	411	431	379	356
5	251	192	273	277	270	243	281	506	411	421	383	365
6	182	192	273	281	270	254	281	511	440	416	388	365
7	182	195	273	277	270	251	285	548	475	431	388	365
8	186	192	273	277	270	251	285	548	480	440	383	365
9	189	186	273	277	270	251	289	548	460	440	370	365
10	189	192	273	277	270	258	289	522	450	440	318	344
11	189	192	273	273	270	258	289	496	450	440	226	326
12	189	236	273	273	270	258	289	496	455	416	229	322
13	189	270	273	273	270	270	297	455	455	411	226	344
14	189	262	270	273	270	266	310	480	501	402	229	348
15	186	258	266	273	270	266	145	450	506	388	229	314
16	186	254	266	277	266	262	76	411	491	397	229	302
17	186	254	270	273	266	262	82	426	506	402	326	302
18	189	251	270	273	266	262	88	450	491	406	406	306
19	189	258	270	273	236	266	88	421	445	406	402	297
20	189	266	270	273	218	266	88	416	411	402	406	289
21	189	266	273	277	218	262	84	470	431	402	406	270
22	189	270	277	277	218	262	176	501	416	402	406	258
23	189	270	277	277	218	262	306	496	431	402	406	258
24	189	273	273	273	222	262	370	496	436	402	397	254
25	186	270	273	273	222	262	411	501	445	397	361	258
26	186	273	273	273	222	262	486	450	455	402	344	258
27	189	270	270	273	222	262	496	426	455	402	344	258
28	189	273	244	273	218	266	496	431	455	402	348	258
29	192	277	281	270	-	266	496	431	455	402	361	258
30	192	277	273	270	-	270	496	431	455	406	361	258
31	192	-	277	273	-	273	-	406	-	421	370	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,499	374	182	210	12,890
November	7,131	277	186	238	14,140
December	8,438	281	244	272	16,740
Calendar year	-	-	-	-	-
January	8,509	281	270	274	16,880
February	7,065	273	218	252	14,010
March	7,919	273	215	255	15,710
April	8,387	496	76	280	16,640
May	14,717	548	406	475	29,190
June	13,408	506	365	447	26,590
July	12,879	450	388	415	25,550
August	10,721	406	226	346	21,260
September	9,332	365	254	311	18,510
Water year 1945-46	115,005	548	76	315	228,100

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 1946.

Average discharge.- 34 years, 349 second-feet (since 1932 flow includes that of Weber-Provo diversion canal).

Extremes.- Maximum discharge during year, 837 second-feet (regulated) May 15 (gage height, 4.02 feet); minimum daily, 98 second-feet (regulated) Apr. 16.
1911-46: Maximum discharge observed, 3,180 second-feet July 11, 1921; minimum, 49 second-feet July 17, 1934.

Remarks.- Records 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. Small transmountain diversions from Strawberry River drainage into Daniels Creek. Records include flow of Weber-Provo diversion canal (see p. 118).

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	378	199	284	284	284	240	289	533	438	472	396	378
2	347	197	281	284	284	240	292	530	419	472	371	368
3	323	197	281	289	286	242	286	530	412	469	378	368
4	323	197	281	289	284	242	286	526	462	455	390	368
5	260	197	278	286	281	263	292	533	476	442	400	371
6	190	195	278	284	281	276	295	541	504	445	400	371
7	190	197	278	284	284	273	300	578	541	455	403	371
8	190	197	276	284	284	273	300	578	537	469	396	374
9	190	197	276	281	281	273	297	582	515	469	387	374
10	195	197	276	281	281	276	297	559	497	466	350	356
11	195	199	276	281	284	276	297	526	501	466	257	332
12	197	240	276	278	284	276	300	526	497	435	263	329
13	195	270	276	281	284	289	312	480	501	435	260	341
14	195	265	276	284	278	292	323	504	544	425	260	347
15	195	265	278	284	276	286	170	476	559	419	263	326
16	195	265	278	284	281	284	98	445	533	429	260	309
17	195	263	278	284	278	284	108	458	537	432	329	309
18	195	265	278	284	281	286	118	490	522	435	403	309
19	195	273	278	284	276	276	122	462	480	442	406	300
20	195	281	278	284	242	281	127	466	445	438	406	295
21	195	278	278	284	240	278	125	508	462	435	406	284
22	197	278	284	284	237	276	216	544	452	432	406	268
23	197	281	284	284	237	278	338	544	462	432	406	270
24	197	281	278	284	240	281	409	541	466	432	396	270
25	197	281	281	284	240	278	445	541	472	429	365	268
26	197	281	284	281	240	278	515	494	480	425	353	268
27	197	281	278	281	240	278	541	472	480	422	353	268
28	197	284	252	281	240	281	541	483	480	416	359	268
29	197	284	303	281	-	284	537	483	476	416	368	268
30	199	284	295	281	-	284	537	483	472	416	368	268
31	199	-	286	284	-	286	-	458	-	422	374	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,707	378	190	216	13,300
November	7,369	284	195	246	14,620
December	8,664	303	252	279	17,180
Calendar year 1945	139,389	921	184	382	276,500
January	8,783	289	278	283	17,420
February	7,508	286	237	268	14,890
March	8,510	292	240	275	16,880
April	9,113	541	98	304	18,080
May	15,874	582	445	512	31,490
June	14,622	559	412	487	29,000
July	13,647	472	416	440	27,070
August	11,132	406	257	359	22,080
September	9,596	378	268	320	19,030
Water year 1945-46	121,525	582	98	333	241,000

Provo River at Provo, Utah

Location.- Water-stage recorder, lat. 40°14'15", long. 111°41'45", in NE¼SE¼ sec. 3, T. 7 S., R. 2 E., 1,300 feet 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 and November 1938 to September 1946. January 1937 to November 1938 at site 1,100 feet 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, 458 second-feet Dec. 28 (gage height, 4.20 feet); minimum daily, 0.3 second-foot July 27.

1903-5, 1933-34, 1937-46: Maximum discharge observed, 1,620 second-feet May 27, 1904; practically no flow during several periods.

Remarks.- Records good. Station is below all diversions. At times entire flow is diverted above station for irrigation. Flow regulated by Deer Creek Reservoir and small lakes at headwaters that serve as reservoirs. Small transmountain diversions from Strawberry River drainage into Daniels Creek. Records include flow of Weber-Provo diversion canal (see p. 118). Factory race diverts water above station into Provo Bay, an arm of Utah Lake, and Provo River water commissioner furnished following records of this diverted flow for water year 1945-46:

Month	Diversion (acre-feet)	Month	Diversion (acre-feet)
October	583	May	552
November	726	June	576
December	930	July	527
January	893	August	477
February	806	September	420
March	1,104		
April	552	Water year 1945-46	8,146

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	210	179	290	324	307	270	314	69	91	1.0	0.7	5.9
2	199	175	283	312	307	270	327	78	86	.9	.5	5.6
3	166	179	283	307	305	267	322	47	41	.9	.7	4.4
4	160	179	283	310	307	270	317	24	9.8	.8	1.2	3.8
5	160	179	281	312	310	276	312	29	5.9	1.0	1.2	4.4
6	137	175	279	307	310	298	305	32	3.4	1.1	1.0	3.8
7	127	179	283	314	310	298	317	19	10	1.0	1.0	3.8
8	125	189	283	317	310	293	317	18	8.0	.8	.7	4.1
9	99	207	283	314	310	295	327	15	6.3	.6	.8	3.1
10	78	207	286	310	310	295	330	43	6.6	.6	18	2.4
11	81	214	288	314	302	295	324	42	6.3	.5	15	2.6
12	107	231	288	310	300	295	324	29	3.8	.5	7.6	2.8
13	162	272	286	310	302	312	322	30	2.6	.6	3.8	2.8
14	171	270	286	310	310	327	330	22	2.6	.8	3.8	2.8
15	175	274	286	310	310	322	238	19	5.1	.8	4.4	2.9
16	177	281	288	310	310	320	103	9.4	2.9	.8	3.1	2.9
17	179	281	300	310	310	317	86	6.3	3.4	.7	3.4	3.4
18	179	281	298	310	307	314	94	10	6.6	.8	2.2	5.4
19	181	288	290	310	302	317	77	3.8	2.1	.8	1.7	12
20	179	298	288	312	279	330	74	2.6	1.3	.6	.8	14
21	179	298	293	310	274	327	58	2.6	1.2	.6	.6	15
22	179	300	317	310	276	320	65	2.4	1.0	.5	.8	12
23	177	300	317	310	274	317	147	4.1	1.0	.5	.4	11
24	177	283	305	310	276	317	147	10	.8	.6	2.9	10
25	179	290	305	310	276	317	130	3.8	1.0	.6	20	8.3
26	173	288	310	307	270	314	120	2.9	2.4	.4	12	5.9
27	175	293	295	305	270	312	113	2.8	8.7	.3	9.0	5.1
28	173	290	305	307	270	314	92	26	7.6	.5	7.6	4.1
29	173	288	371	307	-	312	82	104	4.1	.4	7.0	3.1
30	175	295	353	307	-	312	71	119	2.4	.4	5.6	2.6
31	179	-	334	305	-	310	-	110	-	.8	4.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,991	210	78	161	9,900
November	7,463	300	175	249	14,800
December	9,237	371	279	238	18,320
Calendar year 1945	85,195.2	721	.8	233	169,000
January	9,621	324	305	310	19,080
February	8,304	310	270	237	16,470
March	9,453	330	267	305	18,750
April	6,185	330	58	206	12,270
May	935.7	119	2.4	30.2	1,860
June	334.9	91	.8	11.2	664
July	21.2	1.1	.3	.68	42
August	142.3	20	.4	4.59	282
September	170.0	15	2.4	5.67	337
Water year 1945-46	56,858.1	371	.3	156	112,800

Weber-Provo diversion canal at Oakley, Utah

Location.- Water-stage recorder and Parshall flume, lat. 40°42'30", long. 111°16'30", in NW¼ sec. 28, T. 1 S., R. 6 E., 1,400 feet downstream from head and three-quarters of a mile east of Oakley.

Records available.- October 1945 to September 1946. October 1938 to September 1945 collected by Bureau of Reclamation, available in files of Salt Lake City district office, Geological Survey. October 1932 to September 1939 in reports of Weber River water commissioner.

Extremes.- Maximum discharge during year, 622 second-feet June 11; no water diverted from Weber River for several months.

Remarks.- Records excellent. Canal diverts water from Weber River in SW¼SW¼ sec. 21, T. 1 S., R. 6 E., for irrigation and water supply in Jordan River Basin. Figures given herein represent water diverted from main stem of Weber River, some of which may return to Weber River through seepage. No diversion from Weber River Oct. 1 to Mar.11, June 22 to Sept. 30.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	80	329	244			
2						0	78	358	220			
3						0	71	395	216			
4						0	74	409	481			
5						0	90	376	544			
6						0	101	381	512			
7						0	98	381	536			
8						0	97	378	525			
9						0	100	381	512			
10						0	96	376	533			
11						0	98	409	587			
12						19	115	462	528			
13						43	139	449	462			
14						46	185	460	447			
15						45	203	439	426			
16						44	268	422	402			
17						44	340	442	333			
18						48	409	512	277			
19						58	483	574	97			
20						75	504	555	9.1			
21						62	520	587	e8.0			
22						60	517	603	0			
23						56	470	571	0			
24						60	315	392	0			
25						53	266	313	0			
26						50	266	304	0			
27						56	273	307	0			
28						69	281	333	0			
29						72	300	329	0			
30						70	302	292	0			
31						80	-	266	-			

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	-	-	-	-	-
January	0	0	0	0	0
February	0	0	0	0	0
March	1,110	80	0	35.8	2,200
April	7,139	520	71	238	14,160
May	12,785	603	266	412	25,360
June	7,899.1	587	0	263	15,670
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1945-46	28,933.1	603	0	79.3	57,390

e Stage-discharge relation affected by backwater from checks in canal; discharge computed on basis of water commissioner's estimate.

Weber-Provo diversion canal near Woodland, Utah

Location.- Water-stage recorder and sharp crested weir, lat. 40°36'40", 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. Datum of gage is 6,318 feet above mean sea level.

Records available.- October 1931 to September 1946.

Extremes.- Maximum discharge during year, 620 second-feet May 22; no water diverted from Weber River or Beaver Creek for several months.
1931-46: Maximum daily discharge, 633 second-feet June 25, 26, 1945; no water diverted from Weber River or Beaver Creek for several months during each year.

Remarks.- Canal diverts water from Weber River in SW¼SW¼ sec. 21, T. 1 S., R. 6 E., and from Beaver Creek in NE¼SE¼ sec. 17, T. 2 S., R. 6 E., to Provo River for irrigation along Provo and Jordan Rivers. Figures given herein represent flow reaching Provo River during periods when water was diverted from Weber River and Beaver Creek. Not all of flow diverted reaches Provo River due to evaporation, transpiration, and seepage losses. No water was diverted from Weber River or Beaver Creek on days for which no figures are given.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	83	400	272			
2						0	79	408	260			
3						0	76	432	231			
4						0	64	452	444			
5						0	87	427	556			
6						0	115	432	518			
7						0	114	436	540			
8						0	112	430	529			
9						0	115	434	511			
10						0	108	428	524			
11						0	106	432	578			
12						3	127	490	531			
13						10	156	464	466			
14						13	216	471	446			
15						14	233	456	438			
16						13	314	434	415			
17						12	395	448	360			
18						16	458	507	291			
19						24	531	575	159			
20						46	556	568	0			
21						42	585	580	0			
22						38	570	607	0			
23						32	561	582	0			
24						38	411	438	0			
25						32	368	341	0			
26						31	368	330	0			
27						32	371	332	0			
28						48	371	350	0			
29						66	389	355	0			
30						63	389	323	0			
31						75	-	292	-			

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 1945	20,201.7	633	0	55.3	40,060
January	0	0	0	0	0
February	0	0	0	0	0
March	648	75	0	20.9	1,290
April	8,428	585	64	281	16,720
May	13,654	607	292	440	27,080
June	8,069	578	0	269	16,000
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1945-46	30,799	607	0	84.4	61,090

Snake Creek near Charleston, Utah

Location.- Water-stage recorder, lat. 40°29', long. 111°28', in SW¼ sec. 11, T. 4 S., R. 4 E., 600 feet upstream from mouth and 1½ miles northeast of Charleston.

Records available.- October 1945 to September 1946. October 1938 to September 1945 collected by Bureau of Reclamation available in files of Salt Lake City district office, Geological Survey.

Extremes.- Maximum discharge during year, 91 second-feet May 10 (gage height, 2.68 feet); minimum, 33 second-feet Sept. 4.

Remarks.- Records fair. Some diversions above station for irrigation.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	63	60	54	45	44	48	56	54	46	38	36
2	56	64	58	54	44	44	49	58	56	45	39	35
3	55	64	57	54	44	46	47	52	49	43	38	36
4	55	63	56	54	44	46	47	48	49	44	39	35
5	56	61	55	54	44	47	48	53	53	45	39	36
6	59	64	54	54	44	46	48	52	55	42	40	36
7	59	67	54	54	43	44	49	55	55	44	39	35
8	58	64	54	54	44	45	48	57	54	44	38	35
9	58	62	53	54	44	46	49	64	56	44	38	36
10	60	64	53	53	44	49	49	79	56	42	41	36
11	59	67	54	53	44	54	48	70	59	42	39	36
12	60	68	54	52	44	56	48	62	68	42	39	35
13	59	68	54	51	43	62	49	62	62	41	38	35
14	63	66	54	50	42	60	49	60	59	40	36	36
15	57	67	52	50	42	56	50	56	57	39	36	39
16	55	68	50	49	42	54	52	53	58	37	36	38
17	55	66	52	49	41	54	52	53	56	37	36	38
18	55	64	52	49	41	55	52	53	51	37	36	40
19	57	63	52	48	41	55	51	54	55	38	38	40
20	57	62	51	48	40	55	52	54	56	38	38	40
21	58	60	51	47	41	52	58	57	60	39	38	40
22	62	59	55	47	41	51	53	61	56	39	39	40
23	61	60	55	47	41	50	49	66	53	39	36	40
24	57	59	53	47	43	51	47	59	52	39	37	40
25	56	58	52	46	44	49	54	54	50	37	37	40
26	55	59	52	47	44	48	59	53	47	37	36	40
27	56	59	51	46	44	48	67	50	48	38	36	39
28	54	59	54	46	44	48	60	50	46	38	35	40
29	55	59	58	46	-	47	62	56	48	39	35	40
30	58	59	57	45	-	44	56	57	46	39	35	41
31	60	-	55	45	-	42	-	54	-	40	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,782	63	54	57.5	3,530
November	1,886	68	58	62.9	3,740
December	1,672	60	50	53.9	3,320
Calendar year	-	-	-	-	-
January	1,547	54	45	49.9	3,070
February	1,202	45	40	42.9	2,380
March	1,548	62	42	49.9	3,070
April	1,550	67	47	51.7	3,070
May	1,768	79	48	57.0	3,510
June	1,624	68	46	54.1	3,220
July	1,254	46	37	40.5	2,490
August	1,161	41	35	37.5	2,300
September	1,133	41	35	37.8	2,250
Water year 1945-46	18,127	79	35	49.7	35,950

Round Valley Creek near Wallsburg, Utah

Location.- Water-stage recorder, lat. 40°24'30", long. 111°28'30", in SE¼ sec. 3, T. 5 S., R. 4 E., 1,900 feet upstream from high-water line of Deer Creek Reservoir and 3¼ miles northwest of Wallsburg.

Records available.- October 1945 to September 1946. October 1938 to September 1945 collected by Bureau of Reclamation, available in files of Salt Lake City district office, Geological Survey.

Extremes.- Maximum discharge during year, 179 second-feet Apr. 21 (gage height, 3.24 feet); minimum, 2.1 second-feet Aug. 8-10.

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

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.3	8.8	13	9.2	10	16	21	32	8.8	2.8	2.7	2.7
2	7.7	7.7	11	9.2	10	20	20	25	6.5	2.8	2.5	2.7
3	7.3	6.9	9.6	8.8	10	17	16	20	4.9	2.5	2.5	2.7
4	6.5	6.9	10	9.2	10	14	14	18	5.2	2.8	2.7	2.7
5	6.5	6.9	10	10	10	14	15	15	4.9	3.2	2.5	2.7
6	6.5	6.9	10	10	10	13	19	14	4.6	2.8	2.3	2.7
7	6.5	10	10	9.6	9.6	14	29	12	5.5	2.8	2.3	2.7
8	6.5	8.0	10	10	9.2	13	26	10	4.6	3.0	2.3	2.7
9	6.1	7.7	8.8	10	9.6	14	27	12	4.4	3.0	2.1	2.7
10	5.8	8.4	8.4	10	9.6	16	23	19	4.4	3.2	2.1	2.7
11	6.1	8.8	8.8	11	9.2	15	19	19	4.4	3.5	2.3	2.8
12	8.4	9.2	9.2	10	9.2	14	21	16	5.8	3.2	2.7	2.7
13	7.3	11	8.4	11	8.4	19	27	16	5.2	3.2	2.7	2.7
14	6.5	10	8.4	10	9.2	19	32	13	4.4	3.2	2.7	2.7
15	6.1	12	8.0	10	9.2	14	35	15	3.8	2.8	2.5	2.7
16	6.5	19	7.7	10	9.2	14	47	13	3.2	2.8	2.5	2.7
17	6.5	14	8.0	10	9.2	13	69	13	3.2	2.8	2.5	2.5
18	6.1	13	7.7	10	9.6	13	93	11	3.8	2.8	2.5	2.5
19	6.1	11	7.3	10	9.6	13	125	11	3.5	2.8	2.5	2.5
20	6.1	12	7.7	10	10	19	127	11	3.8	2.8	2.7	2.8
21	6.1	10	8.4	a9.6	11	16	152	11	3.8	2.7	2.7	2.8
22	6.5	10	16	a9.8	35	14	128	10	3.5	2.7	2.7	2.8
23	6.5	10	20	a10	35	13	107	9.6	3.5	2.3	2.7	2.8
24	6.9	11	12	a10	47	14	106	11	3.8	2.7	2.8	3.0
25	6.9	11	11	a10	24	14	96	12	4.4	3.0	2.8	2.8
26	6.9	11	11	a9.8	16	14	96	13	4.1	3.0	2.8	2.8
27	6.9	11	12	a9.6	14	12	86	12	4.1	2.7	2.7	2.8
28	6.5	11	13	a9.8	19	15	64	12	3.8	2.5	2.7	2.8
29	6.5	12	58	a10	-	16	50	13	4.1	2.5	2.7	2.8
30	6.9	12	20	a10	-	16	41	11	3.0	2.5	2.7	3.0
31	11	-	9.2	a9.8	-	18	-	9.2	-	2.7	2.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	210.0	11	6.1	6.77	417
November	307.2	19	6.9	10.2	609
December	372.6	58	7.3	12.0	739
Calendar year	-	-	-	-	-
January	306.4	11	8.8	9.88	608
February	391.8	47	8.4	14.0	777
March	466	20	12	15.0	924
April	1,731	152	14	57.7	3,430
May	438.8	32	9.2	14.2	870
June	133.0	8.8	3.0	4.43	264
July	88.1	3.5	2.3	2.84	175
August	79.6	2.8	2.1	2.57	158
September	82.0	3.0	2.5	2.73	163
Water year 1945-46	4,606.5	152	2.1	12.6	9,130

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

Deer Creek near Wildwood, Utah

Location.- Water-stage recorder, lat. 40°24'30", long. 111°32'00", in NE¼ sec. 7, T. 5 S., R. 4 E., 1,000 feet upstream from mouth and 2 miles northeast of Wildwood.

Records available.- October 1945 to September 1946. October 1938 to September 1945 collected by Bureau of Reclamation, available in files of Salt Lake City district office, Geological Survey.

Extremes.- Maximum discharge during year, 76 second-feet Apr. 18; minimum, 7.7 second-feet Sept. 11.

Remarks.- Records good except those for periods of ice effect, which are fair. One small irrigation diversion above station.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	15	13	13			20	28	14	11	9.7	8.2
2	14	14	13	12			20	27	14	11	9.4	8.1
3	14	14	*12	12		b11	18	26	13	11	9.4	8.0
4	14	14	13	12			18	25	13	11	9.4	7.9
5	14	14	13	12		12	19	24	12	11	9.2	8.1
6	14	15	13	12		12	20	23	12	11	9.2	8.1
7	14	15	13	12		11	22	22	12	11	9.1	8.1
8	14	14	13	12		12	22	21	12	10	9.0	8.1
9	14	14	12			12	22	22	12	10	8.8	8.0
10	14	14	b12			13	20	24	12	10	8.6	8.0
11	14	15	13			13	21	22	11	10	9.0	7.9
12	14	15	13			13	24	20	11	10	9.0	7.9
13	14	14	b13			16	31	20	11	9.7	8.8	7.9
14	14	14	13			15	38	20	11	9.7	8.8	8.0
15	13	15	b13			14	42	20	11	9.6	8.6	8.4
16	13	15	13		*b10	14	51	20	12	9.6	8.6	9.4
17	13	14	13			14	58	19	12	9.6	8.6	9.6
18	13	14	13			15	64	16	12	9.4	8.5	9.6
19	13	14	b12			15	59	15	12	9.4	8.5	10
20	13	14	b12	b11		*15	65	15	12	9.4	8.8	9.7
21	13	13	12			15	56	14	12	9.4	8.8	9.7
22	13	13	13			14	52	14	11	9.6	9.0	10
23	13	13	13			15	51	15	11	9.7	9.0	10
24	13	14	13			15	49	15	11	10	9.0	10
25	13	14	12			15	48	15	11	9.6	9.0	10
26	13	14	13			15	44	14	11	9.6	8.8	10
27	13	13	12			16	40	14	11	9.7	8.8	10
28	13	13	13			18	36	14	11	9.7	8.6	10
29	13	13	14		-	19	33	14	11	9.7	8.5	10
30	14	13	13		-	19	31	14	11	9.7	8.4	10
31	15	-	13		-	20	-	14	-	9.6	8.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	420	15	13	13.5	833
November	420	15	13	14.0	833
December	396	14	12	12.8	785
Calendar year	-	-	-	-	-
January	350	13	-	11.3	694
February	280	-	-	10	555
March	441	20	11	14.2	875
April	1,094	65	18	36.5	2,170
May	586	28	14	18.9	1,160
June	352	14	11	11.7	698
July	309.7	11	9.4	9.99	614
August	275.1	9.7	8.2	8.87	546
September	268.7	10	7.9	8.96	533
Water year 1945-46	5,192.5	65	7.9	14.2	10,300

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

South Fork Provo River at Vivian Park, Utah

Location.- Water-stage recorder and Parshall flume, lat. 40°21', long. 111°34', in SE¼ 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 1946.

Average discharge.- 34 years, 30.2 second-feet.

Extremes.- Maximum discharge during year, 41 second-feet Oct. 12 (gage height, 1.10 feet); minimum, 19 second-feet July 3.
1911-46: Maximum discharge observed, 123 second-feet May 27, 1922; minimum, 13 second-feet several times in 1934, 1935, Apr. 2, 1937.

Remarks.- Records good. Station below all diversions.

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

Discharge, in second-feet, water yesr October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	36	30	32	30	29	30	29	28	28	29	31
2	36	36	27	32	30	30	31	31	27	28	30	31
3	36	35	26	32	30	30	30	30	26	28	30	30
4	36	35	27	32	30	30	29	28	27	26	30	30
5	36	36	27	32	30	30	29	29	28	26	28	29
6	36	36	28	32	30	30	30	30	30	26	29	30
7	36	36	32	32	30	29	30	32	31	26	30	30
8	36	36	33	32	30	29	30	31	31	28	29	30
9	36	34	34	32	30	30	30	32	30	28	28	28
10	36	34	34	32	30	30	30	34	30	27	30	26
11	36	35	34	32	29	30	30	32	25	28	29	25
12	37	35	34	30	29	30	30	32	26	28	29	25
13	36	36	34	30	28	32	30	32	28	28	30	26
14	36	36	34	30	28	31	28	32	29	28	30	27
15	36	36	34	30	28	30	26	32	28	27	29	28
16	35	36	33	30	28	30	26	32	28	27	29	29
17	36	34	33	30	28	30	28	31	28	28	29	30
18	35	34	34	30	28	30	32	30	28	27	28	30
19	35	34	34	30	28	30	34	30	28	27	28	30
20	36	34	33	30	28	31	34	30	30	28	28	29
21	35	33	32	30	28	30	36	31	28	28	29	29
22	35	a33	34	32	28	30	36	30	28	28	29	29
23	35	a33	34	31	29	30	36	30	28	28	29	29
24	35	a33	32	32	30	30	35	30	28	28	30	28
25	35	a34	32	32	29	29	36	30	27	28	30	28
26	35	a34	34	32	28	28	36	28	25	28	30	30
27	35	34	32	32	28	28	35	28	26	28	30	30
28	34	34	36	31	28	28	32	28	25	28	31	32
29	34	34	36	31	-	28	32	28	23	28	32	32
30	35	32	34	30	-	28	32	28	25	28	31	31
31	36	-	33	30	-	30	-	28	-	29	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,102	37	34	35.5	2,190
November	1,038	36	32	34.6	2,060
December	1,004	36	26	32.4	1,990
Calendar year 1945	11,708	53	19	32.1	23,220
January	965	32	30	31.1	1,910
February	810	30	28	28.9	1,610
March	920	32	28	29.7	1,820
April	943	36	26	31.4	1,870
May	938	34	28	30.3	1,860
June	829	31	23	27.6	1,640
July	856	29	26	27.6	1,700
August	915	32	28	29.5	1,810
September	872	32	25	29.1	1,730
Water year 1945-46	11,192	37	23	30.7	22,190

a No gage-height record; discharge interpolated.

American Fork above upper power plant, near American Fork, Utah

Location.- Water-stage recorder, lat. 40°27', long. 111°41', in NE¼ sec. 23, T. 4 S., R. 2 E., 500 feet downstream from Rock Creek, 1,000 feet upstream from intake for upper power plant of Utah Power & Light Co., about 4 miles upstream from mouth of canyon, and 8 miles northeast of American Fork.

Records available.- October 1945 to September 1946. January 1927 to September 1945 available in files of Salt Lake City District Office, Geological Survey.

Extremes.- Maximum discharge during year, 315 second-feet Apr. 29 (gage height, 6.36 feet); minimum daily, 14 second-feet Feb. 9.
1927-46: Maximum daily discharge, 429 second-feet May 17, 1927; minimum daily, 5 second-feet Feb. 3, 1936.

Remarks.- Records good. No diversion above station.

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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	28	h22	19	16	17	30	226	108	78	32	22
2	30	28	a17	19	16	17	28	204	108	77	31	22
3	30	27	a15	19	16	18	26	209	122	73	31	22
4	30	27	a19	19	16	17	27	233	154	70	30	22
5	29	27	h20	19	b15	17	29	260	186	65	30	22
6	29	26	a20	19	16	17	31	269	200	62	29	21
7	29	26	a20	18	16	16	32	252	190	59	29	22
8	28	23	a17	19	16	16	32	243	186	58	28	22
9	28	23	a16	b16	b14	18	31	236	179	61	28	22
10	28	25	a15	b17	16	18	30	209	172	59	28	22
11	29	25	18	b18	16	19	31	179	164	57	30	22
12	34	25	19	b17	15	20	38	160	150	57	30	21
13	30	24	a17	b18	15	22	47	152	146	56	29	20
14	29	23	19	18	15	21	60	146	150	54	28	20
15	28	25	a18	18	*15	20	71	143	148	52	28	20
16	29	24	a20	17	15	19	100	143	143	50	26	20
17	28	24	a20	*16	15	19	128	160	130	47	25	20
18	28	23	a20	17	15	20	158	181	122	45	25	20
19	28	24	17	16	16	23	166	195	104	45	25	20
20	28	22	20	16	16	25	188	202	101	44	25	20
21	28	a15	17	b15	16	23	183	209	103	42	25	20
22	28	16	20	17	16	22	200	202	106	41	25	20
23	27	a21	18	16	16	22	215	177	104	41	25	20
24	26	22	18	17	17	23	230	154	98	53	28	20
25	26	24	17	16	18	21	252	135	91	41	26	19
26	26	25	18	16	16	22	279	130	88	39	25	19
27	25	23	18	b15	17	25	272	127	85	36	24	19
28	25	23	20	16	18	30	267	135	84	35	24	19
29	24	23	21	16	-	31	274	128	83	36	23	19
30	28	a22	19	16	-	32	279	117	80	36	23	19
31	31	-	19	b15	-	32	-	111	-	34	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	876	34	24	28.3	1,740
November	713	28	15	23.8	1,410
December	574	22	15	18.5	1,140
Calendar year 1945	24,090	289	10	66.0	47,780
January	530	19	15	17.1	1,050
February	444	18	14	15.9	881
March	662	32	16	21.4	1,310
April	3,734	279	26	124	7,410
May	5,627	269	111	182	11,160
June	3,885	200	80	130	7,710
July	1,603	78	34	51.7	3,180
August	838	32	23	27.0	1,660
September	616	22	19	20.5	1,220
Water year 1945-46	20,102	279	14	55.1	39,870

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of power company records.
b Stage-discharge relation affected by ice.
h Computed from staff-gage readings.

Surplus Canal at Salt Lake City, Utah

Location.- Water-stage recorder, lat. 40°44', long. 111°55', in SW¼SW¼ sec. 14, T. 1 S., R. 1 W., 300 feet downstream from diversion dam which is an eighth of a mile downstream from highway bridge over Jordan River on Twenty-first South Street, Salt Lake City. Datum of gage is 4,219.02 feet above mean sea level (datum of 1929).

Records available.- December 1942 to September 1946.

Extremes (regulated).- Maximum discharge during year, 429 second-feet May 29 (gage height, 4.92 feet); minimum daily, 42 second-feet Aug. 4.
1942-46: Maximum discharge, 965 second-feet June 3, 1944 (gage height, 7.50 feet); minimum daily, 31 second-feet July 4, 1943.

Remarks.- Records fair. Flow regulated by head gates at diversion dam 300 feet above station. Canal was built to bypass floodwater of Jordan River around Salt Lake City residential area. (See p. 104 for records of combined flow of Jordan River and Canal.) Several diversions below station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	98	94	83	68	67	60	239	298	102	70	70
2	140	100	91	80	76	65	75	202	278	100	54	78
3	139	99	86	78	73	66	70	221	255	105	62	63
4	128	84	83	77	75	67	76	196	212	115	42	81
5	133	92	81	82	74	68	71	148	196	124	60	88
6	145	93	79	88	73	60	71	168	182	112	65	87
7	147	96	76	83	73	60	78	139	177	112	109	85
8	144	101	77	81	75	58	75	147	142	89	104	88
9	127	96	78	77	74	57	105	158	132	86	95	98
10	128	96	74	75	73	54	139	170	143	92	83	104
11	144	112	73	75	73	52	154	188	132	79	85	100
12	150	107	76	70	74	50	147	136	121	81	89	95
13	160	110	73	70	72	50	144	125	97	82	92	97
14	145	108	68	70	72	55	145	101	86	65	96	97
15	126	99	68	70	73	56	134	84	76	60	99	94
16	104	113	66	65	75	56	139	89	63	57	103	97
17	101	107	66	65	76	54	153	73	79	54	88	115
18	97	96	64	64	76	54	190	48	80	50	75	128
19	80	83	62	61	76	50	270	48	82	43	74	139
20	93	81	60	59	76	60	299	80	73	48	74	131
21	98	78	63	54	77	67	316	101	72	62	71	131
22	102	78	70	57	78	60	342	109	76	70	79	122
23	92	78	101	60	72	57	339	132	67	71	83	113
24	92	79	102	60	57	58	302	140	79	102	102	112
25	90	82	81	76	56	63	260	130	79	102	121	103
26	90	81	83	99	56	66	263	127	85	176	138	86
27	84	81	81	98	65	73	276	186	83	152	134	87
28	78	79	83	86	68	68	268	256	78	127	130	94
29	76	77	86	78	-	65	284	400	89	109	127	100
30	74	84	90	78	-	67	284	390	99	103	96	107
31	83	-	84	a73	-	68	-	336	-	80	85	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,532	160	74	114	7,010
November	2,768	113	77	92.3	5,490
December	2,419	102	60	78.0	4,800
Calendar year 1945	39,796	420	46	109	78,950
January	2,292	99	54	73.9	4,550
February	2,004	77	56	71.6	3,970
March	1,871	73	50	60.4	3,710
April	5,529	342	60	184	10,970
May	5,067	400	48	163	10,050
June	3,711	298	63	124	7,360
July	2,877	176	43	92.8	5,710
August	2,785	138	42	89.8	5,520
September	2,990	139	63	99.7	5,930
Water year 1945-46	37,845	400	42	104	75,070

a No gage-height record; discharge computed on basis of records for Jordan River at Salt Lake City.

Sevier River at Hatch, Utah

Location.- Water-stage recorder, lat. 37°39'00", long. 112°25'30", in SW¼NW¼ 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 1928 (many years incomplete), June 1939 to September 1946.

Average discharge.- 15 years (1912-13, 1914-16, 1917-18, 1922-23, 1924-27, 1939-46) 142 second-feet.

Extremes.- Maximum discharge during year, 366 second-feet Aug. 15 (gage height, 2.44 feet); minimum discharge recorded, 47 second-feet Aug. 4, but may have been less during period of no gage-height record.

1911-28, 1939-46: Maximum discharge not determined, occurred May 25, 1914, when Hatchtown Dam failed; maximum recorded, 1,490 second-feet May 26, 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 ice effect or no gage-height record, which are fair. Two small diversions from Mammoth Creek above station for irrigation. No regulation since Hatchtown Dam failed in 1914.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	78	76	64	a63		70	61	261	91	56	52	53
2	80	76	60	a62		76	66	248	85	56	51	51
3	78	76		a60		70	60	245	80	57	50	52
4	80	71		*58		61	61	248	77	57	49	55
5	85	71		64		a58	61	245	76	57	49	53
6	84	71		64		a58	68	242	72	56	71	53
7	82	84		b60		60	76	245	72	57	62	52
8	80	76		b58		64	68	248	70	56	60	50
9	84	76		b56		68	64	239	68	56	57	50
10	84	77		a54	a52	77	62	226	68	58	57	50
11	93	76		a52		68	64	220	66	57	62	50
12	111	76		a50		62	66	201	65	58	68	50
13	104	74		a50		65	68	186	62	58	77	50
14	94	74				64	77	172	60	61	70	49
15	96	74				62	72	164	58	57	91	49
16	113	*72		a50		64	76	156	60	56	64	49
17	91	71	a58			62	85	143	60	57	60	48
18	87	71			a54	68	94	136	58	58	61	49
19	85	70			a56	66	117	129	58	57	71	49
20	82	70			a58	66	146	124	58	60	62	50
21	82	70			a60	64	156	117	56	58	61	50
22	80	70			*62	64	166	111	55	84	66	49
23	80	66			77	66	175	113	56	62	65	49
24	80	65			85	68	189	113	56	57	78	49
25	77	65		a52	76	64	210	113	57	57	60	49
26	77	62			66	65	258	104	58	56	57	48
27	76	64			66	66	280	104	56	56	56	48
28	76	61			71	66	290	104	56	56	56	48
29	76	62			-	60	267	104	56	55	55	48
30	76	64			-	60	261	98	57	53	53	49
31	76	-			-	58	-	94	-	52	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,627	113	76	84.7	5,210
November	2,131	84	61	71.0	4,230
December	1,806	64	-	58.3	3,580
Calendar year 1945	43,017	470	-	118	85,320
January	1,677	64	-	54.1	3,330
February	1,615	85	-	57.7	3,200
March	2,010	77	58	64.8	3,990
April	3,764	290	60	125	7,470
May	5,253	261	94	169	10,420
June	1,927	91	55	64.2	3,820
July	1,791	84	52	57.8	3,550
August	1,904	91	49	61.4	3,780
September	1,499	55	48	50.0	2,970
Water year 1945-46	28,004	290	48	76.7	55,550

* Winter discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

Sevier River near Kingston, Utah

Location.- Water-stage recorder and concrete control, lat. 38°12', long. 112°12', in NE¼NW¼ 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 1946.

Average discharge.- 32 years, 148 second-feet.

Extremes.- Maximum discharge during year, 330 second-feet Feb. 25 (gage height, 1.80 feet); minimum, 5.4 second-feet Aug. 19.
1914-46: Maximum discharge, 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 1,100 second-feet; minimum, 4 second-feet Sept. 9, 1943.

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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	151	157	151	b114	187	151	138	15	8	10	11
2	88	148	151	148	b117	177	154	135	17	8	8	11
3	84	148	141	144	121	174	151	98	15	8	8	11
4	84	148	141	*144	b120	174	141	61	14	8	7	11
5	91	148	141	148	b113	160	141	45	13	9	7	11
6	88	148	141	144	b112	148	141	41	13	8	8	10
7	91	151	141	b140	118	144	154	38	12	8	8	10
8	88	167	148	b135	b120	148	160	34	9	8	8	10
9	86	160	154	b130	b116	148	160	31	8	10	8	13
10	96	154	144	b123	118	154	157	25	7	9	8	11
11	123	157	148	b117	123	174	148	30	7	9	9	12
12	191	154	151	b112	b120	194	144	37	7	10	9	11
13	177	157	141	b108	b120	174	144	32	7	10	10	12
14	167	157	b130	b106	b120	187	157	28	6	10	10	13
15	167	*157	b125	b107	b122	180	167	24	6	10	14	13
16	227	151	b125	b108	126	160	157	21	7	8	46	13
17	209	151	b130	b110	138	160	184	21	7	8	32	13
18	198	144	b130	b114	151	160	201	23	7	8	13	13
19	187	141	a125	b120	160	163	191	22	7	8	10	13
20	180	144	a125	121	163	201	194	21	8	9	10	15
21	174	135	a130	109	*170	198	205	20	8	9	31	14
22	174	138	a130	104	177	170	220	18	9	10	84	14
23	167	144	a135	b108	194	160	224	15	8	10	63	14
24	163	148	a135	b110	243	157	216	16	8	10	43	15
25	160	148	a140	b115	291	160	235	15	8	10	45	16
26	157	151	a145	b116	220	157	231	13	9	9	34	16
27	160	148	a150	b118	191	154	212	12	9	9	19	16
28	157	148	a160	b119	177	160	205	13	9	9	18	21
29	148	148	170	b116	-	163	209	15	8	8	13	16
30	154	154	167	b114	-	157	163	18	8	8	11	16
31	151	-	157	b113	-	151	-	17	-	8	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,473	227	84	144	8,870
November	4,498	167	135	150	8,920
December	4,408	170	125	142	8,740
Calendar year 1945	45,971	342	18	126	91,170
January	3,772	151	104	122	7,480
February	4,175	291	112	149	8,280
March	5,154	201	144	166	10,220
April	5,317	235	141	177	10,550
May	1,077	138	12	34.7	2,140
June	276	17	6	9.2	547
July	274	10	8	8.8	543
August	615	84	7	19.8	1,220
September	395	21	10	13.2	783
Water year 1945-46	34,434	291	6	94.3	68,290

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station at Hatch.
b Stage-discharge relation affected by ice.

Piute Reservoir near Marysvale, 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 Marysvale. Datum of gage is 5,900.8 feet above mean sea level.

Drainage area.- 2,440 square miles.

Records available.- March 1914 to September 1946.

Extremes.- Maximum contents during year, 74,010 acre-feet Apr. 7-16, 23, 24 (gage height, 76.0 feet); minimum, 2,020 acre-feet Sept. 30 (gage height, 26.1 feet).
1914-46: Maximum contents, 82,300 acre-feet May 28, 1922 (gage height, 76.4 feet, original capacity table); no contents at times during several years.

Remarks.- Reservoir is formed by earth-fill dam; storage began in summer of 1910. Capacity, 74,010 acre-feet between gage heights 16 feet (approximate bottom of reservoir) and 76 feet (top of flashboards on spillway since 1941). 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,370	24,140	33,200	42,780	51,550	60,540	71,500	69,300	59,880	33,990	20,980	9,900
2	16,490	24,430	33,510	43,150	51,940	60,980	72,000	68,570	59,880	33,670	20,980	9,250
3	16,600	24,710	33,830	43,510	52,330	61,200	72,500	67,850	59,880	33,040	20,980	8,630
4	16,600	24,990	34,150	43,880	52,720	61,420	73,010	67,130	59,670	32,410	20,980	8,040
5	16,600	25,280	34,320	44,420	52,920	61,640	73,510	66,190	59,240	31,790	20,840	7,470
6	16,720	25,560	34,640	44,790	53,120	62,080	73,760	65,500	58,390	31,170	20,710	6,990
7	16,720	25,850	34,960	44,980	53,320	62,530	74,010	64,800	57,550	30,560	20,580	6,370
8	16,720	26,140	35,290	45,160	53,510	62,980	74,010	64,110	56,730	29,650	20,320	5,850
9	16,720	26,420	35,620	45,340	53,710	63,210	74,010	63,210	55,910	28,760	19,930	5,550
10	16,600	26,720	35,950	45,530	53,910	63,660	74,010	62,310	55,110	27,880	19,540	5,270
11	16,600	27,000	36,290	45,710	54,110	64,110	74,010	61,860	54,110	27,000	19,040	4,980
12	16,720	27,300	36,630	45,900	54,310	64,570	74,010	62,310	53,120	26,420	18,540	4,700
13	17,190	27,580	36,790	46,080	54,510	65,030	74,010	62,760	52,130	25,850	18,160	4,440
14	17,560	27,880	36,960	46,260	54,710	65,500	74,010	62,980	50,780	25,280	17,920	4,170
15	17,920	28,320	37,130	46,450	54,910	65,960	74,010	62,980	49,810	24,850	17,800	3,980
16	18,280	28,610	37,300	46,640	55,310	66,190	74,010	62,980	49,060	24,430	17,680	3,730
17	18,660	28,910	37,470	46,820	55,710	66,650	73,760	62,760	48,120	24,000	17,560	3,600
18	19,040	29,200	37,650	47,000	56,120	66,890	73,760	62,760	47,190	23,440	17,430	3,670
19	19,410	29,500	37,820	47,190	56,530	67,370	73,510	62,530	46,080	22,890	17,190	3,730
20	19,800	29,800	38,160	47,380	56,930	67,850	73,510	62,310	45,160	22,470	16,950	3,790
21	20,190	30,110	38,510	47,560	57,140	68,090	73,760	61,860	44,240	22,060	16,600	3,910
22	20,580	30,410	38,850	47,930	57,550	68,330	73,760	61,420	43,150	21,790	16,370	3,850
23	20,980	30,710	39,200	48,490	57,750	68,570	74,010	60,980	42,420	21,660	16,140	3,730
24	21,380	31,020	39,560	49,060	58,170	68,810	74,010	60,540	41,520	21,520	15,910	3,480
25	21,790	31,330	39,910	49,430	58,820	69,300	73,760	60,100	40,620	21,380	15,230	3,260
26	22,200	31,630	40,270	49,810	59,240	69,780	73,260	59,880	39,740	21,250	14,560	3,030
27	22,610	31,940	40,620	50,200	59,670	70,030	72,760	59,670	38,850	21,250	13,910	2,770
28	22,890	32,250	41,160	50,970	60,100	70,280	72,000	59,450	37,990	21,250	13,260	2,470
29	23,160	32,570	41,700	50,970	-	70,760	71,260	59,240	37,130	21,120	12,620	2,240
30	23,440	32,880	42,060	51,160	-	71,010	70,030	59,450	36,290	21,120	12,090	2,020
31	23,860	-	42,420	51,350	-	71,500	-	59,670	-	21,120	10,470	-

Monthly gage height and contents, water year October 1945 to September 1946

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	43.4	16,250	-
Oct. 31	49.3	23,860	+7,610
Nov. 30	55.4	32,880	+9,020
Dec. 31	61.0	42,420	+9,540
Calendar year 1945	-	-	+2,330
Jan. 31	65.8	51,350	+8,930
Feb. 28	70.1	60,100	+8,750
Mar. 31	75.0	71,500	+11,400
Apr. 30	74.4	70,030	-1,470
May 31	69.9	59,670	-10,360
June 30	57.5	36,290	-23,380
July 31	47.3	21,120	-15,170
Aug. 31	38.0	10,470	-10,650
Sept.30	26.1	2,020	-8,450
Water year 1945-46	-	-	-14,230

Sevier River below Piute Dam, near Marysvale, Utah

Location.- Water-stage recorder, lat. 38°20', long. 112°11', in NE¼ sec. 31, 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 1946.

Average discharge.- 34 years (1912-46), 250 second-feet.

Extremes (regulated).- Maximum discharge during year, 773 second-feet June 30 (gage height, 2.83 feet); minimum daily, 4 second-feet on many days December to February. 1911-46: Maximum discharge, 2,600 second-feet May 23, 24, 1922; practically no flow at times when reservoir gates are closed.

Remarks.- Records good except those for Oct. 22 to Apr. 5, which are fair. One small diversion between gage and Piute Reservoir. Flow regulated by Piute Reservoir (see preceding page).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	30	41	4	4	5	6	602	71	765	285	392
2	137	29	41	4	4	5	6	594	98	749	249	438
3	158	29	41	4	4	5	6	570	147	594	190	516
4	158	39	9	4.3	4	5	6	546	374	563	217	497
5	158	39	9	4	4	5	6	523	478	574	252	478
6	142	39	9	4	5	5	48	523	531	610	249	467
7	126	40	9	4	5	5	238	539	535	662	261	463
8	158	40	9	4	5	5	295	554	531	707	388	489
9	215	40	9	4	5	5	255	554	527	704	398	489
10	235	40	9	4	5	5	212	543	554	704	463	478
11	217	40	9	4	5	5	209	137	618	704	470	427
12	179	40	9	4	5	6	209	10	686	654	388	427
13	106	40	9	4	5	6	212	10	693	598	361	420
14	106	40	9	4	5	6	212	51	638	558	361	381
15	106	43	9	4	5	6	235	94	586	500	361	308
16	104	40	9	4	5	6	308	133	527	539	249	264
17	104	40	9	4	5	6	497	171	550	574	243	246
18	65	40	9	4	5	6	543	179	618	614	350	187
19	51	40	4	4	5	6	539	223	618	586	381	184
20	51	40	4	4	5	6	463	264	554	554	482	184
21	51	40	4	4	4.8	6	452	243	497	531	474	163
22	36	40	4	4	5	6	459	276	470	474	441	140
23	30	40	4	4	5.1	6	474	337	535	388	409	147
24	30	40	4	4	5	6	470	350	519	392	409	232
25	30	41	4	4	5	6	470	273	519	388	430	246
26	30	41	4	4	5	6	622	261	523	301	423	246
27	30	41	4	4	5	6	678	261	582	308	423	243
28	30	41	4	4	5	6	646	252	662	311	388	324
29	30	41	4	4	-	6	634	37	662	367	357	367
30	30	41	4	4	-	6	610	10	769	354	354	344
31	30	-	4.3	4	-	6	-	24	-	344	344	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,031	235	30	97.8	6,010
November	1,174	43	29	39.1	2,330
December	310.3	41	4	10.0	615
Calendar year 1945	65,549.7	693	4	180	130,000
January	124.3	4.3	4	4.0	247
February	134.9	5.1	4	4.8	268
March	175	6	5	5.6	347
April	10,020	678	6	334	19,870
May	9,144	602	10	295	18,140
June	15,672	769	71	522	31,080
July	16,682	765	301	538	33,090
August	11,050	482	190	356	21,920
September	10,187	516	140	340	20,210
Water year 1945-46	77,704.5	769	4	213	154,100

Note.- Recorder not operating Oct. 22 to Apr. 5, May 12, 13, 30; discharge computed on basis of 4 discharge measurements, commissioner's estimates of discharge, occasional staff-gage readings, and time of gate changes.

Sevier River above Clear Creek, near Sevier, Utah

Location.- Water-stage recorder, lat. 38°34'20", long. 112°15'25", in NW¼NE¼ sec. 5, T. 26 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 1946. May 1911 to September 1923 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.

Average discharge.- 11 years (1912-16, 1939-46), 310 second-feet.

Extremes (regulated).- Maximum discharge during year, 792 second-feet July 1 (gage height, 3.07 feet); minimum daily, 24 second-feet Dec. 19, 20, Apr. 4.
1911-29, 1939-46: Maximum discharge, 2,800 second-feet during last week in May 1922, computed on basis of records for station near Marysvale; minimum, 10 second-feet Nov. 27, 1919 (including flow of Clear Creek).

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation. Flow regulated by Piute and Otter Creek Reservoirs.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126	61	72	33		30	26	626	86	780	347	376
2	131	61	72	32		31	26	616	126	786	312	414
3	183	60	72	*34		31	26	605	131	727	282	467
4	180	61	b70	33		32	24	584	250	621	257	500
5	183	61	b35	31		31	26	564	495	605	293	486
6	183	63	b30	31		31	26	559	574	626	297	476
7	160	63	b29	27		29	72	564	610	654	297	472
8	154	63	b28	b26		29	286	600	605	704	355	476
9	160	63	b28	b25		27	297	605	590	721	401	495
10	260	63	b28	b25	a30	27	236	600	584	721	440	495
11	271	63	b28	b25		27	220	514	610	721	490	462
12	246	63	b28	b25		30	210	154	676	721	462	440
13	183	63	b26	b25		32	220	103	721	648	392	427
14	146	70	b26	b25		33	220	88	715	600	384	418
15	141	*74	b26	b25		33	223	126	664	564	380	368
16	138	74	b26	b26		32	275	144	626	519	335	304
17	138	77	b26	b27		30	397	204	569	564	293	286
18	119	82	b26	b27		30	510	236	637	605	320	260
19	90	75	b24	b28		30	559	268	659	616	363	233
20	86	74	b24	b29	*30	33	519	316	654	600	410	230
21	86	72	b25	b30	b30	33	467	316	590	564	418	230
22	82	75	b27	b30	30	31	486	312	534	524	472	201
23	69	72	b29	b30	31	29	495	359	554	458	444	189
24	36	72	b32	b30	34	28	500	368	569	422	418	220
25	64	72	b32	b30	31	29	500	372	564	414	449	268
26	63	72	b32	b30	29	29	544	324	564	376	440	278
27	63	72	b32		34	30	664	320	574	343	431	275
28	63	74	32		30	30	681	328	654	343	414	293
29	61	74	35	a30	-	29	659	240	687	368	380	368
30	61	75	35		-	29	648	99	721	380	363	376
31	61	-	34		-	26	-	78	-	376	355	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,017	271	61	130	7,970
November	2,064	82	60	68.8	4,090
December	1,069	72	24	34.5	2,120
Calendar year 1945	81,821	727	24	224	162,300
January	889	34	-	28.7	1,760
February	849	34	-	30.3	1,680
March	931	33	26	30.0	1,850
April	10,042	681	24	335	19,920
May	11,192	626	78	361	22,200
June	16,593	721	86	553	32,910
July	17,671	786	343	570	35,050
August	11,694	490	257	377	23,190
September	10,783	500	189	359	21,390
Water year 1945-46	87,794	786	-	241	174,100

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station below Piute Dam, near Marysvale.
b Stage-discharge relation affected by ice.

Sevier River near Sigurd, Utah

Location.- Water-stage recorder, lat. 38°52', long. 111°57', in SW¼ 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.- 3,340 square miles.

Records available.- July to September 1912, July 1914 to September 1946.

Average discharge.- 32 years (1914-46), 115 second-feet.

Extremes (regulated).- Maximum discharge during year, 256 second-feet Apr. 10 (gage height, 2.47 feet); minimum daily, 1 second-foot July 25-28, Aug. 5, 12.
1914-46: Maximum discharge, 2,400 second-feet May 30, 1922 (gage height, 8.1 feet, datum then in use), from rating curve extended above 600 second-feet or basis of maximum discharge for other Sevier River stations; practically no flow (seepage only) when Rockyford Reservoir gates are closed.

Remarks.- Records good. Extreme low flow during irrigation season represents seepage and return flow from canals. Flow regulated by dams and reservoirs above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	131	107	123	152	123	156	127	5	135	7	2	2
2	123	107	123	145	122	152	118	5	105	7	2	2
3	118	107	120	141	123	152	116	5	75	5	2	2
4	112	107	123	139	123	156	114	5	60	4	2	2
5	105	105	131	139	121	160	104	5	23	4	1	2
6	98	105	133	139	133	160	67	5	9	2	2	2
7	104	105	133	139	135	160	64	5	10	2	2	3
8	102	105	135	154	135	158	97	5	8	2	2	3
9	86	129	135	156	127	152	167	5	7	2	2	2
10	78	137	135	133	131	149	234	5	7	2	2	3
11	93	133	125	127	131	154	242	5	7	2	2	2
12	114	129	114	123	131	149	212	7	6	2	1	2
13	135	123	123	123	129	149	192	98	7	2	2	3
14	135	121	118	118	125	160	121	105	7	2	2	3
15	120	120	118	116	125	172	65	76	7	2	2	3
16	125	118	123	116	129	178	26	65	7	2	2	3
17	135	116	123	120	133	183	10	64	7	2	2	2
18	139	116	123	120	135	181	9	60	6	2	2	3
19	139	114	123	121	135	176	9	55	6	2	2	3
20	135	114	121	123	143	172	11	44	6	2	2	3
21	131	116	125	123	152	172	35	38	6	2	2	3
22	156	114	129	123	154	174	37	34	7	2	2	3
23	149	114	133	123	160	172	32	29	7	2	2	3
24	131	116	143	129	163	88	20	9	6	2	2	3
25	133	118	152	131	167	5	12	4	6	1	2	5
26	118	120	154	135	169	7	12	10	5	1	2	4
27	139	118	149	123	165	14	11	20	5	1	2	3
28	123	118	149	123	163	100	11	34	6	1	2	3
29	116	120	154	133	-	147	8	60	7	2	2	3
30	111	120	160	129	-	139	5	102	7	2	2	2
31	109	-	158	120	-	133	-	147	-	2	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,743	156	78	121	7,420
November	3,492	137	105	116	6,930
December	4,108	160	114	133	8,150
Calendar year 1945	31,091.6	304	3.0	85.2	61,660
January	4,036	156	116	130	8,010
February	3,883	169	121	139	7,700
March	4,380	183	5	141	8,690
April	2,288	242	5	76.3	4,540
May	1,116	147	4	36.0	2,210
June	567	135	5	18.9	1,120
July	75	7	1	2.4	149
August	60	2	1	1.9	119
September	82	5	2	2.7	163
Water year 1945-46	27,830	242	1	76.2	55,200

Sevier River below San Pitch River, near Gunnison, Utah

Location.- Water-stage recorder, lat. 39°09', long. 111°52', in NE¼ 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 1946.

Average discharge.- 29 years, 228 second-feet.

Extremes (regulated).- Maximum discharge during year, 495 second-feet Mar. 16 (gage height, 3.12 feet); minimum, 36 second-feet July 22 (gage height, 1.07 feet).
1917-46: Maximum discharge, 2,620 seccnd-feet June 1, 1922 (gage height, 5.68 feet, present datum); minimum daily, 8 second-feet July 13-17, Sept. 6, 1934.

Remarks.- Records good. Flow regulated by 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	247	250	331	331	264	314	316	171	328	60	91	76
2	254	257	311	322	272	336	328	144	325	63	87	76
3	252	262	286	316	275	395	339	146	289	63	87	73
4	244	264	297	331	275	419	368	144	228	62	87	80
5	240	270	297	336	272	422	360	146	181	62	84	79
6	232	267	305	328	272	363	348	161	161	63	79	78
7	223	272	308	314	280	360	302	159	147	63	56	79
8	218	283	308	305	283	368	305	146	118	63	60	95
9	220	272	300	311	280	368	336	142	85	66	62	99
10	216	283	286	305	280	389	380	149	78	64	62	101
11	223	297	286	283	283	401	422	216	88	66	60	99
12	237	294	286	272	286	404	422	328	87	64	66	103
13	262	291	275	283	280	371	386	254	82	62	69	101
14	286	294	264	275	278	432	380	257	64	66	69	106
15	300	294	262	275	278	489	339	242	66	69	64	111
16	300	300	260	275	283	479	278	216	64	67	84	115
17	314	294	267	270	286	479	244	205	62	70	67	113
18	314	289	272	270	294	479	220	198	63	80	66	103
19	311	272	270	267	302	483	220	188	64	85	99	110
20	305	273	264	272	308	476	223	183	66	62	98	111
21	302	270	264	272	314	435	240	181	67	60	118	106
22	300	262	286	267	334	398	254	171	78	53	125	104
23	314	291	319	270	339	366	250	171	90	57	123	106
24	305	302	331	275	345	348	223	188	79	59	131	106
25	286	308	339	286	351	267	218	177	79	64	129	108
26	270	311	339	286	342	211	207	157	78	84	129	106
27	262	314	339	275	331	205	211	157	72	85	125	106
28	267	314	336	272	319	232	220	183	63	84	120	113
29	260	316	339	283	-	322	200	272	59	88	103	111
30	254	325	339	280	-	345	190	302	57	111	99	116
31	247	-	336	270	-	316	-	302	-	103	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,265	314	216	267	16,390
November	8,593	325	250	286	17,040
December	9,302	339	260	300	18,450
Calendar year 1945	90,039	508	73	247	178,600
January	8,977	336	267	290	17,810
February	8,306	351	264	297	16,470
March	11,672	489	205	377	23,150
April	8,729	422	190	291	17,310
May	6,056	328	142	195	12,010
June	3,368	328	57	112	6,680
July	2,168	111	53	69.9	4,300
August	2,778	131	56	89.6	5,510
September	2,990	116	73	99.7	5,930
Water year 1945-46	81,204	489	53	222	161,000

Sevier Bridge Reservoir near Juab, Utah

Location.- Staff gage, lat. 39°22', long. 112°02', in NW¼ 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 1946.

Extremes.- Maximum contents during year, 236,000 acre-feet Mar. 6, 7 (gage height, 80.0 feet); minimum, 106,600 acre-feet Sept. 27-30 (gage height, 62.7 feet).
1914-46: Maximum contents, 251,000 acre-feet Apr. 19, 20, 1922 (gage height, 80.0 feet), from former capacity table; no contents at times during 1927-28, 1930-36.

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 flashboard on spillway). No dead storage. Figures given herein represent total contents. Water is used for irrigation. Gage read to half-tenths between 7 and 8 a.m. daily; contents are as of that time.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	153,400	169,400	184,200	202,100	217,500	231,800	231,800	217,500	196,500	161,600	133,800	116,000
2	154,100	170,100	185,000	203,000	218,500	232,800	231,200	216,400	197,000	160,100	133,400	115,200
3	154,900	170,900	185,900	203,000	218,500	232,800	231,800	215,400	197,400	158,600	133,100	114,600
4	154,900	170,900	185,900	203,900	218,500	233,900	231,800	214,000	197,000	156,700	132,500	114,100
5	155,600	171,800	185,900	203,900	219,500	234,900	231,200	213,000	196,500	155,600	131,900	113,100
6	155,600	171,800	186,700	204,800	219,500	236,000	231,200	211,600	194,200	154,100	131,300	112,600
7	156,300	172,600	187,600	205,800	220,500	236,000	230,700	210,600	192,900	153,000	130,100	112,000
8	157,100	173,400	187,600	205,800	221,500	234,900	230,700	209,600	192,000	151,600	129,200	111,200
9	157,100	174,200	188,500	206,700	221,500	234,900	230,700	208,700	191,200	149,800	128,000	110,800
10	157,800	174,200	189,400	206,700	222,500	233,900	231,800	207,700	190,800	148,400	126,800	110,600
11	158,600	175,000	189,400	206,700	222,500	233,900	232,800	206,700	190,300	147,400	125,700	110,300
12	158,600	175,000	189,400	206,700	223,500	232,800	233,400	206,700	189,400	146,000	124,800	110,300
13	159,300	175,000	190,300	208,700	223,500	232,800	233,400	206,700	188,500	144,900	124,200	110,300
14	160,100	175,800	190,300	208,700	223,500	232,800	233,900	206,700	188,000	143,800	123,700	110,300
15	160,800	176,600	190,300	209,600	224,500	233,900	233,900	206,700	187,600	142,900	122,800	110,300
16	160,800	176,600	192,000	210,600	224,500	232,400	234,900	206,700	186,700	142,200	122,000	110,000
17	161,600	176,600	192,000	210,600	225,500	234,900	234,900	206,700	185,000	141,200	121,200	109,800
18	162,300	177,400	192,900	210,600	225,500	233,900	234,900	206,700	184,200	140,200	120,400	109,400
19	163,100	178,300	192,900	211,600	226,500	233,900	233,900	205,800	182,500	139,200	119,800	108,900
20	163,100	177,400	192,900	211,600	226,500	233,900	232,300	205,300	181,200	138,200	119,300	108,600
21	163,900	178,300	193,800	212,500	226,500	233,900	231,800	204,400	179,900	137,900	118,800	108,400
22	164,700	179,100	194,700	212,500	227,600	232,800	230,200	203,000	178,700	137,600	118,500	108,000
23	164,700	179,900	194,700	213,500	228,600	232,800	229,700	201,600	176,600	137,600	118,500	107,500
24	165,400	180,800	196,500	213,500	229,700	231,800	228,600	200,200	174,200	136,900	118,200	107,300
25	166,200	180,800	197,400	214,500	229,700	231,800	227,600	199,300	173,000	136,300	118,200	107,100
26	167,000	180,800	198,300	214,500	230,700	231,800	225,500	197,400	170,900	135,600	118,200	106,800
27	167,000	181,600	198,300	215,400	230,700	231,800	224,000	195,600	169,000	135,300	118,000	106,600
28	167,800	182,500	199,300	215,400	231,800	231,800	223,000	195,200	167,000	135,000	117,700	106,600
29	168,600	182,500	200,200	215,400	-	231,800	221,500	195,200	165,400	134,400	117,700	106,600
30	168,600	183,300	200,200	216,400	-	232,800	218,500	195,600	163,500	133,800	117,200	106,600
31	169,400	-	201,100	217,500	-	232,300	-	196,000	-	133,800	116,700	-

Monthly gage height and contents, water year October 1945 to September 1946

Date	Gage height (feet)	Contents (acre-feet)	Change in contents (during month) (acre-feet)
Oct. 1	70.7	153,400	+16,000
Nov. 1	72.8	169,400	+14,800
Dec. 1	74.6	184,200	+17,900
Calendar year 1945	-	-	+38,200
Jan. 1	76.6	202,100	+15,400
Feb. 1	78.2	217,500	+14,300
Mar. 1	79.6	231,800	0
Apr. 1	79.6	231,800	-14,300
May 1	78.2	217,500	-21,000
June 1	76.0	196,500	-34,900
July 1	71.8	161,600	-27,800
Aug. 1	67.8	133,800	-17,800
Sept. 1	64.65	116,000	-9,200
Oct 1	62.75	106,800	-
Water year 1945-46	-	-	-46,600

Sevier River near Juab, Utah

Location.- Water-stage recorder, lat. 39°22', long. 112°02', in NE¼ sec. 2, T. 17 S., R. 2 W., 1,600 feet downstream from Sevier Bridge Dam and 11 miles southwest of Juab.

Drainage area.- 5,120 square miles.

Records available.- September 1911 to September 1946.

Average discharge.- 35 years, 251 second-feet.

Extremes (regulated).- Maximum discharge during year, 1,150 second-feet Apr. 26 (gage height, 4.88 feet); minimum daily recorded, 26 second-feet Oct. 17, 18, Nov. 11. 1911-46: Maximum discharge, 2,140 second-feet June 2, 1922 (gage height, 8.50 feet); practically no flow at times when reservoir gates were closed.

Remarks.- Records good except those for periods of no gage-height record, which are fair. 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	28					413	934	102	952	154	385
2	58	28					413	790	248	938	238	385
3	54	28				a50	411	673	389	822	268	383
4	54	28					411	647	476	692	313	380
5	54	28				150	448	637	621	689	327	380
6	54	28				256	489	634	669	685	469	380
7	54	28				587	371	625	666	685	571	380
8	50	28				593	212	657	616	682	580	377
9	50	28				593	162	682	303	679	574	255
10	50	28				593	121	676	303	715	571	140
11	55	26				593	86	577	303	745	565	147
12	45	83				516	172	357	303	738	562	147
13	40	142				397	236	270	303	695	556	145
14	35	150				313	207	228	308	434	510	145
15	30	147	a30	a30	a40	355	128	220	346	431	477	145
16	28	145				531	231	220	447	460	468	145
17	26	145				577	338	220	641	477	454	145
18	26	147				593	394	322	762	477	411	240
19	28	147				590	486	513	759	394	332	324
20	28	147				590	644	609	755	319	313	300
21	28	104				593	731	669	752	278	236	270
22	28	30				590	804	766	814	225	197	270
23	28	30				590	762	825	916	276	182	268
24	28	30				485	725	902	942	346	135	268
25	28	30				346	800	898	952	346	152	187
26	28	30				273	945	878	949	346	172	126
27	28	30				254	963	702	974	343	172	109
28	28	32				190	952	454	974	377	205	102
29	28	32			-	90	978	192	967	257	259	76
30	28	32			-	215	945	102	960	147	311	44
31	28	-			-	416	-	102	-	147	346	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,185	58	26	38.2	2,350
November	1,939	150	26	64.6	3,850
December	930	-	-	30.0	1,840
Calendar year 1945	71,133	1,010	12	195	141,100
January	930	-	-	30	1,840
February	1,120	-	-	40	2,220
March	12,069	-	-	389	23,940
April	14,978	978	86	499	29,710
May	16,981	934	102	548	33,680
June	18,500	974	102	617	36,690
July	15,797	952	147	510	31,330
August	11,080	580	135	357	21,980
September	7,048	385	44	235	13,980
Water year 1945-46	102,557	978	26	281	203,400

a No gage-height record; discharge computed on basis of 2 discharge measurements and records for station near Lynndyl.

Sevier River near Lynndyl, Utah

Location.- Water-stage recorder, lat. 39°29', long. 112°24', in SE¼ sec. 27, T. 15 S., R. 5 W., 1½ miles downstream from highway bridge and 3½ miles southwest of Lynndyl.

Drainage area.- 6,270 square miles.

Records available.- April 1914 to October 1919. November 1942 to September 1946.

Extremes (regulated).- Maximum discharge during year, 748 second-feet Apr. 28 (gage height, 5.77 feet); minimum, 13 second-feet Feb. 9, 12 (gage height, 1.66 feet).
1914-19, 1942-46: Maximum daily discharge, 1,820 second-feet June 9, 1914, based on records at Leamington; minimum recorded, 9.6 second-feet Jan. 22, 1945.

Remarks.- Records good except those for period of ice effect, which are fair. Flow regulated by Sevier Bridge Reservoir (see p. 132). Several diversions for irrigation between reservoir and station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	92	39	36	26	16	249	688	82	666	193	174
2	88	91	38	*35	25	16	312	668	78	663	187	243
3	87	88	37	34	24	16	333	576	90	678	214	277
4	86	87	37	25	23	17	335	453	275	668	237	284
5	86	82	36	24	25	16	347	406	335	503	284	264
6	86	85	36	23	26	16	370	394	470	460	312	260
7	85	90	36	21	24	30	450	380	518	476	333	260
8	85	88	35	23	23	306	397	382	506	478	378	251
9	79	88	b35	24	26	394	262	392	488	473	373	251
10	74	87	b33	23	24	406	180	423	253	466	375	226
11	77	86	b35	25	23	414	160	428	157	458	382	92
12	82	87	b35	23	28	416	96	394	132	498	392	72
13	87	86	b33	25	28	404	74	224	115	500	390	51
14	84	130	b33	25	28	317	196	183	84	493	385	41
15	80	181	b33	26	27	232	214	153	69	331	387	36
16	78	187	b34	26	19	183	147	142	76	258	342	36
17	77	191	b35	28	26	351	130	130	102	243	333	36
18	74	191	b34	27	21	406	284	109	243	266	299	54
19	71	194	b33	26	18	430	326	104	423	286	288	64
20	72	193	b32	27	18	436	404	234	440	256	232	157
21	73	*193	b45	26	18	430	533	397	440	153	198	193
22	74	193	63	26	18	438	618	426	440	149	181	210
23	76	147	70	26	20	440	656	508	460	113	125	210
24	76	98	63	24	28	428	663	560	578	103	120	212
25	77	69	55	23	48	385	620	648	606	181	104	222
26	85	43	48	25	30	281	630	670	630	202	101	228
27	91	41	43	24	18	194	694	673	630	193	82	185
28	87	39	41	25	16	153	738	608	640	203	80	162
29	85	38	39	23	-	144	722	428	666	230	60	160
30	85	38	38	22	-	85	717	228	668	283	78	140
31	86	-	37	24	-	45	-	105	-	214	139	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,520	91	71	81.3	5,000
November	3,303	194	38	110	6,550
December	1,241	70	32	40.0	2,460
Calendar year 1945	62,193	813	14	170	123,400
January	794	36	21	25.6	1,570
February	678	48	16	24.2	1,340
March	7,845	440	16	253	15,560
April	11,857	738	74	395	23,520
May	12,114	688	104	391	24,030
June	10,694	668	69	356	21,210
July	11,179	678	106	361	22,170
August	7,584	392	60	245	15,040
September	5,051	284	36	168	10,020
Water year 1945-46	74,860	738	16	205	148,500

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

East Fork Sevier River near Kingston, Utah

Location.- Water-stage recorder, lat. 38°12', long. 112°09', in SW¼NW¼ 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 upstream from mouth.

Drainage area.- 1,260 square miles.

Records available.- March 1913 to September 1946. May to September 1912 at site 2½ miles downstream, below all diversions.

Average discharge.- 33 years, 89.9 second-feet.

Extremes (regulated).- Maximum discharge during year, 397 second-feet Apr. 20 (gage height, 2.56 feet); minimum, 3.8 second-feet Jan. 7.
1913-46: Maximum discharge, 2,030 second-feet May 12, 1941 (gage height, 5.05 feet); minimum, that of Jan. 7, 1946.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above and below station for irrigation. Station is above diversions in vicinity of Kingston. Flow regulated by Otter Creek Reservoir (see p. 136).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a15	16	19	a19		22	a92	20	114	101	267	59
2	a15	16	17	a18		22	a99	25	114	136	210	58
3	a15	15	18	a18		22	a105	63	112	275	204	57
4	a15	16	21	*18		22	a108	67	109	275	193	99
5	a15	16	20	18		23	a110	64	109	275	195	217
6	15	16	21	18		22	a113	62	108	275	193	217
7	16	16	19	17		23	a115	62	108	275	191	217
8	15	16		16		23	a119	59	109	272	188	217
9	15	16		16		24	a123	62	112	285	188	217
10	17	15			a17	24	a126	135	112	267	188	220
			b17									
11	18	15				24	a101	138	115	264	191	220
12	27	16				24	a94	130	115	285	191	222
13	22	16				25	95	120	110	267	188	222
14	20	16				28	116	112	109	264	186	222
15	19	16		a16		27	153	109	108	261	184	220
16	23	*16				31	191	109	108	258	184	224
17	22	16				32	269	103	106	258	186	234
18	19	15				30	261	105	108	258	184	232
19	18	14			a18	31	331	105	106	258	156	230
20	17	14			a19	33	360	99	105	264	112	177
21	17	16			20	33	363	94	106	267	112	102
22	17	23	a17		22	33	338	86	105	267	112	102
23	20	20			22	31	299	87	103	267	98	101
24	18	18			24	66	210	101	102	281	74	101
25	17	14		a17	24	72	130	101	a43	281	68	102
26	16	16			23	74	130	96	a16	281	67	102
27	16	16			22	76	144	94	a50	275	64	102
28	16	16			22	82	144	103	101	284	64	103
29	16	16			-	86	124	109	99	296	63	103
30	16	18			-	a87	88	109	99	305	61	103
31	16	-			-	a90	-	114	-	305	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	543	27	15	17.5	1,080
November	485	23	14	16.2	962
December	543	-	-	17.5	1,080
Calendar year 1945	18,454	261	-	50.6	36,600
January	522	-	-	16.8	1,040
February	522	-	-	18.6	1,040
March	1,242	90	22	40.1	2,460
April	5,051	363	88	168	10,020
May	2,843	138	20	91.7	5,640
June	3,021	115	16	101	5,990
July	8,140	305	101	263	16,150
August	4,621	267	59	149	9,170
September	4,802	234	57	160	9,520
Water year 1945-46	32,335	363	-	88.6	64,150

a No gage-height record; discharge computed on basis of weather records and unpublished records of release from Otter Creek Reservoir.
b Stage-discharge relation affected by ice.

Otter Creek Reservoir near Antimony, Utah
(Formerly published as Otter Creek Reservoir near Coyote, Utah)

Location.- Staff gage, lat. 38°10'15", long. 112°00'00", in NW¼ sec. 28, T. 30 S., R. 2 W., near spillway on right side of dam on Otter Creek, 5 miles northwest of Antimony and 12 miles east of Kingston.

Records available.- January 1914 to September 1914, October 1945 to September 1946. 1915, 1934-45 available in files of Salt Lake City district office, Geological Survey.

Extremes.- Maximum contents observed during year, 55,000 acre-feet May 1 (gage height, 37.0 feet); minimum observed, 15,720 acre-feet Sept. 20 (gage height, 17.8 feet). 1914-15, 1934-46: Maximum contents observed, that of May 1, 1946; minimum, 400 acre-feet Aug. 1, Sept. 1, 20, Oct. 1, 1934.

Remarks.- Reservoir was formed in 1891 by a 40-foot earth-fill, rock-faced dam, 5 feet was added to height in 1901. Capacity, 52,500 acre-feet between gage height zero (bottom of outlet gate) and gage height 36.0 feet (top of flashboards on spillway). Spillway crest is at gage height 33.5 feet. Reservoir stores water from Otter Creek and water diverted from East Fork Sevier River, for irrigation in Sevier River Basin.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29,280	33,400	37,000	40,400	44,000	48,320	53,500	55,000	50,500	44,480	28,560	22,260
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	30,200	34,600	38,240	41,600	44,960	50,000	54,000	54,500	48,320	39,200	25,500	19,380
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	47,360	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	51,750	-	-	-	-	-	-
20	32,000	35,600	38,960	42,800	46,160	52,000	54,750	52,750	46,400	34,200	22,260	15,720
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	52,750	54,500	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	25.6	29,280	+4,120
Nov. 1	27.7	33,400	+3,600
Dec. 1	29.5	37,000	+3,400
Calendar year 1945	-	-	+13,640
Jan. 1	31.0	40,000	+3,600
Feb. 1	32.5	44,000	+4,320
Mar. 1	34.3	48,320	+5,180
Apr. 1	36.4	53,500	+1,500
May 1	37.0	55,000	-4,500
June 1	35.2	50,500	-6,020
July 1	32.7	44,480	-15,920
Aug. 1	25.2	28,560	-6,300
Sept. 1	21.7	22,260	-8,960
Oct. 1	16.8	13,300	-
Water year 1945-46	-	-	-15,980

Clear Creek at Sevier, Utah

Location.- Water-stage recorder, lat. 38°34'55", long. 112°15'35", in SW¼NE¼ sec. 32, T. 25 S., R. 4 W., 400 feet upstream from bridge on U. S. Highway 89, 1,000 feet upstream from mouth and 0.3 mile south of Sevier. Prior to Sept. 24, 1946, at site 400 feet downstream.

Drainage area.- 169 square miles.

Records available.- February 1912 to September 1919 and October 1940 to September 1946 in reports of Geological Survey. April 1934 to September 1946 in reports of Sevier River water commissioner.

Average discharge.- 11 years (1912-17, 1940-46), 34.2 second-feet.

Extremes.- Maximum discharge during year, 135 second-feet Apr. 28 (gage height, 1.70 feet); minimum, 0.4 second-foot July 13.
1912-19, 1940-46: Maximum discharge observed; 487 second-feet Aug. 7, 1941 (gage height, 4.05 feet); no flow Aug. 26, 1913.

Remarks.- Records good except those for periods of doubtful or no gage-height record, which are fair. Practically entire flow is diverted above station each year during latter part of irrigation season. During water year 1946 a diversion which had previously diverted from Sevier River below Clear Creek was transferred so as to divert from Clear Creek between station and mouth.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		19	21	18			55	87	55	27	2.4	3.9
2		18	14	18			50	75	50	25	1.5	3.6
3	8.5	18	13	18			41	71	48	18	5.2	3.3
4		18	19	18			42	72	55	16	5.5	3.1
5	8.0	17	22	18		20	45	78	62	18	4.9	2.9
6	7.6	15	19	18			50	80	63	18	7.3	2.8
7	7.0	19	21	14			52	87	55	18	3.6	2.6
8	6.7	14	17	18	15		48	92	48	20	4.1	2.5
9	6.7	11	16	16		22	45	92	45	18	3.6	2.4
10	12	17	12	11		22	44	92	42	14	4.1	2.3
11	21	18	17			22	44	94	38	7.0	5.2	2.2
12	20	16	17			23	52	86	38	6.3	6.7	2.0
13	18	18	13			23	56	75	38	2.2	4.9	2.0
14	17	14	13			23	72	67	43	1.1	18	2.0
15	16	20	14			23	68	64	41	3.8	14	1.7
16	20	19	16			22	74	64	41	8.3	13	1.4
17	21	19	18			23	84		41	8.3	9.0	1.4
18	21	18	18		17	24	92	70	37	9.3	13	1.5
19	20	17	19			25	105		31	6.0	13	2.0
20	19	21	19			44	105		24	2.6	9.0	2.6
21	19	11	21	15		35	113	80	22	1.7	6.0	2.2
22	20	14	22			33	110	80	27	2.9	5.7	2.9
23	21	19	22			33	107	92	23	4.6	13	2.4
24	19	20	20			36	107	86	24	8.4	9.7	2.2
25	21	23	20		20	33	107	76	15	9.0	8.0	2.3
26	19	18	19			31	104	74	10	7.6	7.0	2.5
27	19	17	19			41	110	72	15	7.3	6.0	2.5
28	19	19	22			50	120	71	24	4.9	5.6	2.4
29	19	21	21		-	50	107	68	26	3.8	5.0	2.5
30	18	21	21		-	51	98	66	25	4.4	4.6	2.5
31	19	-	17		-	56	-	59	-	4.1	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	488.0	21	6.7	15.7	968
November	529	23	11	17.6	1,050
December	562	22	12	18.1	1,110
Calendar year 1945	18,454	289	6.7	50.6	36,600
January	482	-	-	15.5	956
February	470	-	-	16.8	932
March	905	56	-	29.2	1,800
April	2,307	120	41	76.9	4,580
May	2,380	94	59	76.8	4,720
June	1,106	63	10	36.9	2,190
July	305.6	27	1.1	9.86	606
August	222.8	18	1.5	7.19	442
September	72.6	3.9	1.4	2.42	144
Water year 1945-46	9,830.0	120	1.1	26.9	19,500

Note.- No gage-height record Oct. 1-4, Feb. 21 to Mar. 19, May 17-22, Aug. 25 to Sept. 11; doubtful gage-height record Jan. 11 to Feb. 20; discharge computed on basis of 2 discharge measurements and weather records.

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Salina Creek at Salina, Utah

Location.- Water-stage recorder and concrete control, lat. 38°57', long. 111°52', in NW¼ sec. 25, T. 21 S., R. 1 W., at Salina, 150 feet upstream from bridge on U. S. Highway 89, and three-quarters of a mile upstream from mouth.

Drainage area.- 298 square miles.

Records available.- April 1914 to September 1919, November 1942 to September 1946. July 1900 to April 1901 at site 5 miles upstream, published as Salina Creek near Salina.

Extremes.- Maximum discharge during year, 558 second-feet Aug. 15 (gage height, 3.02 feet); minimum, 0.1 second-foot Aug. 9.
1914-19, 1942-46: Maximum discharge, 804 second-feet Aug. 7, 1943 (gage height, 3.44 feet), from rating curve extended above 400 second-feet; minimum, that of Aug. 9, 1946.

Remarks.- Records good except those for periods of ice effect or doubtful or no gage-height record, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	12		23		16	40	37	42	2.4	1.5	0.4
2	1.5	12		*23		21	36	36	32	1.9	1.7	.2
3	*1.5	11		23		25	29	47	24	1.1	1.5	.2
4	1.5	11		18		24	28	53	16	1.1	.9	.2
5	1.3	11		18		22	31	66	11	1.1	.5	.4
6	1.3	11		17		18	40	64	5.5	1.1	..7	.2
7	.9					17	39	56	4.0	.9	.3	.2
8	1.1					15	47	43	5.0	1.1	.2	.3
9	1.3					16	49	39	6.5	.9	.2	.3
10	1.3					18	43	50	5.5	1.3	.2	.2
		b7	a7		b18							
11	1.5					18	24	78	3.0	1.7	.4	.3
12	1.3				b15	a18	26	56	3.0	1.3	1.9	.7
13	1.1					a17	36	56	2.4	1.9	.9	.7
14	1.3	(*)				a17	60	45	2.4	.9	.9	.4
15	1.1					a16	42	33	2.7	1.3	41	.5
16	5.5					16	64	17	2.7	1.3	7.0	.5
17	2.2					14	d76	13	2.7	1.3	.9	.9
18	1.3					20	97	12	3.0	.7	1.5	1.1
19	1.3				(*)	23	122	12	3.3	.5	.7	.7
20	2.7				20	48	122	9.4	3.6	.9	7.2	1.1
21	11				24	32	146	16	2.4	.9	9.3	.7
22	10	a7			31	24	149	9.4	1.3	5.2	3.5	.7
23	11				32	23	135	14	1.1	1.9	.4	1.3
24	10				31	29	109	16	.7	1.7	.9	1.1
25	10				b18 39	23	127	8.7	.9	.9	.5	.7
			a12									
26	11				29	18	104	8.7	.9	.9	.5	.5
27	10				20	36	124	8.7	1.3	.9	.4	.5
28	10				21	48	116	36	.7	.9	.2	.7
29	9.4				-	37	97	85	.9	1.3	.4	.7
30	5.0				-	33	99	37	1.3	5.5	.4	1.3
31	7.0	-			-	37	-	39	-	1.9	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	136.7	11	0.9	4.41	271
November	236	12	-	7.87	468
December	272	-	-	8.77	540
Calendar year 1945	9,683	442	.4	23.5	19,200
January	536	23	-	17.3	1,060
February	589	39	-	21.0	1,170
March	739	48	14	23.8	1,470
April	2,256	149	24	75.2	4,470
May	1,098.9	83	8.7	33.4	2,180
June	191.8	42	.7	6.39	380
July	46.7	5.5	.5	1.51	93
August	86.9	41	.2	2.80	172
September	17.7	1.3	.2	.59	35
Water year 1945-46	6,206.7	149	.2	17.0	12,310

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations on nearby streams.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of weather records and records for stations on nearby streams.

Chalk Creek near Fillmore, Utah

Location.- Water-stage recorders, lat. 38°58', long. 112°18', in NE¼ sec. 28, T. 21 S., R. 4 W., 1 mile east of Fillmore and 2½ miles downstream from South Fork.

Drainage area.- 60 square miles.

Records available.- March 1944 to September 1946. May to July 1914 at site 1½ miles upstream.

Extremes.- Maximum discharge during year, 142 second-feet Apr. 27; minimum daily, 8.4 second-feet Jan. 12.
1914, 1944-46: Maximum discharge, 490 second-feet May 9, 1914 (gage height, 3.40 feet, site and datum then in use); minimum daily, that of Jan. 12, 1946.

Remarks.- Records good. Records include flow of Fillmore Canal which diverts on left bank at flood-control dam 400 feet upstream. During low-water periods flow is diverted 2 miles upstream and carried in a lined ditch to head of Fillmore Canal. One small irrigation diversion above gage.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	14	14	12	11		35	120	61	24	13	12
2	15	14	12	12	13		36	110	67	22	13	11
3	14	13	11	13	13	a14	33	106	71	22	13	11
4	14	13	13	13	13		32	107	74	22	13	11
5	14	13	13	13	10	14	34	108	73	21	14	11
6	14	13	13	13	13	14	36	112	71	21	15	11
7	14	15	13	13	13	14	41	111	68	20	14	11
8	14	13	13	13	12	14	41	107	63	19	13	11
9	14	13	12	11	11	14	41	107	58	18	13	11
10	16	15	12	9.5	13	13	39	108	55	18	15	11
11	17	15	13	11	12	15	39	103	52	18	21	11
12	15	15	13	8.4	11	15	43	90	49	18	22	11
13	16	14	b9.5	9.7	11	16	51	80	46	18	17	11
14	15	14	b9.0	11	11	17	65	68	42	17	16	14
15	14	14	b11	12	11	16	65	59	40	17	19	13
16	14	14	12	13	12	16	73	59	38	15	17	11
17	14	14	13	b13	12	16	85	61	37	16	14	11
18	14	14	12	b13	12	17	99	60	36	16	14	11
19	14	13	10	b13	12	18	110	61	34	16	13	11
20	14	13	14	b12		23	122	60	33	15	14	11
21	14	10	14	b10		22	132	60	32	15	14	11
22	14	12	14	b11		21	132	58	30	16	17	10
23	14	13	14	b11		21	128	57	30	16	15	10
24	14	14	13	b12	a13	22	132	54	29	16	16	10
25	13	13	13	b12		22	132	45	28	16	14	10
26	13	13	13	9.1		22	136	44	26	16	13	10
27	13	13	13	11		23	139	46	25	14	13	9.7
28	13	13	13	12		25	138	53	24	14	12	9.7
29	13	13	13	13	-	29	132	55	24	14	12	9.7
30	13	14	13	9.5	-	30	130	53	24	15	12	10
31	14	-	12	11	-	32	-	57	-	14	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	439	17	13	14.2	871
November	404	15	10	13.5	801
December	387.5	14	9.0	12.5	769
Calendar year 1945	16,506.4	331	9.0	45.2	32,740
January	360.2	13	8.4	11.6	714
February	343	-	11	12.2	680
March	577	32	13	18.6	1,140
April	2,451	139	32	81.7	4,860
May	2,379	120	44	76.7	4,720
June	1,340	74	24	44.7	2,660
July	539	24	14	17.4	1,070
August	453	22	12	14.6	899
September	326.1	14	9.7	10.9	647
Water year 1945-46	9,998.8	139	8.4	27.4	19,830

a No gage-height record; discharge computed on basis of weather records and records for nearby stations.
b Stage-discharge relation affected by ice.

Beaver River near Beaver, Utah

Location.- Water-stage recorder, lat. 38°17', long. 112°34', in SW¼SW¼ sec. 17, T. 29 S., R. 6 W., at Fishlake National Forest boundary, three-quarters of a mile downstream from Bakers Canyon and 4½ miles east of Beaver.

Drainage area.- 82 square miles.

Records available.- June to September 1906, March 1914 to September 1946.

Average discharge.- 32 years (1914-46), 56.4 second-feet.

Extremes.- Maximum discharge during year, 203 second-feet Apr. 26 (gage height, 2.91 feet); minimum, 12 second-feet Mar. 8.
1914-46: 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, Nov. 30, 1939.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. No diversion above station for irrigation. Water diverted for hydroelectric power, but returned to stream above station. Some regulation by power plants and several small reservoirs.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	27	25	a25	b21	23	31	178	102	41	30	21
2	27	a26	b24	a25	b21	23	30	172	100	38	28	21
3	26	a25	b22	a25	21	21	25	168	110	36	25	21
4	26	22	b24	a25	22	21	28	152	125	36	26	21
5	27	28	b26	a24	b22	21	26	145	127	37	31	21
6	26	26	25	22	b22	21	35	182	123	36	50	21
7	26	26	22	a25	b22	21	35	185	114	34	33	21
8	26	23	27	*25	b22	19	38	178	108	33	27	21
9	28	27	b24	b23	b22	21	32	154	100	32	27	20
10	32	22	b22	b22	b22	22	29	123	94	31	29	22
11	36	24	b23	b22	22	22	34	132	96	31	29	21
12	38	a23	24	b22	b22	23	43	129	100	31	33	22
13	30	a24	b21	b22	b22	24	51	117	98	32	30	22
14	23	a26	b22	b22	b22	24	66	110	94	32	30	22
15	29	a29	b23	b22	b22	24	57	106	90	32	26	22
16	29	a29	b24	b22	20	23	70	102	86	29	29	20
17	28	a27	b24	b22	21	22	80	94	80	29	27	22
18	27	24	b24	22	22	22	90	92	77	31	25	22
19	26	26	b21	22	21	26	102	98	75	31	24	21
20	25	*25	b22	22	25	27	102	102	70	30	26	22
21	26	b21	b22	b22	26	26	110	102	66	28	25	22
22	29	b22	b22	b22	25	25	129	104	63	30	31	22
23	28	23	22	22	25	23	147	100	60	30	31	22
24	24	23	23	22	22	25	165	94	58	30	26	22
25	25	22	23	21	22	25	192	88	57	29	25	22
26	26	25	24	b21	*23	24	188	84	56	29	24	22
27	27	24	a25	b21	24	26	185	86	54	28	25	22
28	26	24	a25	b21	21	32	175	88	52	26	22	21
29	26	23	a25	22	-	29	163	88	50	29	22	21
30	27	23	25	b21	-	30	175	88	42	36	24	20
31	26	-	a25	b21	-	30	-	100	-	35	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	853	38	23	27.5	1,690
November	739	29	21	24.6	1,470
December	730	27	21	23.5	1,450
Calendar year 1945	21,675	285	18	59.4	43,010
January	697	25	21	22.5	1,380
February	624	26	20	22.3	1,240
March	745	32	19	24.0	1,480
April	2,633	192	25	87.8	5,220
May	3,741	185	84	121	7,420
June	2,527	127	42	84.2	5,010
July	992	41	26	32.0	1,970
August	862	50	22	27.8	1,710
September	642	22	20	21.4	1,270
Water year 1945-46	15,785	192	19	43.2	31,310

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for nearby stations.
b Stage-discharge relation affected by ice.

Beaver River at Adamsville, Utah

Location.- Water-stage recorder, lat. 38°16', long. 112°48', in S½ sec. 30, T. 29 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. Prior to May 29, 1946, at site 75 feet downstream, at datum 0.5 foot higher.

Drainage area.- 272 square miles.

Records available.- December 1913 to September 1936, October 1937 to September 1946.

Average discharge.- 30 years (1914-36, 1938-46), 38.1 second-feet.

Extremes.- Maximum discharge during year, 109 second-feet Oct. 10; minimum, 1.9 second-feet July 17.
1913-36, 1937-46: Maximum discharge, 1,090 second-feet July 23, 1941, from rating curve extended above 500 second-feet; no flow during periods in 1924, 1931, 1934, 1935, 1939.

Remarks.- Records good except those for periods of ice effect or no gage-height record, 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	42	52	50	43	50	39	8.5	8.8	2.6	6.2	10
2	13	44	46	49	43	48	40	6.9	15	2.7	4.9	8.4
3	12	44	45	50	47	47	40	8.5	8.8	2.7	5.4	8.8
4	13	47	47	50	47	47	34	8.5	7.7	2.7	4.6	8.1
5	18	46	47	50	43	42	35	8.5	7.7	3.0	4.3	6.9
6	17	45	46	46	43	42	37	9.6	6.2	3.0	5.4	a7
7	17	52	47	46	43	43	47	9.0	5.8	4.3	6.9	a7
8	17	54	45		45	45	38	8.5	6.9	3.0	6.9	4.6
9	18	50	45		44	46	36	8.5	6.9	2.6	6.5	4.6
10	49	51	43		47	47	33	9.0	6.5	2.4	7.7	4.6
11	38	51	45		47	47	31	12	5.4	2.3	8.4	4.9
12	63	54	48		46	45	31	12	5.1	2.1	23	4.9
13	51	58	41		43	46	33	12	6.2	2.3	12	4.9
14	46	57	43		45	48	34	9.6	5.8	2.3	8.4	4.9
15	46	58	45		46	45	34	8.5	5.8	2.4	7.3	6.5
16	47	57	47		44	44	31	9.6	4.6	2.3	11	5.1
17	46	57	48		46	42	29	9.0	4.9	2.1	10	5.1
18	44	54	48		49	41	25	8.5	4.6	2.4	9.7	5.8
19	43	52	43		54	41	24	8.5	4.9	2.7	9.2	6.2
20	42	52	45	43	56	40	18	6.9	4.9	3.2	13	6.2
21	43	a48	47		58	40	10	6.9	5.4	5.8	12	5.8
22	44	a50	50		64	41	11	5.8	5.1	6.2	15	5.4
23	44	a52	52		64	39	11	7.7	4.6	5.1	14	5.1
24	44	a51			66	38	10	7.7	4.0	8.1	12	4.9
25	43	50			59	38	10	7.3	4.0	11	9.7	4.6
26	43	49			55	38	10	8.5	3.5	7.7	8.8	5.8
27	41	50	50		54	39	10	13	3.0	4.9	7.3	5.8
28	41	51			54	43	10	18	2.6	5.1	6.5	5.4
29	41	51			-	44	10	18	2.1	6.2	6.5	5.4
30	42	52			-	40	10	13	2.4	14	6.5	5.8
31	42	-			-	39	-	11	-	8.1	8.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,121	63	12	36.2	2,220
November	1,529	58	42	51.0	3,030
December	1,465	52	41	47.3	2,910
Calendar year 1945	15,605.3	156	8.1	42.8	30,950
January	1,373	50	-	44.3	2,720
February	1,395	66	43	49.8	2,770
March	1,335	50	38	43.1	2,650
April	771	47	10	25.7	1,530
May	299.0	18	5.8	9.65	593
June	169.2	15	2.1	5.64	336
July	135.3	14	2.1	4.36	268
August	277.5	23	4.3	8.95	550
September	178.5	10	4.6	5.95	354
Water year 1945-46	10,048.5	66	2.1	27.5	19,930

a No gage-height record; discharge computed on basis of water commissioner's notes, weather records and records for station near Beaver.
Note.- Stage-discharge relation affected by ice Dec. 10, 13-31, Jan. 7 to Feb. 2, Feb. 5-9, 12-14.

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 and 5 miles east of Minersville.

Drainage area.- 510 square miles.

Records available.- October 1937 to September 1946.

Extremes.- Maximum contents observed during year, 23,590 acre-feet Mar. 8, 15, 22 (gage height, 51.3 feet); minimum observed, 5,130 acre-feet Sept. 17, 21 (gage height, 26.5 feet).

1937-46: Maximum contents observed, 23,810 acre-feet Apr. 22, 25, 28, 30, May 1, 1945; no contents Oct. 16, 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 fall of 1937 spillway crest was at elevation 52.5 feet. Dead storage negligible. Water is used for irrigation on lands of Delta Land & Water Co.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	18,230	-	-	-	-	-	19,270	-	-	-
2	-	-	-	-	22,380	-	23,480	-	-	-	-	-
3	-	15,770	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	22,820	18,990	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	6,440
6	13,510	-	-	20,970	-	-	-	-	-	-	10,270	-
7	-	-	-	-	-	-	-	-	18,610	-	-	-
8	-	-	18,800	-	-	23,590	23,480	22,380	-	14,480	-	-
9	-	-	-	-	22,490	-	-	-	-	-	-	-
10	-	16,340	-	-	-	-	-	-	-	-	-	5,670
11	-	-	-	-	-	-	-	22,160	-	-	-	-
12	-	-	-	21,060	-	-	23,480	-	-	-	6,590	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	14,080	-	-	-	-	-	-	-	17,760	-	-	5,290
15	-	-	19,180	-	-	23,590	23,480	-	-	13,190	9,180	-
16	-	-	-	-	22,600	-	-	-	-	-	-	-
17	-	17,100	-	-	-	-	-	21,280	-	12,780	-	5,130
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	21,720	-	-	-	-	-	-	8,690	-
20	14,480	-	-	-	-	-	23,480	-	-	-	-	-
21	-	-	-	-	-	-	-	20,880	16,720	-	-	5,130
22	-	-	19,650	-	-	23,590	-	-	-	-	8,420	-
23	14,890	-	-	-	22,930	-	-	-	-	-	-	-
24	-	17,760	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	20,120	-	-	-	5,170
26	-	-	-	22,160	23,260	-	23,260	-	-	-	7,980	-
27	15,210	-	-	-	-	23,480	-	-	-	11,490	-	-
28	-	-	-	-	23,260	-	-	19,740	15,770	-	-	-
29	-	-	20,210	-	-	-	-	-	-	-	7,490	-
30	-	18,230	-	-	-	23,480	23,260	-	15,370	-	-	5,250
31	15,530	-	20,400	22,270	-	a23,480	-	a19,390	-	11,150	7,210	-

a No gage-height record; contents interpolated.

Monthly gage height and contents, water year October 1945 to September 1946

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	40.5	13,510	-
Oct. 31	43.0	15,530	+2,020
Nov. 30	46.0	18,230	+2,700
Dec. 31	48.3	20,400	+2,170
Calendar year 1945	-	-	+2,550
Jan. 31	50.1	22,270	+1,870
Feb. 28	51.0	23,260	+990
Mar. 31	-	a23,480	+220
Apr. 30	51.0	23,260	-220
May 31	-	a19,390	-3,870
June 30	42.8	15,370	-4,020
July 31	37.3	11,150	-4,220
Aug. 31	30.9	7,210	-3,940
Sept. 30	26.8	5,250	-1,960
Water year 1945-46	-	-	-8,260

a No gage-height record; contents interpolated.

Beaver River at Rockyford Dam, near Minersville, Utah

Location.- Water-stage recorder and concrete control, lat. 38°14', long. 112°50', in NW¼ sec. 11, T. 30 S., R. 9 W., half a mile downstream from Rockyford Dam and 4¾ miles east of Minersville.

Drainage area.- 512 square miles.

Records available.- December 1913 to September 1946.

Average discharge.- 31 years (1914-36, 1937-46), 40.0 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 105 second-feet July 12, 13, 16; minimum daily observed, 7.0 second-feet Sept. 25-30.
1913-46: 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 except those for Oct. 1 to Apr. 3, which are fair. One small diversion between dam and station. Flow regulated by Rockyford Reservoir (see preceding page). Several diversions above reservoir for irrigation and municipal supply.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					15			44	81	82	76	91
2					15		35	43	82	86	81	91
3								44	82	93	84	89
4	12						32	44	82	93	86	91
5						25	32	53	76	81	89	89
		8										
6							32	54	54	81	56	89
7							35	58	61	72	44	86
8							36	61	68	76	53	82
9							36	68	68	93	84	81
10							35	70	74	101	89	81
11							34	70	76	103	89	78
12							32	68	74	105	82	73
13					35		31	68	84	105	76	68
14							30	68	84	103	78	60
15							29	67	84	103	78	56
			12	13								
16							30	74	82	105	78	37
17							31	74	78	103	81	23
18							30	74	78	103	82	16
19	9					40	21	74	78	103	82	13
20							17	74	78	100	82	11
		9										
21							17	82	78	100	82	12
22							16	82	78	100	63	11
23							15	84	78	82	63	7.6
24							15	89	86	58	82	7.6
25							16	89	89	51	82	7.0
					25							
26							16	89	89	58	82	7.0
27							17	89	89	76	81	7.0
28					-		16	89	86	79	81	7.0
29					-		30	89	82	79	82	7.0
30					-	35	44	89	82	74	82	7.0
31		-				35	-	86	-	57	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	297	-	-	9.6	589
November	260	-	-	8.7	516
December	372	-	-	12.0	738
Calendar year 1945	15,109	116	-	41.4	29,970
January	403	-	-	13.0	799
February	890	-	15	31.8	1,770
March	1,110	-	-	35.8	2,200
April	830	44	15	27.7	1,650
May	2,207	89	43	71.2	4,380
June	2,361	89	54	78.7	4,680
July	2,705	105	51	87.2	5,370
August	2,421	91	44	78.1	4,800
September	1,385.2	91	7.0	46.2	2,750
Water year 1945-46	15,241 2	105	7.0	41.8	30,240

Note.- No gage-height record Oct. 1 to Apr 3 except occasional staff-gage readings; discharge computed on basis of these readings, discharge measurements, and records for Rockyford Reservoir.

Center Creek near Parowan, Utah

Location.- Water-stage recorder, lat. 37°50', long. 112°49', in SE¼ sec. 24, T. 34 S., R. 9 W., 600 feet downstream from Parowan municipal power plant, 1½ miles south of Parowan, and 2¼ miles downstream from Left Fork.

Drainage area.- 60 square miles.

Records available.- October 1942 to September 1946.

Extremes.- Maximum discharge during year, 108 second-feet July 13 (gage height, 2.81 feet), from rating curve extended above 30 second-feet; minimum, 4.0 second-feet Jan. 15.

1942-46: Maximum discharge, 386 second-feet Aug. 5, 1945 (gage height, 4.59 feet), from rating curve extended above 50 second-feet by logarithmic plotting; minimum, 3.9 second-feet Mar. 5, 1944.

Remarks.- Records good except those for periods of ice effect or doubtful or no gage-height record, which are fair. Flow slightly regulated by Yankee Meadows Reservoir (capacity, about 700 acre-feet) and by power plant above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	d11	9.4	7.2	6.4	8.8	9.1	12	25	18	16	12	a11
2	d11	9.4	7.2	6.4	9.1	9.4	11	23	18	15	12	a10
3	d11	9.4	7.2	6.7	8.8	9.4	12	22	18	15	12	a10
4	d11	9.1	7.5	6.7	8.5	9.1	11	23	18	16	12	a10
5	d11	9.4	7.5	7.0	b8.2	8.8	11	23	18	15	12	a10
6	d11	9.4	7.5	7.0	9.1	9.8	13	22	17	15	12	a10
7	d11	9.1	7.5	9.4	9.1	9.1	13	20	17	15	12	a10
8	d11	7.8	7.2	*7.8	8.8	9.1	12	20	17	15	12	a10
9	d11	9.8	7.8	8.5	9.1	9.4	12	18	17	15	12	a10
10	d11	9.4	7.8	8.2	b9.1	10	12	18	17	15	12	a10
11	d11	9.4	8.2	8.5	8.8	9.8	13	21	16	15	14	a10
12	d11	9.4	8.2	7.5	8.8	9.8	13	20	17	15	a17	a10
13	d11	9.1	b6.4	7.8	b8.6	9.8	15	19	17	26	a14	a10
14	11	9.1	b6.6	8.2	b8.8	9.8	17	18	16	a20	a13	a10
15	11	9.4	b6.8	8.2	b9.0	9.8	15	16	16	a18	a14	a10
16	12	9.1	7.0	8.5	9.1	10	17	16	16	a16	a13	a10
17	11	9.1	7.0	8.2	9.1	9.8	18	16	16	a15	a12	a10
18	11	9.1	7.0	8.2	9.1	10	19	16	17	a14	a12	a10
19	10	*7.5	b6.6	7.8	9.1	11	23	21	16	a13	a15	a10
20	10	7.5	7.0	8.2	9.1	11	24	21	16	a13	17	10
21	11	7.8	7.2	b8.2	8.5	10	25	21	15	a13	17	9.8
22	10	7.8	7.2	b8.2	9.1	10	25	20	15	a13	13	9.8
23	11	7.5	6.7	8.2	9.8	10	29	21	15	a13	12	10
24	11	7.2	6.4	8.5	9.8	11	34	21	15	a13	a14	10
25	11	7.2	6.4	8.5	*9.8	10	44	20	15	a13	a13	10
26	10	7.2	6.4	8.5	9.8	10	35	20	16	a13	a12	10
27	10	7.2	6.4	b8.5	9.4	11	31	21	16	a13	a11	10
28	10	7.2	6.4	b8.5	9.8	11	27	21	16	a13	a11	9.8
29	10	7.2	6.4	8.5	-	11	26	23	16	a13	a11	9.8
30	10	7.2	6.4	b8.5	-	11	30	20	16	13	a11	9.8
31	10	-	6.4	8.8	-	11	-	20	-	12	a11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	333	12	10	10.7	660
November	254.4	9.8	7.2	8.48	505
December	217.5	8.2	6.4	7.02	431
Calendar year 1945	5,949.0	51	6.4	16.3	11,800
January	248.1	9.4	6.4	8.00	492
February	254.1	9.8	8.2	9.08	504
March	310.0	11	8.8	10.0	615
April	599	44	11	20.0	1,190
May	626	25	16	20.2	1,240
June	493	18	15	16.4	978
July	459	26	12	14.8	910
August	397	17	11	12.8	787
September	300.0	11	9.8	10.0	595
Water year 1945-46	4,491.1	44	6.4	12.3	8,910

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for nearby stations.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of weather records and records for nearby stations.

CEDAR CITY VALLEY
Coal Creek near Cedar City, Utah

Location.- Water-stage recorder, lat. 37°40'15", long. 113°00'20", in SE¼ sec. 17, T. 36 S., R. 10 W., 2 miles downstream from South Creek and 3.3 miles southeast of Cedar City.
Records available.- May 1935 to September 1946. May 1915 to November 1919 at approximately same site as May 1935 to May 1945, but records do not include flow of power canal operated during this period (abandoned since 1919). Records for May 1915 to November 1919 equivalent if flow of power canal is added.
Extremes.- Maximum discharge during year, 208 second-feet July 22 (gage height, 3.17 feet), from rating curve extended above 85 second-feet; minimum not determined (occurred during period of no gage-height record).
1935-46: Maximum discharge observed, 2,910 second-feet July 9, 1936 (gage height, 6.4 feet, site and datum then in use), from rating curve extended by broad-crested weir formula; minimum observed, 4 second-feet Dec. 15, 1935, but may have been less during periods of ice effect or no gage-height record.
Remarks.- Records poor. No diversion above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			11			14	10	82	30	12	8.6	
2	12		11			16	10	76	29	12	8.6	
3				8		15	12	71	28	11	8.2	
4	20					13	14	71	28	11	12	
5	15	11	9			12	18	71	27	11	11	
6	14					13	20	70	27	11	10	
7	14					11	19	68	26	11	10	
8	14			(*)	10	13	18	65	25	10	10	
9	40					17	17	61	25	10	12	
10	25		8	7		17	16	55	24	11	25	9
11	20	9				14	18	55	24	10	20	
12	35					11	20	47	22	11	30	
13	20					17	22	43	22	16	20	
14	17					13	25	38	21	14	15	
15	19					11	30	28	21	12	12	
16	21		6		11	15	32	22	20	11	11	
17	17					17	37	18	19	11	11	
18	16			8		18	43	16	18	11	11	
19	15	*7			13	17	48	13	18	12	15	7.6
20	14					10	54	12	17	15	25	7.6
21	14					10	58	12	16	22	15	7.6
22	13				15	17	64	13	15	60	12	7.9
23	13			9		15	70	15	14	11	30	8.2
24	12					18	78	15	14	10	20	8.2
25	13	9			*17	15	90	15	13	10	15	8.2
26	12		8		14		100	15	13	9	10	8.6
27	12				15		94	25	13	9	9	8.9
28	11	11			15		88	40	13	9	9	9.2
29		11		10	-	10	84	39	12	8.9	9	9.8
30	11	11			-		93	35	12	9.8	9	11
31		-			-		-	31	-	8.9	9	-

Month	Second-foot-days	Maximus	Minimum	Mean	Runoff in acre-feet
October	505	40	-	16.3	1,000
November	274	-	-	9.1	543
December	241	-	-	7.8	478
Calendar year 1945	12,408	314	-	34.0	24,600
January	255	-	-	8.2	506
February	332	17	-	11.9	659
March	419	18	-	13.5	831
April	1,302	100	10	43.4	2,580
May	1,237	82	12	39.9	2,450
June	606	30	12	20.2	1,200
July	400.6	60	8.9	12.9	795
August	432.4	30	8.2	13.9	858
September	264.8	11	7.6	8.83	525
Water year 1945-46	6,268.8	100	-	17.2	12,420

* Winter discharge measurement made on this day.
Note.- Doubtful or no gage-height record Oct. 1-13, Oct. 29 to Nov. 18, Dec. 10 to Feb. 24, Mar. 21, Mar. 25 to Apr. 2, Apr. 7-29, May 21-27, June 14-25, July 14-28, Aug. 5 to Sept. 18; computed on basis of weather records and records for stations on nearby streams; stage-discharge relation affected by ice Nov. 19-27, Dec. 3-9.

SALTON SEA BASIN
Salton Sea, Calif.

Location.- Bench mark set by Imperial Irrigation District, lat. 33°26'55", long. 116°02'20", in NW¼ 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 1946. 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), 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, of Salton Sea, Calif., water year October 1945 to September 1946

Oct. 1	240.90	Jan. 31	240.10	May 31	239.75
31	241.00	Mar. 1	239.85	July 1	240.00
Dec. 1	240.80	Apr. 1	239.70	Aug. 1	240.10
31	240.35	May 1	239.55	31	240.40

MOJAVE RIVER BASIN

Deep Creek near Hesperia, Calif.

Location.- Water-stage recorder and broad-crested weir, lat. 34°20'30", long. 117°13'40", in SE¼ sec. 18, T. 3 N., R. 3 W., 0.5 mile upstream from confluence with West Fork 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 1946.
Average discharge.- 16 years (1930-46), 70.7 second-feet.
Extremes.- Maximum discharge during year, 5,800 second-feet Dec. 23 (gage height, 6.53 feet); minimum daily discharge, 0.5 second-foot Aug. 24, 25.
1929-46: Maximum discharge, 46,600 second-feet Mar. 2, 1938, by slope-area method; minimum, 0.1 second-foot at times during 1932-34, 1936.
Remarks.- Records good except those for Oct. 29 to Nov. 6, July 20-25, which are fair, and those for June 5-16, which are poor. Flow partly regulated by Lake Arrowhead. Hesperia Water Co.'s canal diverts water about 2 miles above station for irrigation and domestic use.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	9.3	11	35	19	42	560	59	14	2.0	1.1	0.7
2	6.3	8.7	11	32	20	38	350	55	12	1.9	.9	.7
3	6.3	8.5	11	32	24	36	313	53	12	1.8	.8	.7
4	6.3	8.3	12	30	21	35	410	53	11	1.8	.7	.8
5	6.2	8.2	12	29	22	31	283	47	9.2	1.8	.6	.8
6	6.5	8.4	12	30	24	29	214	42	7.0	1.8	.6	.8
7	7.0	11	12	27	23	29	371	39	7.0	1.8	.6	.8
8	7.3	13	12	26	23	29	258	38	6.6	1.8	.7	.8
9	7.5	11	12	23	21	29	224	34	6.5	1.8	.7	.9
10	7.3	10	10	22	23	29	214	30	6.3	1.8	9	.9
11	6.8	10	13	23	25	28	219	31	6.2	1.7	.7	.9
12	7.1	11	14	17	23	27	224	30	5.7	1.7	.6	.9
13	7.3	11	11	25	27	27	205	23	4.7	1.6	.6	.9
14	7.1	11	10	23	25	38	200	22	4.0	1.6	.6	.9
15	7.9	11	14	22	29	33	196	21	3.5	1.7	.6	.9
16	7.8	11	14	22	31	33	188	21	3.1	1.6	.6	.9
17	7.7	11	13	21	29	34	183	20	2.5	1.6	.6	.9
18	7.4	11	14	23	30	33	175	20	2.5	1.7	.6	1.0
19	6.8	11	12	19	31	40	152	19	2.5	2.5	.6	1.0
20	6.2	11	12	19	32	50	137	18	2.5	8.7	.6	1.0
21	6.2	12	16	18	35	47	124	16	2.5	7.6	.6	1.1
22	6.2	13	1,830	18	38	45	106	16	2.5	5.5	.6	1.1
23	6.2	12	2,550	20	42	71	98	17	2.5	3.5	.6	1.2
24	6.2	11	390	20	44	82	90	17	2.4	15	.5	1.2
25	6.3	11	170	20	45	85	88	17	2.4	11	.5	1.2
26	6.5	11	109	20	42	82	85	16	2.4	4.6	.6	1.2
27	6.3	11	78	19	38	78	80	18	2.3	3.5	.6	1.2
28	6.3	11	61	20	41	75	73	17	2.3	2.4	.6	1.2
29	6.9	11	52	19	-	86	67	16	2.3	2.1	.7	1.2
30	9.8	11	45	16	-	2,240	63	15	2.1	1.6	.7	1.3
31	11	-	39	15	-	1,750	-	14	-	1.3	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	216.9	11	6.2	7.00	430
November	319.4	13	8.2	10.6	634
December	5,582	2,550	10	180	11,070
Calendar year 1945	26,116.5	2,700	2.5	71.6	51,800
January	705	35	15	22.7	1,400
February	827	45	19	29.5	1,640
March	5,311	2,240	27	171	10,530
April	5,950	560	63	198	11,800
May	854	59	14	27.5	1,690
June	152.5	14	2.1	5.08	302
July	101.4	15	1.3	3.27	201
August	20.4	1.1	.5	.66	40
September	29.1	1.3	.7	.97	58
Water year 1945-46	20,068.7	2,550	.5	55.0	39,800

Peak discharge.- Dec. 23 (10 a.m.) 5,800 sec.-ft.; Mar. 30 (4 p.m.) 5,300 sec.-ft.

Mojave River at lower narrows, near Victorville, Calif.

Location.- Water-stage recorder, lat. 34°34'25", long. 117°19'10", in SW¼SE¼ 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 1946. February 1899 to July 1906, November 1930 to September 1936 at site 3 miles upstream.

Average discharge.- 10 years (1936-46), 120 second-feet.

Extremes.- Maximum discharge during year, 8,000 second-feet Mar. 30 (gage height, 6.30 feet); minimum daily discharge, 13 second-feet Aug. 31, Sept. 1.
1930-46: Maximum discharge, 70,600 second-feet Mar. 2, 1938 (gage height, 18.7 feet, present datum), by slope-area method; minimum, 9 second-feet July 28, 1942.

Remarks.- Records fair except those for Dec. 25-31, Mar. 30 to Apr. 5, which are poor. Diversions above station principally for irrigation. Minor regulation by Lake Arrowhead.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	40	38	49	49	34	785	24	18	16	14	13
2	20	35	45	49	45	38	600	31	18	17	19	18
3	19	34	40	51	47	37	430	33	20	14	17	23
4	22	38	47	49	38	38	400	25	22	16	16	20
5	22	40	44	49	35	38	360	22	24	17	20	20
6	24	40	45	51	35	42	200	25	22	18	19	18
7	25	42	44	49	32	42	325	24	22	16	16	22
8	24	37	44	47	34	40	335	21	20	14	22	18
9	24	40	38	47	35	36	250	22	21	18	23	20
10	25	44	38	47	35	38	220	24	25	19	20	16
11	28	35	40	47	37	42	200	22	24	19	20	20
12	29	35	44	47	37	37	200	22	22	18	16	23
13	31	38	44	42	37	42	183	25	24	18	19	23
14	29	37	42	44	38	35	170	25	20	17	17	23
15	28	40	42	45	38	38	162	28	18	17	17	24
16	31	38	42	44	42	34	149	28	21	16	18	23
17	28	40	45	40	40	35	137	30	20	17	19	23
18	29	38	42	45	45	38	137	28	18	16	19	23
19	29	37	40	45	44	35	115	25	17	19	18	19
20	29	38	40	47	44	35	86	26	20	22	19	20
21	31	42	44	40	44	34	67	26	21	22	19	20
22	29	40	103	42	45	35	62	24	21	23	19	20
23	31	38	1,040	47	42	37	55	21	20	22	19	19
24	31	38	450	44	42	35	48	25	18	23	22	19
25	31	37	114	47	38	34	36	21	18	24	20	19
26	32	37	60	45	37	34	33	21	18	22	18	22
27	34	37	49	44	38	34	28	24	18	22	17	24
28	37	37	42	47	38	32	26	24	17	19	18	22
29	40	40	40	47	-	34	30	24	15	16	17	23
30	40	38	44	47	-	2,070	30	22	16	16	17	24
31	38	-	51	45	-	2,220	-	21	-	17	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	890	40	19	28.7	1,770
November	1,150	44	34	38.3	2,280
December	2,881	1,040	38	92.9	5,710
Calendar year 1945	28,644	1,500	14	78.5	56,820
January	1,429	51	40	46.1	2,830
February	1,111	49	32	39.7	2,200
March	5,355	2,220	32	173	10,620
April	5,859	785	26	195	11,620
May	763	33	21	24.6	1,510
June	598	25	15	19.9	1,190
July	570	24	14	18.4	1,130
August	567	23	13	18.3	1,120
September	621	24	13	20.7	1,230
Water year 1946	21,794	2,220	13	59.7	43,210

Peak discharge.- Dec. 23 (3:30 p.m.) 2,800 sec.-ft.; Mar. 30 (6 p.m.) 8,000 sec.-ft.

Mojave River at Barstow, Calif.

Location.- Water-stage recorder, lat. 34°54'25", long. 117°01'20", in SW¼SE¼ sec. 31, T. 10 N., R. 1 W., 75 feet upstream from bridge on U. S. Highway 91 at Barstow. Altitude of gage, about 2,090 feet.

Records available.- October 1930 to September 1946.

Average discharge.- 16 years, 46.8 second-feet.

Extremes.- Maximum discharge during year, 3,000 second-feet Mar. 31 (gage height, 3.65 feet); no flow for several months.
1930-46: 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 fair. Minor storage and many diversions above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0			0	1,200					
2			0			0	565					
3			0			0	412					
4			0			0	332					
5			0			0	316					
6			0			0	252					
7			0			0	125					
8			0			0	190					
9			0			0	175					
10			0			0	103					
11			0			0	110					
12			0			0	125					
13			0			.6	103					
14			0			.4	84					
15			0			.1	68					
16			0			0	50					
17			0			0	42					
18			0			0	30					
19			0			0	23					
20			0			0	21					
21			0			.1	15					
22			0			0	6.0					
23			5.4			.1	4.0					
24			84			0	3.1					
25			3.1			0	1.5					
26			0			0	.8					
27			0			0	.3					
28			0			0	.1					
29			0			.1	0					
30			0			.1	0					
31			0			1,890	-					

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	92.5	84	0	2.98	183
Calendar year 1945	11,228.1	730	0	30.8	22,270
January	0	0	0	0	0
February	0	0	0	0	0
March	1,891.5	1,890	0	61.0	3,750
April	4,356.8	1,200	0	145	8,640
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 1945-46	6,340.8	1,890	0	17.4	12,570

Peak discharge.- Dec. 24 (3:45 a.m.) 325 sec.-ft.; Mar. 31 (1:45 p.m.) 3,000 sec.-ft.

West Fork Mojave River near Hesperia, Calif.

Location.- Water-stage recorder, lat. 34°20'20", long. 117°14'35", in SE¼ sec. 13, T. 3 N., R. 4 W., at highway bridge, 0.5 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 1946.

Average discharge.- 16 years, 36.5 second-feet.

Extremes.- Maximum discharge during year, 6,600 second-feet Mar. 30 (gage height, 8.85 feet); no flow during several months.
1930-46: Maximum discharge, 26,100 second-feet Mar. 2, 1938, by slope-area method; no flow during several months of each year.

Remarks.- Records fair. Water diverted from Lake Gregory above station for domestic use and fire protection; no regulation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	10	0.5	12	258	17	0.2			
2			0	9.2	.5	9.8	245	23	.1			
3			0	9.8	19	4.8	196	17	.1			
4			0	9.8	45	4.1	161	9.4	.1			
5			0	8.2	26	3.5	126	4.7	.1			
6			0	7.3	17	2.9	112	2.6	0			
7			0	5.1	14	2.4	126	1.8	0			
8			0	2.9	12	2.1	92	1.8	0			
9			0	1.9	12	2.1	77	2.2	0			
10			0	3.5	13	1.7	65	2.2	0			
11			0	5.5	14	1.5	52	2.2	0			
12			0	9.8	14	1.7	50	2.2	0			
13			0	6.4	11	4.0	44	1.5	0			
14			0	6.8	10	15	38	1.3	0			
15			0	5.1	10	12	34	1.0	0			
16			0	4.8	13	8.2	33	1.0	0			
17			0	4.4	12	7.3	28	.7	0			
18			0	5.1	12	6.8	23	.3	0			
19			0	6.0	11	17	21	.2	0			
20			0	6.4	10	31	20	.2	0			
21			0	6.4	10	29	19	.2	0			
22			350	7.3	10	18	17	.3	0			
23			660	6.8	7.7	19	17	.3	0			
24			140	6.8	6.4	17	17	.3	0			
25			65	6.4	6.4	14	17	.2	0			
26			42	4.4	6.0	12	17	.3	0			
27			26	1.5	6.4	11	15	.2	0			
28			20	1.0	10	14	13	.3	0			
29			17	.7	-	98	11	.2	0			
30			14	.3	-	2,330	11	.3	0			
31			11	.4	-	777	-	.2	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	1,345	660	0	43.4	2,670
Calendar year 1945	11,598.8	1,120	0	31.8	23,010
January	170.0	10	.3	5.48	337
February	338.9	45	.5	12.1	672
March	3,488.9	2,330	1.5	113	6,920
April	1,955	258	11	65.2	3,880
May	95.1	23	.2	3.07	189
June	.6	.2	0	.02	1.2
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1945-46	7,393.5	2,330	0	20.3	14,670

Peak discharge.- Dec. 23 (9:45 a.m.) 1,700 sec.-ft.; Mar. 30 (1:30 p.m.) 6,600 sec.-ft.

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., 1.8 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 1946.

Average discharge.- 22 years (1923-37, 1938-46), 16.9 second-feet.

Extremes.- Maximum discharge during year, 650 second-feet Dec. 21 (gage height, 4.17 feet); minimum daily discharge, 4.8 second-feet. Dec. 2-6.
1923-46: Maximum discharge, 8,300 second-feet Mar. 2, 1938, by slope-area method; minimum, 1.2 second-feet Aug. 22, 1925.

Remarks.- Records fair below 100 second-feet and poor above. No diversions above station.

Cooperation.- Thirteen discharge measurements furnished by Los Angeles County Flood Control District, through H. E. Hedger, chief engineer.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	7.1	5.3	20	12	13	83	45	25	15	12	8.8
2	5.8	7.1	4.8	19	12	13	65	43	25	15	12	9.5
3	5.8	7.1	4.8	19	16	13	51	43	25	14	12	9.5
4	5.3	7.1	4.8	17	12	13	42	42	24	14	11	8.8
5	5.8	7.1	4.8	17	11	13	40	37	24	15	12	8.8
6	6.4	7.1	4.8	16	11	12	42	35	24	16	11	8.2
7	6.4	7.1	5.3	15	11	12	45	32	26	17	11	8.2
8	6.4	7.1	5.3	15	11	12	45	32	27	21	11	8.2
9	6.4	7.1	5.8	14	11	11	47	32	27	22	12	8.2
10	5.8	7.1	5.8	13	11	11	53	32	28	23	12	8.2
11	5.8	6.4	5.8	13	11	11	57	30	28	22	12	7.0
12	5.8	7.1	5.8	13	11	11	61	30	28	21	11	7.0
13	5.8	7.1	5.3	13	11	11	61	30	27	19	11	7.0
14	5.8	6.4	5.3	13	11	11	61	29	26	19	11	6.5
15	5.8	6.4	5.8	12	11	11	63	29	26	18	10	6.5
16	5.8	6.4	5.8	12	11	11	70	29	24	18	10	7.0
17	5.8	6.4	5.8	12	11	11	79	29	23	17	10	7.0
18	5.8	6.4	5.8	12	11	11	74	28	22	18	9.5	6.5
19	5.8	7.1	5.8	12	11	16	70	26	21	17	9.5	6.0
20	5.8	7.1	5.3	12	11	14	61	28	19	17	9.5	6.0
21	5.8	7.1	118	12	11	12	51	28	18	16	9.5	5.5
22	5.8	7.1	385	13	11	12	47	26	18	14	9.5	5.5
23	5.8	7.1	285	13	12	12	45	28	18	14	9.5	5.5
24	5.8	6.4	86	13	12	12	45	26	17	15	9.5	5.5
25	5.8	6.4	41	13	12	12	49	26	17	15	9.5	6.0
26	5.8	6.4	30	13	12	12	53	28	17	14	8.8	6.0
27	5.8	6.4	28	14	12	12	51	28	16	14	8.8	6.0
28	5.8	5.8	25	14	12	13	49	26	16	13	9.5	6.0
29	6.4	5.8	24	13	-	15	47	26	16	13	9.5	6.5
30	8.4	5.3	22	13	-	227	45	25	16	13	8.8	6.5
31	6.4	-	21	13	-	126	-	25	-	13	8.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	185.5	8.4	5.3	5.98	368
November	201.6	7.1	5.3	6.72	400
December	1,173.0	385	4.8	37.8	2,330
Calendar year 1945	5,558.5	385	4.8	15.2	11,040
January	433	20	12	14.0	859
February	322	16	11	11.5	639
March	706	227	11	22.8	1,400
April	1,652	83	40	55.1	3,280
May	953	45	25	30.7	1,890
June	668	28	16	22.3	1,320
July	512	23	13	16.5	1,020
August	321.2	12	8.8	10.4	637
September	211.9	9.5	5.5	7.06	420
Water year 1945-46	7,339.2	385	4.8	20.1	14,560

Peak discharge.- Dec. 21 (11 p.m.) 650 sec.-ft.; Dec. 23 (8:15 a.m.) 444 sec.-ft.; Mar. 30 (1 p.m.) 350 sec.-ft.

Little Rock Creek near Little Rock, Calif.

Location.- Water-stage recorder, lat. 34°27'50", long. 118°01'05", 0.2 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 1946 (1937-38, 1938-39 incomplete).

Average discharge.- 14 years (1930-37, 1939-46), 23.0 second-feet.

Extremes.- Maximum discharge during year, 1,100 second-feet Dec. 21 (gage height, 7.25 feet); no flow Sept. 9-30.
1930-46: Maximum discharge, 17,000 second-feet (estimated) Mar. 2, 1938; no flow during parts of most years.

Cooperation.- Records furnished by Los Angeles County Flood Control District, through H. E. Hedger, chief engineer.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	8.3	3.1	15	6.6	9.1	85	32	6.9	2.0	0.6	0.02
2	.2	5.6	3.1	13	6.3	8.7	72	30	6.6	1.9	.6	.02
3	.2	4.0	3.0	13	12	8.7	68	30	6.3	2.0	.5	.02
4	.2	3.4	3.0	12	11	8.7	76	27	5.6	1.8	.4	.02
5	.2	3.2	3.0	11	11	8.3	85	24	5.3	1.6	.4	.01
6	.7	3.2	3.0	11	9.1	7.9	90	22	5.3	1.4	.4	.01
7	4.5	3.8	2.9	10	8.7	7.5	94	21	5.0	1.4	.3	.01
8	5.3	4.7	2.9	10	8.7	7.5	78	20	5.0	1.4	.3	.01
9	4.7	4.7	2.9	9.1	8.3	7.2	82	20	4.4	1.4	.3	0
10	3.0	4.2	2.9	9.1	8.3	6.9	94	19	4.4	1.3	.3	0
11	1.9	4.2	2.8	8.7	9.1	6.9	106	19	4.0	1.3	.2	0
12	1.8	3.8	2.8	6.1	9.1	6.9	111	17	3.8	1.2	.2	0
13	1.4	3.8	2.8	8.7	8.7	7.2	104	16	3.6	1.2	.2	0
14	1.3	3.6	2.6	7.9	8.7	8.3	101	16	3.2	1.2	.2	0
15	1.3	3.6	2.6	7.5	9.1	7.5	107	15	2.8	1.0	.1	0
16	1.8	3.5	2.8	7.5	9.6	7.2	112	14	2.6	.8	.1	0
17	1.4	3.5	2.8	7.2	9.1	7.2	119	14	2.8	.8	.1	0
18	1.3	3.4	2.8	7.2	9.1	6.9	114	13	2.6	2.0	.1	0
19	1.2	3.4	2.8	7.2	9.6	13	104	12	2.6	5.6	.1	0
20	1.0	3.4	2.8	7.5	9.6	12	92	12	2.6	5.3	.1	0
21	1.0	3.4	117	7.5	9.6	10	78	11	2.4	3.6	.1	0
22	.8	3.3	604	7.2	10	10	64	11	2.4	2.2	.08	0
23	.8	3.3	358	7.2	10	14	56	11	2.6	1.9	.08	0
24	.8	3.3	118	6.9	10	19	53	10	2.6	1.9	.05	0
25	.8	3.3	60	6.9	10	19	54	10	2.8	2.2	.03	0
26	1.0	3.2	41	6.6	9.6	17	52	10	2.8	1.8	.03	0
27	1.0	3.2	31	6.6	9.1	17	48	10	2.6	1.2	.03	0
28	1.2	3.2	35	6.3	9.1	18	44	9.1	2.6	1.0	.03	0
29	2.0	3.2	21	6.3	-	20	39	8.3	2.4	.8	.03	0
30	15	3.1	18	6.3	-	370	35	7.2	2.4	.7	.03	0
31	15	-	16	6.3	-	170	-	6.9	-	.7	.03	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	73.0	15	0.2	2.35	145
November	113.8	8.3	3.1	3.79	226
December	1,466.4	604	2.6	47.3	2,910
Calendar year 1945	5,260.7	604	.1	14.4	10,430
January	262.8	15	6.1	8.48	521
February	259.1	12	6.3	9.25	514
March	847.6	370	6.9	27.3	1,680
April	2,417	119	35	80.6	4,790
May	497.5	32	6.9	16.0	987
June	111.0	6.9	2.4	3.70	220
July	54.6	5.6	.7	1.76	108
August	6.02	.6	.03	.194	12
September	.12	.02	0	.004	.2
Water year 1945-46	6,108.94	604	0	16.7	12,110

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 6,410.73 feet above mean sea level (datum of 1929); gage readings have been reduced to elevations above mean sea level. Prior to Oct. 2, 1945, datum of gage was 6,390.66 feet above mean sea level.

Records available.- June 1912 to September 1946; those prior to September 1934 are published in Water-Supply Paper 765.

Extremes.- 1912-46: Maximum elevation observed, 6,428.1 feet July 18, 1919; minimum observed, 6,414.5 feet Nov. 18, 1935.

Cooperation.- Gage-height record furnished by city of Los Angeles.

Elevation, in feet, above mean sea level, water year October 1945 to September 1946

Oct. 2	6,417.2	Aug. 29	6,418.1
9	6,417.2	May 6	6,418.1
15	6,417.2	13	6,418.0
23	6,417.2	21	6,418.0
Nov. 2	6,417.2	28	6,418.0
9	6,417.2	June 6	6,417.9
27	6,417.1	11	6,417.9
Dec. 18	6,417.1	17	6,417.9
27	6,417.4	26	6,417.8
Jan. 9	6,417.4	July 5	6,417.8
15	6,417.4	10	6,417.7
22	6,417.4	15	6,417.7
30	6,417.4	18	6,417.6
Feb. 5	6,417.5	22	6,417.6
12	6,417.5	Aug. 5	6,417.6
26	6,417.6	12	6,417.6
Mar. 12	6,417.6	20	6,417.5
19	6,417.8	28	6,417.4
26	6,417.8	Sept. 3	6,417.3
Apr. 2	6,417.9	9	6,417.2
9	6,418.0	17	6,417.0
16	6,418.0	20	6,417.1
23	6,418.0	22	6,417.0

WALKER LAKE BASIN

Walker Lake near Hawthorne, Nev.

Location.- Bench mark at United States naval depot, lat. 38°35', long. 118°42', in NE¼NE¼ sec. 2, T. 8 N., R. 29 E., 3 miles northwest of Hawthorne. Bench mark is 4,053.41 feet above mean sea level, adjustment of 1912.

Records available.- August 1928 to September 1946. Occasional readings prior to August 1928.

Extremes.- 1928-46: Maximum elevation observed, 4,051.8 feet Mar. 13, 1928 (Indian Service); minimum observed, 4,012.7 feet Sept. 6, 1946.
An elevation of 4,078.0 feet, adjustment of 1912, was observed Sept. 27, 1908, by Geological Survey.

Remarks.- Elevations determined by spirit leveling.

Cooperation.- Records furnished by U. S. Navy Department.

Elevation, in feet, above mean sea level, water year October 1945 to September 1946

Oct. 3	4,013.6	Apr. 16	4,013.7
Nov. 9	4,013.4	May 13	4,013.6
Dec. 3	4,013.1	July 8	4,013.4
Jan. 9	4,013.2	Aug. 9	4,013.0
Feb. 12	4,013.3	Sept. 6	4,012.7

Bridgeport Reservoir near Bridgeport, Calif.

Location.- Float gage, lat. 38°19'30", long. 119°12'50", in SE¼ sec. 34, T. 6 N., R. 25 E., at Bridgeport Dam on East Walker River and 4½ miles north of Bridgeport. Datum of gage is at mean sea level.

Drainage area.- 362 square miles.

Records available.- October 1931 to September 1946 in reports of Geological Survey. March 1926 to September 1946 in files of Walker River Irrigation District.

Extremes.- Maximum contents during year, 43,670 acre-feet Apr. 20, 22-29 (elevation, 6,460.4 feet); minimum, 11,880 acre-feet Sept. 30 (elevation, 6,445.40 feet).
1926-46: Maximum contents, 44,580 acre-feet June 12, 1938 (elevation, 6,460.7 feet); no contents 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 readings made about 8 a.m. daily.

Cooperation.- Elevations and capacity table furnished by Walker River Irrigation District.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24,240	28,010	35,440	41,290	38,710	39,540	42,460	42,760	39,540	35,440	28,120	16,900
2	24,140	28,360	35,570	41,000	38,710	39,980	42,460	42,610	39,540	35,170	27,900	16,580
3	24,140	28,700	35,700	41,000	38,710	40,420	42,460	42,760	39,680	35,170	27,660	16,340
4	24,040	29,040	35,830	40,710	38,710	40,560	42,460	42,760	39,540	35,040	27,440	16,260
5	24,040	29,280	35,960	40,270	38,710	40,710	42,460	41,580	39,540	34,770	26,860	16,030
6	24,140	29,520	36,230	39,830	38,710	40,850	42,460	42,170	38,710	34,640	26,420	15,870
7	24,140	29,640	36,360	39,540	38,840	41,000	43,070	41,580	38,840	34,640	25,980	15,470
8	24,240	30,000	36,500	39,260	38,710	41,000	43,670	41,290	38,840	34,510	25,540	15,170
9	24,450	30,240	36,630	39,120	38,710	41,140	43,520	41,000	38,980	34,380	25,100	14,880
10	24,660	30,610	36,900	38,980	38,710	41,290	43,520	40,860	39,260	34,110	24,660	14,660
11	24,880	30,970	37,040	38,710	38,710	41,290	43,370	40,140	39,260	33,860	24,240	14,500
12	25,100	31,330	37,320	38,840	38,710	41,440	43,370	40,860	39,680	33,600	24,040	14,360
13	25,320	31,570	37,460	38,980	38,710	41,580	43,370	40,560	38,980	33,090	23,410	14,220
14	25,430	31,700	37,590	38,980	38,710	41,580	43,370	40,420	38,710	32,840	23,200	13,850
15	25,540	31,950	37,730	38,840	38,710	41,730	43,370	40,420	38,570	32,590	23,200	13,450
16	25,760	32,200	37,870	38,570	38,710	41,730	43,370	40,560	38,430	31,700	23,000	13,100
17	25,980	32,590	38,010	38,570	38,710	41,880	43,370	40,560	38,150	31,210	22,190	12,770
18	26,200	32,840	38,150	38,510	38,710	41,880	43,370	40,270	37,870	30,850	21,800	12,630
19	26,420	33,090	38,290	38,570	38,710	42,020	43,370	40,270	37,590	30,360	21,400	12,500
20	26,530	33,220	38,430	38,570	38,710	42,020	43,670	40,420	37,460	30,000	21,010	12,260
21	26,640	33,350	38,570	38,570	38,710	42,170	43,520	40,420	37,460	29,640	20,440	12,260
22	26,750	33,480	38,840	38,570	38,710	42,170	43,670	40,420	37,320	29,160	20,070	12,130
23	26,860	33,600	39,260	38,570	38,710	42,170	43,670	40,420	37,180	28,930	19,700	12,260
24	26,980	33,860	39,540	38,570	38,710	42,170	43,670	40,560	37,040	28,820	19,330	12,260
25	27,090	33,980	39,980	38,710	38,840	42,170	43,670	40,420	36,630	29,160	18,780	12,200
26	27,200	32,240	40,270	38,710	39,980	42,170	43,670	40,120	36,360	29,160	18,440	12,130
27	27,320	34,380	40,420	38,710	39,120	42,170	43,670	39,980	36,100	29,160	18,260	12,130
28	27,440	34,640	40,850	38,710	39,260	42,170	43,670	39,830	36,100	29,160	17,920	12,060
29	27,550	34,900	41,000	38,710	-	42,170	43,670	39,830	35,960	28,920	17,580	11,940
30	27,660	35,170	41,000	38,710	-	42,170	43,520	39,680	35,700	28,700	17,320	11,880
31	27,900	-	41,140	38,710	-	42,170	-	39,400	-	28,360	17,080	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	6,452.8	24,240	+3,770
Nov. 1	6,454.5	28,010	+7,430
Dec. 1	6,457.5	35,440	+5,850
Calendar year 1945...	-	-	+20,180
Jan. 1	6,459.6	41,290	-2,580
Feb. 1	6,458.7	38,710	+830
Mar. 1	6,459.0	39,540	+2,920
Apr. 1	6,460.0	42,460	+300
May 1	6,460.1	42,760	-3,220
June 1	6,459.0	39,540	-4,100
July 1	6,457.5	35,440	-7,320
Aug. 1	6,454.55	28,120	-11,220
Sept.1	6,448.9	16,900	-5,080
Oct. 1	6,445.35	11,820	-
Water year 1945-46...	-	-	-12,420

East Walker River near Bridgeport, Calif.

Location.- Water-stage recorder, lat. 38°19'40", long. 119°12'50", in SW¼NE¼ sec. 34, T. 6 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 1946. July 1911 to September 1914 at site 1½ miles upstream (gage heights only).

Average discharge.- 23 years (1922-24, 1925-46), 131 second-feet.

Extremes (regulated).- Maximum daily discharge during year, 325 second-feet May 5; minimum daily, 9.7 second-feet Dec. 1.
1921-46: Maximum discharge, 1,240 second-feet Jan. 22, 1943; minimum daily recorded, 1.8 second-feet Nov. 20-24, 1944.

Remarks.- Records excellent. Diversions for irrigation of meadow and pasture lands near Bridgeport. Flow regulated by Bridgeport Reservoir (see preceding page).

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	12	9.7	282	95	97	77	288	307	279	235	202
2	99	12	10	313	95	97	80	276	307	279	235	202
3	95	12	10	313	95	97	80	267	307	279	235	197
4	91	12	10	313	95	97	86	304	307	279	235	184
5	84	12	10	304	95	97	97	325	307	279	235	182
6	78	12	10	270	95	97	159	319	307	276	241	187
7	78	12	10	246	95	97	244	316	307	267	261	200
8	63	12	10	241	95	97	244	316	307	264	264	200
9	40	12	10	221	95	97	202	313	307	255	264	197
10	40	12	10	190	95	97	166	313	307	255	270	197
11	40	12	10	175	95	97	150	313	307	252	285	197
12	38	12	10	172	95	97	150	310	307	261	285	197
13	38	12	10	172	95	97	141	310	310	279	294	197
14	38	12	10	163	95	97	139	310	310	279	297	192
15	38	12	10	134	95	97	139	310	310	291	294	180
16	38	12	10	105	97	97	141	307	310	316	294	180
17	38	12	10	93	97	97	145	307	310	316	294	180
18	38	12	10	95	97	97	172	307	310	316	288	163
19	38	12	10	95	97	97	216	307	310	316	285	139
20	38	12	10	95	97	97	244	307	310	313	285	132
21	38	12	10	95	97	97	241	307	310	313	285	103
22	38	12	10	95	97	97	241	310	310	313	282	82
23	29	12	10	95	97	97	241	310	310	300	279	68
24	12	12	34	95	97	97	226	310	307	285	279	48
25	12	12	86	95	97	97	221	310	307	279	279	48
26	12	12	119	95	97	97	218	310	304	279	276	52
27	12	12	134	95	97	97	221	310	286	270	261	71
28	12	12	143	95	97	73	221	310	258	255	261	89
29	12	12	168	95	-	73	216	310	258	258	249	89
30	12	11	194	95	-	73	229	310	270	258	224	89
31	12	-	221	95	-	75	-	307	-	249	205	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,370	119	12	44.2	2,720
November	359	12	11	12.0	712
December	1,328.7	221	9.7	42.9	2,640
Calendar year 1945	65,331.3	809	4.7	179	129,600
January	5,037	313	93	162	9,990
February	2,686	97	95	95.9	5,330
March	2,903	97	73	93.6	5,760
April	5,347	244	77	178	10,610
May	9,529	325	267	307	18,900
June	9,086	310	258	303	18,020
July	8,710	316	249	281	17,280
August	8,256	297	205	266	16,380
September	4,444	202	48	148	8,810
Water year 1945-46	59,055.7	325	9.7	162	117,200

West Walker River below East Fork, near Coleville, Calif.

Location.- Water-stage recorder, lat. 38°22'45', long. 119°27'00", in SE¼ sec. 9, T. 6 N., R. 23 E., 75 feet downstream from East Fork, 200 feet upstream from bridge on U. S. Highway 395, and 13 miles southeast of Coleville.

Drainage area.- 182 square miles.

Records available.- April 1938 to September 1946. October 1902 to July 1908 at site 9½ miles downstream; March 1909 to August 1910 and June 1915 to March 1933 at site 10 miles downstream, published as West Walker River near Coleville.

Extremes.- Maximum discharge during year, 1,470 second-feet May 20 (gage height, 4.73 feet); minimum, 40 second-feet Sept. 29, 30.

1938-46: Maximum discharge, 2,490 second-feet June 9, 1938 (gage height, 4.90 feet, site and datum then in use), from rating curve extended above 1,600 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 no gage-height record, 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 1945-46 (gage height, in feet, and discharge, in second-feet)

1.3	39	1.8	110	2.6	310	3.8	828
1.4	50	2.0	150	3.0	450	4.2	1,070
1.6	77	2.3	222	3.4	620	4.5	1,290

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	184	67	120	82	112	142	856	839	597	146	80
2	54	163	88	112	81	100	133	903	957	583	140	59
3	53	172	88	108	81	79	133	975	1,060	530	133	60
4	51	170	70	116	81	74	142	1,020	1,100	497	125	85
5	55	163	74	110	80	74	157	1,090	1,100	493	125	114
6	60	144	103	96	80	90	154	1,170	951	463	116	83
7	74	121	96	103	80	96	150	1,150	851	432	110	76
8	70	112	110	96	80	107	146	1,080	856	391	105	71
9	69	118	108	96	80	121	146	1,070	915	374	103	69
10	64	123	96	118	78	137	154	975	909	381	107	62
11	67	114	88	107	78	131	172	828	806	384	110	60
12	67	125	87	102	78	129	201	822	795	386	103	56
13	63	112	82	114	78	148	239	939	839	367	100	55
14	60	116	123	102	78	129	239	822	800	333	95	55
15	69	112	116	95	78	131	298	885	746	291	87	53
16	70	107	98	93	75	129	399	828	731	262	85	59
17	64	118	98	91	73	131	530	927	679	247	82	64
18	62	103	102	89	76	131	649	1,060	700	244	85	64
19	59	110	102	88	76	129	674	1,170	720	250	83	62
20	56	103	102	86	77	120	579	1,250	768	247	79	56
21	55	100	121	86	78	118	548	1,190	828	250	79	51
22	54	103	120	86	80	114	556	856	784	242	80	50
23	51	100	91	88	80	112	630	705	694	267	76	49
24	53	98	102	90	87	112	731	649	597	294	74	48
25	51	95	100	90	86	114	851	654	611	466	73	46
26	51	105	98	88	82	131	921	635	630	313	70	44
27	49	103	108	86	83	148	885	565	615	247	71	44
28	48	98	142	85	114	152	897	552	611	212	70	44
29	109	93	170	83	-	133	921	565	588	189	66	43
30	626	85	150	81	-	135	862	615	620	172	60	42
31	262	-	131	83	-	142	-	720	-	159	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,652	625	48	85.5	5,260
November	3,570	184	85	119	7,080
December	3,231	170	67	104	6,410
Calendar year 1945	120,290	1,680	43	330	238,600
January	2,988	120	81	96.4	5,930
February	2,260	114	73	80.7	4,480
March	3,709	152	74	120	7,360
April	13,239	921	133	441	26,260
May	27,426	1,250	552	885	54,400
June	23,700	1,100	588	790	47,010
July	10,573	597	159	341	20,970
August	2,898	146	60	93.5	5,750
September	1,784	114	42	59.5	3,540
Water year 1945-46	98,030	1,250	42	269	194,400

Note.- No gage-height record Jan. 17 to Feb. 25, Mar. 1, 2; discharge computed on basis of weather records and records for stations on nearby streams.

East Fork West Walker River near Bridgeport, Calif.

Location.- Water-stage recorder, lat. 38°21'30", long. 119°26'30", in NW¼NW¼ sec. 22, T. 6 N., R. 23 E., three-quarters of a mile north of Sonora Junction, 1½ miles upstream from mouth, and 14 miles northwest of Bridgeport.

Drainage area.- 63 square miles.

Records available.- October 1944 to September 1946. April to August 1910 at a site 1½ miles upstream. Records equivalent.

Extremes.- 1944-45: Maximum discharge during water year, 660 second-feet Feb. 2 (gage height, 2.69 feet), from rating curve extended above 270 second-feet on basis of velocity-area study; minimum daily, 16 second-feet Mar. 2-7.
1945-46: Maximum discharge during water year, 231 second-feet May 20 (gage height, 1.88 feet); minimum not determined, probably occurred during period of ice effect or no gage-height record.
1910, 1944-46: Maximum discharge recorded, that of Feb. 2, 1945; minimum daily, that of Mar. 2-7, 1945.

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

Discharge, in second-feet, 1944-46

1944-45

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					204	b17	27	164	111	258	66	26
2			(*)		224	16	23	167	139	258	66	27
3					44	b16	28	181	154	262	66	32
4					40	b16	25	195	221	245	68	33
5					26	b16	24	181	167	237	85	32
6					35	b16	30	167	139	233	83	30
7					30	b16	37	171	127	225	68	28
8					28	b17	32	181	133	210	60	27
9					26	b18	30	191	142	254	57	27
10			b18		32	21	30	210	160	218	52	26
11					28	23	26	206	181	202	52	26
12					28	31	26	199	218	199	50	25
13				(*)	30	39	26	188	258	195	47	24
14					26	36	25	157	262	177	46	23
15					24	27	36	142	245	157	41	23
16	a17	a21		b20	b22	b25	54	160	229	151	40	23
17					20	b22	64	157	237	142	39	23
18					b22	b23	74	136	254	130	40	23
19			21		*b21	b24	99	124	270	119	42	23
20			25		b21	26	119	117	283	111	40	23
21			23		b21	28	111	109	296	106	40	25
22			26		b21	31	104	109	304	106	39	24
23			21		b21	30	104	111	279	101	37	23
24			20		b21	b28	114	101	250	96	35	23
25					b20	26	117	94	229	90	33	23
26					b18	25	109	96	233	87	33	23
27					b18	b27	114	96	241	92	33	22
28			b18		b18	b25	127	99	250	87	33	22
29					-	*b22	139	106	266	80	32	22
30					-	b23	160	99	266	68	31	22
31		-			-	25	-	94	-	62	27	-

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for West Walker River below East Fork, near Coleville.
b Stage-discharge relation affected by ice.

Discharge, in second-feet, of East Fork West Walker River near Bridgeport, Calif., 1944-46--Continued

1945-46

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	29	b22	27		a28	b27	142	137	109	37	22
2	22	28	b20	25		a27	b28	142	154	107	35	22
3	21	28	b21	25		*24	30	151	174	100	34	23
4	21	27	b22	28		b25	31	162	184	98	31	32
5	22	27	b23	24		b26	37	174	181	95	34	26
6	24	25	b22	b22		27	34	187	168	91	35	24
7	26	24	b21	b23	b19	29	35	181	162	87	32	23
8	23	b23	b20	b25		31	32	171	159	80	31	23
9	23	b24	b19	b22		34	31	165	162	76	31	23
10	22	26	b19	b23		36	35	156	159	76	34	21
11	22	27	b22	b22		30	39	137	145	78	36	21
12	22	27	b20	b21		31	45	134	142	74	34	21
13	22	27	b19	b20		31	50	132	145	68	30	20
14	22	27	b18	b19		27	50	137	137	65	30	20
15	23	26	b19	*b19		28	63	154	129	59	29	20
16	22	b25	b20	b19		27	80	145	124	56	28	21
17	21	27	b21	b19		28	98	151	121	52	27	21
18	20	b24	b20	b19		30	109	168	121	54	27	21
19	20	b24	b21	b19	a18	28	107	184	126	54	27	21
20	*20	b25	b22	b19		25	93	197	145	52	26	20
21	20	b25	24	b19		26	89	190	154	56	27	21
22	20	25	25	21		26	93	159	145	56	27	20
23	20	25	23	21		24	102	142	132	58	26	20
24	20	25	24	21		25	*111	132	116	74	24	20
25	20	25	24	21		27	126	119	116	89	24	19
26	20	b23	24	b20	a19	34	139	116	111	59	23	19
27	19	b24	26	b20	a24	35	132	107	109	51	23	19
28	19	25	31	b20	a29	34	137	102	109	46	22	19
29	32	*24	32	b20	-	27	145	100	107	44	22	19
30	63	23	32	b20	-	26	137	102	114	42	21	19
31	31	-	32	b20	-	b26	-	119	-	39	21	-

* Winter discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

Monthly discharge, in second-feet, 1944-46

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1944	527	-	-	17	1,050
November	630	-	-	21	1,250
December	586	-	-	18.9	1,160
Calendar year	-	-	-	-	-
January 1945	620	-	-	20	1,230
February	1,089	224	18	38.9	2,160
March	735	39	16	23.7	1,460
April	2,034	160	23	67.8	4,030
May	4,508	210	94	145	8,940
June	6,544	304	111	218	12,980
July	4,958	262	62	160	9,830
August	1,481	85	27	47.8	2,940
September	753	33	22	25.1	1,490
Water year 1944-45	24,465	304	-	67.0	48,520
October 1945	724	63	19	23.4	1,440
November	764	29	23	25.5	1,520
December	708	32	18	22.8	1,400
Calendar year 1945	24,918	304	16	68.3	49,420
January 1946	663	28	19	21.4	1,320
February	535	29	-	19.1	1,060
March	882	36	24	28.5	1,750
April	2,265	145	27	75.5	4,490
May	4,558	197	100	147	9,040
June	4,188	184	107	140	8,310
July	2,145	109	39	69.2	4,250
August	888	37	21	28.6	1,760
September	640	32	19	21.3	1,270
Water year 1945-46	18,960	197	-	51.9	37,610

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 1946.

Extremes.- Maximum contents observed during year, 59,780 acre-feet May 7 (elevation, 5,005.15 feet); minimum, 15,320 acre-feet Sept. 30 (elevation, 4,981.95 feet).
1931-46: 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).

Remarks.- Topaz Reservoir, formerly known as Alkali Lake, was formed by diversion of water from West Walker River through a feeder canal and 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). 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 Walker River Irrigation District.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30,540	-	-	53,800	54,860	55,920	59,370	59,440	57,980	58,640	48,500	24,680
2	30,540	35,340	-	-	-	-	-	59,440	58,170	58,550	45,620	24,330
3	30,570	-	-	-	-	-	-	59,440	58,360	58,520	45,030	23,910
4	30,540	-	-	54,800	-	-	-	59,440	58,870	58,500	43,870	23,220
5	30,550	-	-	-	-	-	59,320	59,530	59,440	58,520	43,210	22,900
6	30,550	-	-	-	-	-	-	59,760	59,440	58,390	42,430	22,420
7	30,610	-	-	-	-	57,020	-	59,780	59,550	58,360	41,960	21,910
8	-	-	-	55,960	55,060	57,150	-	59,690	59,480	58,300	41,230	21,320
9	-	37,670	-	56,030	-	-	-	59,480	59,440	58,110	40,490	20,870
10	-	37,800	-	-	-	-	-	59,320	58,870	57,610	39,630	20,440
11	-	38,190	46,900	55,850	-	-	-	58,940	59,050	57,140	38,820	20,090
12	30,850	-	-	-	-	-	59,350	-	58,910	56,620	38,100	19,720
13	-	-	-	-	-	-	-	58,680	58,770	-	37,300	19,270
14	-	39,070	-	55,330	-	-	-	58,110	58,730	55,330	36,480	18,800
15	-	-	-	-	55,240	58,340	-	57,930	58,770	54,910	35,630	-
16	31,510	-	-	-	-	-	-	57,950	58,640	54,260	34,800	17,720
17	-	-	-	-	-	59,100	-	58,000	58,800	53,550	34,010	17,520
18	-	40,200	48,600	54,910	-	-	59,440	58,050	58,820	52,840	33,340	17,130
19	31,980	-	-	-	-	-	-	58,300	58,870	52,140	32,600	16,880
20	32,120	40,870	-	-	-	-	59,440	58,730	58,940	51,590	31,830	16,620
21	-	-	48,840	-	-	-	-	-	59,070	51,020	31,050	16,390
22	-	-	-	-	55,580	59,230	59,320	59,550	59,120	50,370	30,290	16,190
23	-	-	50,220	-	-	-	59,100	59,440	-	49,720	29,780	16,060
24	-	-	-	55,130	-	-	58,840	59,140	59,280	48,500	29,080	15,980
25	-	42,330	-	-	-	58,980	58,820	58,800	59,260	46,370	27,840	15,890
26	32,820	-	-	-	-	-	58,890	-	59,190	48,000	28,450	15,810
27	-	-	-	-	-	-	59,350	58,460	59,050	47,980	27,380	15,730
28	-	-	52,140	-	55,810	-	59,320	58,320	59,070	47,810	26,710	15,650
29	-	-	52,540	-	-	59,230	59,440	58,200	58,870	47,660	26,160	15,480
30	-	43,830	53,040	-	-	-	59,440	58,020	58,750	47,240	25,640	15,320
31	34,600	-	53,400	54,820	-	59,320	-	57,950	-	46,920	25,210	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	4,990.89	30,540	-
Oct. 31	4,993.15	34,600	+4,060
Nov. 30	4,997.85	43,830	+9,230
Dec. 31	5,002.32	53,400	+9,570
Calendar year 1945	-	-	+28,360
Jan. 31	5,002.96	54,820	+1,420
Feb. 29	5,003.40	55,810	+990
Mar. 31	5,004.95	59,320	+3,510
Apr. 30	5,005.00	59,440	+120
May 31	5,004.35	57,950	-1,490
June 30	5,004.70	58,750	+800
July 31	4,999.33	46,920	-11,830
Aug. 31	4,987.83	25,210	-21,710
Sept.30	4,981.95	15,320	-9,890
Water year 1945-46	-	-	-15,220

CARSON RIVER BASIN

East Fork 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.- 344 square miles (revised).
Records available.- May 1939 to September 1946. April 1890 to December 1893, October 1900 to December 1906, June to October 1917, December 1924 to September 1929, October 1935 to December 1937 at site 2 miles downstream, March 1908 to December 1910 at site 2 miles upstream.
Average discharge.- 19 years (1890-93, 1901-3, 1908-10, 1925-28, 1935-37, 1939-46), 424 second-feet.
Extremes.- Maximum discharge during year, 1,960 second-feet May 6 (gage height, 4.15 feet); minimum, 53 second-feet Sept. 30.
1890-93, 1900-1906, 1908-10, 1917, 1924-29, 1935-37, 1939-46: 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. Station is above all diversions in Carson Valley. Diversions above station for irrigation. Flow slightly regulated by several small reservoirs (total capacity, about 5,000 acre-feet).

Rating table, water year 1945-46 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 16 to July 20, Aug. 17 to Sept. 30)

0.8	50	2.2	481
1.0	82	2.6	696
1.2	124	3.0	968
1.5	204	3.5	1,375
1.8	307	4.0	1,870

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	230	115	311	156	181	260	1,290	946	425	115	88
2	77	204	129	285	151	192	256	1,320	1,040	394	109	86
3	75	236	153	274	151	195	270	1,420	1,140	360	102	84
4	72	226	143	288	146	170	311	1,490	1,160	339	94	88
5	74	201	131	288	143	162	394	1,550	1,150	327	92	122
6	80	184	131	226	156	181	398	1,660	999	307	86	96
7	86	164	148	230	138	192	364	1,650	887	281	100	92
8	88	143	124	220	131	214	351	1,560	852	233	106	90
9	92	156	124	181	141	236	327	1,500	859	223	131	88
10	90	175	164	210	131	270	327	1,370	852	239	126	77
11	96	159	151	198	141	267	368	1,230	765	230	124	70
12	100	167	134	164	126	246	443	1,200	746	223	109	67
13	88	159	122	178	141	331	526	1,190	746	210	102	65
14	86	167	94	187	129	267	486	1,120	721	195	96	64
15	102	172	159	190	138	263	610	1,180	679	184	92	60
16	113	153	159	178	131	256	798	1,130	655	178	104	60
17	100	172	120	175	122	256	1,010	1,240	616	170	109	68
18	92	148	111	178	131	250	1,210	1,380	605	162	115	68
19	90	164	113	167	134	253	1,260	1,500	594	170	109	67
20	86	159	129	167	131	236	1,080	1,510	605	178	100	67
21	84	148	338	162	134	226	991	1,540	616	172	106	60
22	82	159	688	172	134	223	983	1,130	588	162	113	58
23	80	153	331	167	138	220	1,100	953	547	153	111	59
24	79	153	256	181	153	210	1,260	880	496	159	104	60
25	80	164	250	181	151	207	1,450	873	476	349	96	59
26	79	162	230	159	143	236	1,490	873	481	223	102	58
27	77	164	223	156	164	281	1,390	765	458	173	94	56
28	75	162	481	162	223	296	1,380	739	443	153	90	56
29	99	159	578	153	-	292	1,420	758	416	141	88	54
30	855	146	453	138	-	285	1,320	784	420	124	90	54
31	355	-	360	141	-	263	-	866	-	122	90	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,711	855	72	120	7,360
November	5,109	236	143	170	10,130
December	6,842	688	94	221	13,570
Calendar year 1945	161,442	2,540	72	442	320,200
January	6,067	311	138	196	12,030
February	4,008	223	122	143	7,950
March	7,357	331	162	237	14,590
April	23,733	1,490	256	791	47,070
May	37,651	1,660	739	1,215	74,680
June	21,558	1,160	416	719	42,760
July	6,967	425	122	225	13,820
August	3,205	131	86	103	6,360
September	2,141	122	54	71.4	4,250
Water year 1945-46	128,349	1,660	54	352	254,600

Carson River near Carson City, Nev.

Location.- Water-stage recorder, lat. 39°06'30", long. 119°42'30", in NW¼ sec. 2, T. 14 N., R. 20 E., 2 miles downstream from Clear Creek, 2¼ miles upstream from bridge on road to Mexican Dam, and 5 miles southeast of Carson City.

Drainage area.- 876 square miles.

Records available.- May 1939 to September 1946.

Extremes.- Maximum discharge during year, 1,930 second-feet May 7 (gage height, 4.15 feet); minimum, 12 second-feet Aug. 28.
1939-46: Maximum discharge, 8,500 second-feet Jan. 22, 1943 (gage height, 8.40 feet, by slope-area method); minimum daily, 4 second-feet (estimated) Aug. 17, 1939.

Remarks.- Records good. Many diversions above stations for irrigation. Flow slightly regulated by several small reservoirs on tributaries.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	613	250	564	260	314	488	1,450	684	198	35	18
2	60	403	220	522	278	296	498	1,440	775	202	32	22
3	65	344	243	508	274	307	479	1,450	920	217	30	24
4	65	348	271	512	264	303	483	1,550	958	195	26	26
5	76	321	278	607	247	271	512	1,650	972	224	24	28
6	62	292	274	517	274	268	569	1,770	965	250	21	29
7	79	268	282	420	278	282	564	1,870	882	240	19	32
8	89	260	278	412	257	292	542	1,860	762	224	20	31
9	98	257	247	416	250	310	498	1,780	749	175	22	29
10	98	274	240	348	268	336	470	1,610	742	109	21	25
11	129	296	264	367	264	355	451	1,430	618	90	18	23
12	140	271	254	379	274	344	479	1,310	585	76	25	22
13	120	271	230	371	274	375	574	1,300	542	59	20	24
14	112	264	264	348	282	451	613	1,230	542	40	18	24
15	118	274	268	359	282	379	630	1,160	456	34	20	24
16	138	285	260	359	271	363	755	1,150	451	32	22	28
17	138	285	254	344	268	359	988	1,140	438	31	23	28
18	127	307	240	336	260	359	1,190	1,240	408	40	24	32
19	118	278	224	336	264	383	1,430	1,410	395	32	20	36
20	116	282	205	332	264	420	1,460	1,540	371	34	18	38
21	112	274	240	332	260	420	1,330	1,580	367	36	18	36
22	110	271	747	321	264	395	1,210	1,400	375	40	18	39
23	109	274	1,170	314	260	367	1,200	1,140	363	39	18	40
24	109	268	1,010	310	257	351	1,300	972	348	35	18	39
25	109	289	716	310	264	344	1,390	845	310	50	16	39
26	110	307	768	296	257	336	1,550	831	257	72	15	42
27	114	289	666	278	254	351	1,610	875	224	49	15	41
28	109	278	574	282	292	391	1,470	817	198	39	18	41
29	107	271	775	278	-	420	1,550	749	208	33	20	40
30	306	264	796	274	-	465	1,550	703	211	31	20	41
31	912	-	659	264	-	465	-	672	-	42	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,213	912	58	136	8,360
November	8,978	613	257	299	17,810
December	13,167	1,170	205	425	26,120
Calendar year 1945	179,963	3,340	22	493	356,900
January	11,616	607	264	375	23,040
February	7,461	292	247	266	14,800
March	11,072	465	268	357	21,960
April	27,833	1,610	451	928	55,210
May	39,924	1,870	672	1,288	79,190
June	16,076	972	198	536	31,890
July	2,968	250	31	95.7	5,890
August	649	35	15	20.9	1,290
September	941	42	18	31.4	1,870
Water year 1945-46	144,898	1,870	15	397	287,400

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 1946. April 1911 to December 1933 at site 8 miles upstream.

Average discharge.- 35 years (1911-46), 368 second-feet.

Extremes.- Maximum daily discharge during year, 1,760 second-feet May 8; no flow Oct. 1-11, July 14 to Sept. 30.
1911-46: Maximum discharge, 6,300 second-feet Jan. 24, 1943; no flow during some periods in nearly every year since 1923.

Remarks.- Several diversions above station for irrigation, including diversions for irrigation of 720 acres between present site and site 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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	682	266	616	280	309	435	1,450	616	147		
2	0	535	252	540	276	301	456	1,380	628	140		
3	0	380	234	534	305	309	456	1,380	683	137		
4	0	330	252	523	301	327	456	1,410	785	147		
5	0	325	266	540	293	309	456	1,520	793	142		
6	0	306	278	598	284	288	487	1,570	823	145		
7	0	278	283	513	297	284	518	1,720	778	145		
8	0	256	278	446	301	293	502	1,760	713	137		
9	0	252	278	430	288	301	487	1,590	652	123		
10	0	247	261	410	280	314	451	1,600	652	107		
11	0	256	252	385	288	342	430	1,400	610	85		
12	23	278	266	385	284	363	410	1,260	540	68		
13	79	256	270	337	268	358	446	1,190	513	10		
14	100	256	198	337	264	390	513	1,180	481	0		
15	79	256	224	348	293	425	540	1,070	456	0		
16	65	266	232	363	297	385	563	1,050	405	0		
17	81	270	270	363	297	368	652	997	390	0		
18	88	270	256	353	293	363	845	1,040	380	0		
19	87	288	243	363	284	363	1,080	1,150	358	0		
20	81	270	227	342	284	370	1,330	1,350	348	0		
21	81	266	224	337	280	395	1.340	1,410	332	0		
22	79	266	278	327	280	395	1,200	1,390	309	0		
23	75	261	853	327	284	375	1,130	1,150	301	0		
24	75	266	1,030	322	284	358	1,120	952	297	0		
25	79	261	845	327	284	342	1,220	830	284	0		
26	90	274	711	327	284	322	1,320	756	260	0		
27	94	292	749	318	284	322	1,490	770	225	0		
28	94	283	636	305	284	337	1,460	763	178	0		
29	92	274	636	301	-	375	1,400	736	172	0		
30	98	256	797	301	-	420	1,530	677	161	0		
31	350	-	725	297	-	461	-	634	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,890	350	0	61.0	3,750
November	8,956	682	247	299	17,760
December	12,570	1,030	198	405	24,930
Calendar year 1945	165,911	2,440	0	455	329,100
January	12,215	616	297	394	24,230
February	8,021	305	264	286	15,910
March	10,864	461	284	350	21,550
April	24,723	1,530	410	824	49,040
May	37,135	1,760	634	1,198	73,660
June	14,123	823	161	471	28,010
July	1,533	147	0	49.5	3,040
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1945-46	132,030	1,760	0	362	261,900

West Fork Carson River at Woodfords, Calif.

Location.- Water-stage recorder, lat. 38°46'00", long. 119°50'00", in SE¼SW¼ sec. 34, T. 11 N., R. 19 E., 0.3 mile downstream from bridge on State Highway 8, 0.8 mile west of Woodfords, and 3½ miles downstream from Willow Creek.
Drainage area.- 68 square miles.
Records available.- October 1900 to May 1907, 1910-11 (fragmentary), October 1938 to September 1946. 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.- 23 years (1901-3, 1905-15, 1916-20, 1939-46), 132 second-feet.
Extremes.- Maximum discharge during year, 860 second-feet Apr. 25 (gage height, 5.01 feet); minimum, 15 second-feet Aug. 26, 27, Sept. 26, 27.
1900-1920, 1938-46: Maximum discharge, 1,570 second-feet May 9, 10, 1906 (gage height, 6.8 feet, datum then in use); minimum (1900-1907, 1938-46), 9 second-feet Dec. 11, 1940
Maximum discharge known, 3,500 second-feet Dec. 11, 1937 (gage height, 9.0 feet, present datum, from floodmarks), by slope-area method.
Remarks.- Records good. One small diversion above station for irrigation. Flow slightly regulated by several small reservoirs (total capacity, about 1,500 acre-feet).

Rating table, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 11 to Sept. 30)

0.9	18	2.5	157
1.1	26	3.0	234
1.3	37	3.5	335
1.6	59	4.0	465
2.0	97	4.5	621

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	64	34	102	48	53	82	500	227	96	64	41
2	19	59	35	93	45	55	81	509	245	94	60	21
3	19	64	41	84	43	53	91	540	265	88	38	19
4	19	59	29	80	46	48	90	558	263	84	26	20
5	19	54	29	71	48	50	94	565	256	84	24	21
6	19	49	38	68	42	54	95	584	222	78	23	19
7	22	45	40	68	35	57	86	561	188	72	28	18
8	23	42	37	65	45	63	83	527	180	67	30	18
9	23	43	b35	64	46	70	80	485	183	65	29	17
10	24	45	38	67	46	82	84	443	186	62	30	35
11	28	40	37	61	44	80	102	400	172	57	23	43
12	26	45	36	62	45	78	135	387	167	56	37	42
13	23	43	35	61	43	98	158	374	163	54	50	40
14	21	43	b35	61	43	85	168	345	154	50	47	28
15	26	40	38	59	43	79	219	352	144	46	42	20
16	25	37	35	*56	42	74	293	335	141	44	34	19
17	23	42	34	55	40	75	394	357	131	42	28	19
18	22	40	33	54	41	74	491	389	135	53	24	19
19	21	46	36	53	41	74	521	397	134	61	21	18
20	20	43	35	53	40	71	459	397	136	62	25	17
21	20	41	52	52	41	67	429	359	138	57	26	17
22	20	43	57	52	40	65	432	291	129	38	28	17
23	20	40	45	53	41	64	518	265	121	35	29	17
24	20	40	48	54	42	64	577	229	111	53	24	16
25	20	38	47	54	40	66	635	227	109	85	18	16
26	19	43	41	50	41	77	577	247	111	57	17	16
27	19	39	48	51	47	97	524	212	108	45	36	16
28	19	36	88	50	53	105	561	204	108	38	39	35
29	38	39	125	49	-	85	568	203	104	48	40	35
30	286	*33	116	47	-	79	518	203	99	49	40	18
31	85	-	112	49	-	85	-	214	-	64	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,010	286	19	32.6	2,000
November	1,335	64	33	44.5	2,650
December	1,489	125	29	48.0	2,950
Calendar year 1945	40,021	739	18	110	79,360
January	1,898	102	47	61.2	3,760
February	1,211	53	35	43.2	2,400
March	2,227	105	48	71.8	4,420
April	9,145	635	80	305	18,140
May	11,659	584	203	376	23,130
June	4,830	265	99	161	9,580
July	1,884	96	35	60.8	3,740
August	1,025	64	17	33.1	2,030
September	697	43	16	23.2	1,380
Water year 1945-46	38,410	635	16	105	76,180

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

Humboldt River near Elko, Nev.

Location.- Water-stage recorder, lat. 40°56', long. 115°38', in SE¼NE¼ sec. 11, T. 35 N., R. 56 E., 1 mile southeast of Ryndon, 6 miles downstream from North Fork, and 10 miles northeast of Elko. Staff gage at site 11 miles downstream prior to Oct. 11, 1902, at different datum.

Records available.- October 1944 to September 1946. June 1895 to October 1902 at site 11 miles downstream.

Extremes.- Maximum discharge during year, 1,370 second-feet Apr. 23 (gage height, 6.53 feet); minimum, 3.4 second-feet several days in September.
1895-1902, 1944-45: Maximum discharge, 2,530 second-feet June 9, 1945; minimum observed, 0.5 second-foot several days in August and September 1901.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	56	100	392	94	511	726	1,250	929	218	46	6.0
2	25	57	90	390	86	487	733	1,240	810	206	43	4.2
3	27	57	80	321	89	500	722	1,210	719	200	37	3.8
4	29	58	90	283	89	453	692	1,160	653	186	33	3.4
5	30	58	90	258	96	451	653	1,090	617	175	28	3.8
6	30	58	90	251	83	390	666	1,020	611	177	24	3.4
7	30	59	90	202	75	445	695	988	647	175	21	3.8
8	30	60	85	b160	96	540	810	968	702	166	21	4.2
9	30	63	80	b135	*100	497	831	943	719	150	18	5.0
10	28	66	84	*b158	80	495	838	964	705	138	16	5.5
11	30	70	*88	b150	69	516	806	1,020	682	132	15	5.5
12	37	75	89	b145	91	568	772	1,100	675	124	14	4.6
13	36	80	90	b135	88	582	800	1,100	682	115	13	4.2
14	35	82	82	b130	78	695	862	960	669	108	13	4.2
15	35	85	75	b125	83	820	912	852	611	106	11	3.8
16	36	96	b72	b120	80	810	960	747	579	96	10	3.8
17	36	105	b69	b115	91	702	999	669	549	85	8.6	3.8
18	36	107	b70	b115	80	623	1,030	599	524	75	8.0	3.8
19	36	110	b73	b110	85	585	1,080	551	508	70	7.0	3.8
20	36	105	b70	b110	100	617	1,150	514	503	62	6.0	3.8
21	37	100	b62	b115	136	702	1,260	508	453	56	5.5	5.0
22	40	95	b59	b120	223	726	1,330	551	400	47	5.5	5.5
23	44	96	b54	125	313	688	1,360	620	357	41	6.5	5.5
24	46	98	b61	125	342	663	1,340	778	347	47	6.0	5.5
25	44	100	70	124	422	653	1,320	960	335	69	5.0	5.0
26	44	101	75	116	611	614	1,290	978	337	67	6.0	5.5
27	48	102	86	125	650	560	1,260	943	301	64	7.0	4.6
28	48	103	136	115	605	576	1,260	971	274	65	9.8	4.6
29	58	104	206	106	-	632	1,270	1,130	253	59	8.0	4.6
30	62	105	309	105	-	672	1,250	1,220	235	52	6.5	4.6
31	56	-	360	108	-	719	-	1,090	-	46	6.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,162	62	23	37.5	2,300
November	2,511	110	56	83.7	4,980
December	3,135	360	54	101	6,220
Calendar year 1945	161,700	2,480	-	443	320,700
January	5,089	392	105	164	10,090
February	5,035	650	69	180	9,990
March	18,492	820	390	597	36,680
April	29,677	1,360	653	989	58,860
May	28,694	1,250	508	926	56,910
June	16,386	929	235	548	32,500
July	3,380	218	41	109	6,700
August	464.4	46	5.0	15.0	921
September	134.8	6.0	3.4	4.49	267
Water year 1945-46	114,160.2	1,360	3.4	313	226,400

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Oct. 1-17, Nov. 2-14, Nov. 18 to Dec. 14; discharge computed on basis of weather records and records for stations at Carlin and at Palisade.

Humboldt River near Carlin, Nev.

Location.- Water-stage recorder, lat. 40°43', long. 116°00', in sec. 28, T. 33 N., R. 53 E., 4½ miles southwest of Moleen, 5 miles upstream from Susie Creek, 5½ miles east of Carlin, and 15 miles southwest of Elko.

Drainage area.- 4,310 square miles.

Records available.- October 1943 to September 1946.

Extremes.- Maximum discharge during year, 1,870 second-feet Apr. 26, 27 (gage height, 5.61 feet); minimum, 10 second-feet Sept. 12.
1943-46: Maximum discharge, 3,640 second-feet June 10, 1945 (gage height, 7.78 feet); minimum daily, 10 second-feet Oct. 1-7, 1943.
High water of February 1943 reached a stage of 9.8 feet (discharge, 5,900 second-feet, by slope-area method).

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation.

Rating table, water year 1945-46, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Jan. 6)

0.8	13	1.6	108	3.5	698
.9	20	1.9	167	4.0	930
1.0	28	2.2	242	4.7	1,300
1.2	49	2.6	363	5.6	1,860
1.4	76	3.0	501		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	100	176	396		915	1,040	1,770	1,440	430	117	15
2	48	101	167	416		809	1,060	1,710	1,360	434	101	14
3	47	105	152	476		759	1,070	1,650	1,220	399	93	15
4	48	105	122	469		690	1,060	1,610	1,110	386	85	16
5	53	106	161	423	b145	648	1,070	1,580	1,080	383	75	18
6	52	107	159	322		648	1,080	1,520	1,080	380	66	17
7	52	108	159	b280		640	1,040	1,500	1,080	360	58	18
8	54	109	b155	b260		599	1,060	1,460	1,080	337	48	18
9	53	110	b100	b225		652	1,120	1,400	1,060	309	41	18
10	50	115	*b120	b225		702	1,150	1,390	1,080	288	37	19
11	54	120		b240		720	1,140	1,420	1,120	264	35	16
12	69	130		b225		*728	1,140	1,360	1,120	245	32	12
13	63	140	b110	b215		809	1,140	1,300	1,080	231	31	12
14	63	150		b190	b135	1,060	1,150	1,300	1,060	223	29	13
15	*63	150		b185		1,020	1,200	1,300	1,050	208	26	14
16	65	155		b180		1,020	1,280	1,200	1,010	198	26	15
17	61	160		b175		1,070	1,350	1,060	945	183	25	18
18	62	165		b180		1,060	1,450	965	885	167	24	19
19	66	170		b170	156	1,030	1,520	915	823	156	22	21
20	68	170		b170	172	1,000	1,600	885	791	144	20	22
21	69	160	b100	b175	200	995	1,670	866	768	126	20	22
22	73	150		b160	297	1,000	1,710	985	750	115	19	22
23	80	140		*b155	458	1,030	1,760	1,080	707	105	17	21
24	79	145			549	1,020	1,800	1,140	669	100	16	21
25	82	150			861	970	1,850	1,140	615	98	18	22
26	84	160	b130		823	925	1,860	1,100	565	108	19	22
27	85	167	b150	b160	925	915	1,860	1,290	501	152	21	21
28	86	165	181		970	890	1,850	1,540	494	134	21	22
29	86	169	303		-	861	1,820	1,530	476	126	19	22
30	90	172	363		-	890	1,780	1,410	451	138	16	24
31	94	-	347		-	965	-	1,380	-	117	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,045	94	46	66.0	4,060
November	4,154	172	100	138	8,240
December	4,495	363	-	145	8,920
Calendar year 1945	263,816	3,630	27	723	523,300
January	7,192	476	-	232	14,270
February	7,921	970	-	283	15,710
March	27,040	1,070	599	872	53,630
April	41,680	1,860	1,040	1,389	82,670
May	40,736	1,770	866	1,314	80,800
June	27,470	1,440	451	916	54,490
July	7,044	434	98	227	13,970
August	1,193	117	16	38.5	2,370
September	549	24	12	18.3	1,090
Water year 1945-46	171,519	1,860	12	470	340,200

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- No gage-height record Nov. 4-26; discharge computed on basis of records for station at Palisade and other Humboldt River stations.

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, half a mile downstream from Palisade, 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 1946.

Average discharge.- 38 years (1903-6, 1911-46), 369 second-feet.

Extremes.- Maximum discharge during year, 2,040 second-feet Apr. 26 (gage height, 5.89 feet); minimum, 25 second-feet Sept. 13.
1902-6, 1911-46: Maximum discharge, 8,250 second-feet Feb. 26, 1943 (gage height, 9.92 feet); minimum, 2 second-feet Aug. 25-28, 1931.

Remarks.- Records excellent except those for period of no gage-height record, which are fair. Diversion above station for irrigation of about 150,000 acres of hay and pasture lands.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	118	215	457	193	1,050	1,240	1,890	1,550	457	123	29
2	69	118	212	475	190	949	1,280	1,850	1,540	453	111	29
3	71	116	173	524	202	880	1,290	1,780	1,380	432	100	28
4	71	118	161	556	193	782	1,300	1,730	1,240	410	96	30
5	75	121	156	520	176	723	1,380	1,690	1,170	402	88	33
6	77	118	181	402	187	739	1,420	1,650	1,140	402	77	31
7	77	125	184	337	190	810	1,330	1,600	1,140	381	73	30
8	79	125	187	306	181	723	1,340	1,550	1,140	357	66	30
9	82	123	125	269	167	755	1,380	1,520	1,120	329	60	31
10	80	133	123	291	167	862	1,400	1,500	1,120	302	55	31
11	80	145	130	299	190	936	1,410	1,550	1,140	280	52	31
12	82	153	128	252	170	898	1,400	1,500	1,170	255	49	30
13	84	161	143	252	170	1,030	1,410	1,420	1,140	238	45	26
14	82	176	138	245	170	1,240	1,420	1,380	1,100	231	44	27
15	84	176	148	a230	167	1,220	1,460	1,380	1,100	215	42	27
16	84	176	138	a215	173	1,160	1,510	1,300	1,050	202	40	29
17	86	184	121	a210	158	1,210	1,590	1,170	1,000	190	40	33
18	82	193	109	a220	170	1,240	1,650	1,040	942	173	40	35
19	84	196	107	a210	178	1,240	1,740	956	886	164	39	36
20	88	206	121	a190	231	1,270	1,810	923	839	151	36	37
21	90	202	113	a220	302	1,230	1,870	892	799	138	35	39
22	96	173	111	a205	394	1,220	1,910	1,060	777	123	34	39
23	100	167	118	206	506	1,260	1,930	1,230	744	113	33	39
24	103	176	121	190	632	1,260	1,970	1,280	708	107	30	39
25	105	196	140	215	868	1,170	2,010	1,270	662	107	30	39
26	107	199	156	206	910	1,100	2,030	1,220	608	109	31	39
27	113	209	167	209	968	1,140	2,020	1,380	547	135	33	39
28	111	209	218	209	1,110	1,160	2,000	1,650	520	143	33	37
29	113	212	341	212	-	1,130	1,950	1,700	510	135	33	39
30	113	215	453	196	-	1,110	1,900	1,600	488	133	31	40
31	116	-	432	181	-	1,170	-	1,520	-	128	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,753	116	69	88.8	5,460
November	4,939	215	116	165	9,800
December	5,370	453	107	173	10,650
Calendar year 1945	304,275	3,760	48	834	603,500
January	8,709	556	181	281	17,270
February	9,313	1,110	158	333	18,470
March	32,667	1,270	723	1,054	64,790
April	48,350	2,030	1,240	1,612	95,900
May	44,181	1,890	892	1,425	87,630
June	29,270	1,550	488	976	58,060
July	7,395	457	107	239	14,670
August	1,628	123	29	52.5	3,230
September	1,002	40	26	33.4	1,990
Water year 1945-46	195,577	2,030	26	536	387,900

a No gage-height record; discharge computed on basis of records for other Humboldt River stations.

Humboldt River near Argenta, Nev.

Location.- Water-stage recorder, lat. 40°40', long. 116°40', in NW¼ sec. 2, T. 32 N., R. 47 E., 2½ miles east of Argenta and 15½ miles east of Battle Mountain.

Records available.- February to September 1946.

Extremes.- Maximum discharge during period, 1,780 second-feet Apr. 27, 28 (gage height, 8.58 feet); minimum, 11 second-feet Sept. 11.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	943	d1,280	1,720	1,300	451	119	12
2					-	928	d1,300	1,690	1,290	429	109	12
3					-	891	d1,310	1,650	1,280	418	96	12
4					-	845	d1,330	1,600	1,190	402	80	15
5					-	792	d1,360	1,560	1,070	389	72	16
6					-	764	d1,390	1,510	996	382	68	16
7					-	788	d1,410	1,390	965	374	63	15
8					-	802	d1,410	1,340	950	359	58	15
9					-	750	d1,420	1,300	936	330	55	15
10					-	778	1,430	1,310	906	310	54	12
11				†315	-	841	1,440	1,300	891	294	52	14
12					-	888	1,440	1,300	902	273	49	16
13					-	d920	1,460	1,260	910	269	47	16
14					-	965	1,480	1,200	914	225	44	16
15					†206	1,080	1,500	1,160	910	212	41	15
16					-	1,110	d1,520	1,140	891	200	35	15
17					-	1,090	d1,560	1,090	866	189	32	16
18					-	d1,170	d1,600	992	820	181	30	17
19					-	d1,180	1,660	902	732	171	a28	17
20					245	d1,190	1,690	837	795	160	a27	18
21					269	d1,200	1,720	802	760	150	a25	19
22					328	d1,230	1,750	620	729	134	a24	19
23					d437	1,240	1,770	917	709	118	a22	20
24					d587	1,260	1,750	992	685	112	a20	20
25					d675	d1,260	1,750	1,040	655	113	a18	20
26					939	d1,260	d1,750	1,060	616	133	a16	20
27					902	d1,270	1,780	1,080	571	130	a14	20
28					906	d1,230	1,770	1,190	521	122	13	21
29					-	d1,270	1,770	1,320	488	126	13	22
30					-	d1,260	1,740	1,390	471	118	12	23
31					-	d1,260	-	1,370	-	119	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February 20-28	5,288	939	245	588	10,490
March	32,455	1,270	750	1,047	64,370
April	46,540	1,780	1,280	1,551	92,310
May	38,232	1,720	802	1,233	75,830
June	25,779	1,300	471	859	51,130
July	7,393	451	112	238	14,660
August	1,348	119	12	43.5	2,670
September	504	23	12	16.8	1,000
The period	-	-	-	-	312,500

† Result of discharge measurement.
a No gage-height record; discharge computed on basis of records for nearby stations.
d Doubtful gage-height record; discharge computed on basis of 5 discharge measurements and records for nearby stations.

Humboldt River at Battle Mountain, Nev.

Location.- Water-stage recorder, lat. 40°39', long. 116°56', in SE¼ sec. 8, T. 32 N., R. 45 E., 1 mile northeast of Battle Mountain. Reese River when flowing enters Humboldt River several miles below station. Former staff gage at site 900 feet downstream at different datum.

Records available.- July 1896 to December 1897 (gage heights only), March 1921 to April 1924, January to September 1946.

Extremes.- Maximum discharge during period, 1,500 second-feet Apr. 24 (gage height, 8.90 feet); minimum, 10 second-feet Sept. 3, 4.
1921-24, 1946: Maximum discharge observed, 1,560 second-feet June 19, 20, 1921, and May 11-13, 1922; minimum observed, 7 second-feet (discharge measurement) Sept. 30, 1921.

Remarks.- Records good. Records do not include flow in secondary channels or ditches, much of which is used for irrigation. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	235	960	1,240	1,460	1,260	468	125	11
2				-	235	978	1,270	1,450	1,250	446	115	11
3				-	247	968	1,290	1,440	1,230	430	107	10
4				460	265	929	1,310	1,410	1,210	416	93	12
5				506	261	864	1,330	1,380	1,170	399	84	16
6				a480	242	818	1,360	1,350	1,100	390	78	15
7				a430	252	800	1,380	1,320	1,050	380	74	14
8				a370	277	846	1,400	1,270	1,020	365	70	18
9				a320	270	818	1,420	1,220	994	344	66	20
10				a290	239	810	1,420	1,200	971	317	64	20
11				297	218	872	1,420	1,200	958	301	63	18
12				290	235	932	1,420	1,190	958	281	61	16
13				267	234	955	1,420	1,180	963	263	57	17
14				242	225	978	1,430	1,170	965	234	54	16
15				247	244	1,040	1,420	1,150	965	225	52	15
16				259	227	1,110	1,430	1,120	958	215	48	14
17				265	234	1,010	1,450	1,100	942	a201	43	15
18				265	218	1,140	1,440	1,060	916	a188	39	16
19				259	228	1,150	1,460	1,010	880	180	31	16
20				237	232	1,160	1,470	932	859	168	29	17
21				251	247	1,180	1,460	882	841	158	27	17
22				222	288	1,210	1,470	880	800	147	26	18
23				232	378	1,220	1,490	932	750	133	24	18
24				242	610	1,230	1,490	984	723	125	23	20
25				259	755	1,230	1,490	1,020	694	120	21	20
26				295	841	1,240	1,490	1,060	648	125	18	20
27				281	921	1,240	1,480	1,110	598	147	16	20
28				281	932	1,210	1,480	1,140	550	126	14	20
29				279	-	1,200	1,470	1,170	506	129	13	21
30				277	-	1,220	1,470	1,210	488	125	12	23
31				247	-	1,230	-	1,250	-	117	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January 4-31	8,350	506	222	298	16,560
February	9,790	932	218	350	19,420
March	32,548	1,240	800	1,050	64,560
April	42,570	1,490	1,240	1,419	84,440
May	36,250	1,460	880	1,169	71,900
June	27,217	1,260	488	907	53,980
July	7,663	468	117	247	15,200
August	1,558	125	11	50.3	3,090
September	504	23	10	16.8	1,000
The period	-	-	-	-	330,200

a No gage-height record; discharge computed on basis of records for other Humboldt River stations.

Humboldt River at Comus, Nev.

Location.- Water-stage recorder, lat. 41°00', long. 117°19', in SE¼ sec. 14, T. 36 N., R. 41 E., at Comus section house of Southern Pacific Railroad, 9 miles northeast of Golconda and 32 miles northwest of Battle Mountain. Former staff gage at site half a mile downstream at different datum.

Records available.- September 1917 to June 1923, May 1925 to May 1926, February to September 1946.

Extremes.- Maximum discharge during period, 1,400 second-feet May 3 (gage height, 7.09 feet); minimum, 1.7 second-feet Sept. 30 (gage height, 0.02 foot).
1917-23, 1925-26, 1946: Maximum discharge, 2,700 second-feet June 24-26, 1921 (gage height, 10.9 feet, site and datum then in use, based on discharge measurement made 5 miles downstream; no flow during periods of 1918, 1919, 1920.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	600	1,180	1,390	1,100	546	119	9.6
2					-	634	1,210	1,390	1,100	512	111	8.8
3					-	665	1,240	1,400	1,110	485	111	8.0
4					-	678	1,220	1,400	1,120	466	107	8.0
5					-	743	1,230	1,380	1,120	447	99	8.8
6	†52				-	793	1,240	1,380	1,120	434	91	7.5
7					-	798	1,240	1,370	1,120	413	83	8.8
8					-	800	1,240	1,360	1,110	394	77	14
9					-	768	1,240	1,350	1,070	382	74	10
10					-	762	1,260	1,360	1,000	367	69	8.0
11					-	749	1,270	1,370	963	347	62	6.5
12					-	753	1,300	1,330	930	325	61	6.5
13					-	756	1,300	1,310	902	305	58	6.0
14					-	753	1,300	1,300	873	285	53	6.0
15					-	770	1,310	1,270	847	265	51	5.5
16					-	800	1,310	1,240	829	244	47	5.5
17					-	823	1,300	1,220	816	233	43	5.5
18					-	849	1,290	1,200	812	225	38	6.0
19					248	886	1,290	1,170	812	220	35	6.0
20					269	932	1,270	1,130	810	a205	32	5.5
21					254	1,020	1,270	1,110	802	a190	29	5.0
22					248	1,050	1,280	1,080	789	a175	26	4.5
23					258	1,080	1,300	1,070	768	a160	25	4.0
24					285	1,100	1,320	1,050	749	145	23	4.0
25					343	1,110	1,340	1,000	732	136	21	3.0
26					451	1,120	1,340	979	707	135	20	2.6
27					527	1,130	1,350	990	680	153	17	2.3
28					562	1,130	1,370	1,000	655	166	16	2.3
29					-	1,140	1,370	1,030	623	180	14	2.1
30					-	1,180	1,380	1,060	588	130	12	1.9
31					-	1,190	-	1,100	-	123	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February 19-28	3,445	-	-	344	6,830
March	27,562	1,190	600	889	54,670
April	38,560	1,380	1,180	1,285	76,480
May	37,789	1,400	979	1,219	74,950
June	26,657	1,120	588	889	52,870
July	8,793	546	123	284	17,440
August	1,634	119	10	52.7	3,240
September	182.2	14	1.9	6.07	361
The period	-	-	-	-	286,800

† Result of discharge measurement.
a No gage-height record; discharge interpolated.

Humboldt River near Imlay, Nev.

Location.- Water-stage recorder, lat. 40°41'30", long. 118°12'10", in SE¼ sec. 25, T. 33 N., R. 33 E., 1 mile upstream from old Calahan Dam and 4 miles northeast of Imlay. Former gage at site 1 mile downstream at different datum.

Drainage area.- 13,500 square miles.

Records available.- June 1935 to September 1941, April 1945 to September 1946.

Extremes.- 1945: Maximum discharge during period April to September, 2,220 second-feet May 31, June 1 (gage height, 9.49 feet); minimum daily, 98 second-feet Sept. 27-30.
1945-46: Maximum discharge during water year, 1,210 second-feet May 14-16; minimum, 40 second-feet Sept. 13 (gage height, 0.47 foot).
1935-41, 1945-46: Maximum discharge that of May 31, June 1, 1945; no flow at times in several years.

Remarks.- Records good except those for period of ice effect, which are fair. Humboldt-Lovelock Irrigation Light & Power Co.'s feeder canal diverts water from river above station to Pitt-Taylor Reservoirs. This water is ordinarily released during irrigation season through Rye Patch Reservoir to Humboldt River for irrigation in Lovelock district. Flow also affected by many other diversions above station for irrigation.

Discharge, in second-feet, 1945-46

1945

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	761	2,220	2,040	908	219
2							-	775	2,200	2,020	860	213
3							-	793	2,180	1,980	815	206
4							-	811	2,170	1,900	763	200
5							-	832	2,120	1,820	703	190
6							-	852	2,090	1,740	637	180
7							-	878	2,080	1,680	588	176
8							-	918	2,090	1,610	555	172
9							-	961	2,050	1,560	525	166
10							-	983	1,990	1,520	497	160
11							-	1,030	1,920	1,480	475	158
12							-	1,120	1,900	1,480	448	152
13							-	1,220	1,900	1,480	421	148
14							-	1,290	1,910	1,490	401	146
15							-	1,390	1,920	1,480	367	148
16							-	1,460	1,880	1,480	341	129
17							-	1,500	1,850	1,500	336	122
18							-	1,530	1,840	1,530	327	120
19							-	1,570	1,800	1,550	317	119
20							-	1,610	1,750	1,530	310	120
21							-	1,660	1,700	1,510	300	119
22							-	1,710	1,650	1,470	292	111
23							-	1,780	1,620	1,430	282	108
24							-	1,850	1,630	1,390	276	106
25							-	1,910	1,670	1,340	263	105
26							-	1,940	1,760	1,280	251	104
27							-	1,920	1,840	1,220	243	98
28							703	2,050	1,900	1,150	237	98
29							723	2,150	1,960	1,080	237	98
30							743	2,200	2,010	1,010	230	98
31							-	2,220	-	959	224	-

Discharge, in second-feet, of Humboldt River near Imlay, Nev., 1945-46--Continued

1945-46

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	117	195			340	767	996	916	629	200	62
2	98	115	196			380	787	1,010	875	637	196	61
3	98	117	200		300	416	800	1,020	866	629	191	60
4	93	122	210			441	824	1,030	837	608	184	61
5	91	134	213			468	835	1,050	837	564	177	61
				400								
6	93	127	217		266	488	877	1,070	842	532	165	60
7	94	130	220		325	498	892	1,080	853	503	150	58
8	93	129	218		316	462	925	1,090	857	464	141	57
9	95	136	214		287	479	946	1,100	839	433	136	56
10	94	153			295	490	946	1,130	822	407	134	55
11	96	150			272	496	950	1,150	826	402	128	54
12	93	161	170		260	505	955	1,170	835	400	127	52
13	92	149			246	500	955	1,190	842	392	122	42
14	93	148			281	502	957	1,210	850	376	118	46
15	95	160			305	507	955	1,210	861	371	114	47
				270								
16	98	157			281	505	955	1,210	850	378	107	49
17	97	154			256	511	971	1,200	831	346	91	51
18	95	160			244	517	978	1,200	789	337	87	50
19	100	169			244	528	987	1,180	754	324	83	49
20	99	164			236	552	989	1,160	747	311	80	49
			190									
21	100	165			211	572	998	1,130	734	300	78	48
22	101	168			215	584	1,010	1,100	738	290	76	47
23	98	170			228	600	1,010	1,070	756	275	75	47
24	99	174			245	620	1,020	1,050	747	252	74	47
25	100	184			301	635	1,020	1,040	723	245	73	58
				300								
26	100	183			300	652	1,010	1,040	713	254	71	59
27	103	184			298	671	982	1,050	698	244	69	55
28	103	186			311	694	941	1,040	675	236	68	51
29	104	191	230		-	709	941	1,020	644	225	66	47
30	112	192			-	734	962	987	637	218	63	51
31	116	-			-	751	-	957	-	204	63	-

Note.- Stage-discharge relation affected by ice Dec. 10 to Feb. 5.

Monthly discharge, in second-feet, 1945-46

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 1945	43,674	2,220	761	1,409	86,630
June	57,600	2,220	1,620	1,920	114,200
July	46,719	2,040	959	1,507	92,670
August	13,429	908	224	433	26,640
September	4,289	219	98	143	8,510
Water year	-	-	-	-	-
October 1945	3,041	116	91	98.1	6,030
November	4,649	192	115	155	9,220
December	8,183	-	-	199	12,260
Calendar year	-	-	-	-	-
January 1946	10,000	-	-	323	19,830
February	7,723	325	211	276	15,320
March	16,807	751	340	542	33,340
April	28,145	1,020	767	938	55,820
May	33,940	1,210	957	1,095	67,320
June	23,794	916	637	793	47,190
July	11,786	637	204	380	23,380
August	3,507	200	63	113	6,960
September	1,590	62	42	53.0	3,150
Water year 1945-46	151,165	1,210	42	414	299,800

Time basis: Pacific war time up to 2 a.m., Sept. 30, 1945; Pacific standard time thereafter. To convert war time to standard time, subtract 1 hour.

Rye Patch Reservoir near Rye Patch, Nev.

Location.- Mercury indicating gage, lat. 40°28'15", long. 118°18'20", in NE¼ sec. 18, T. 30 N., R. 33 E., at control works at left end of Rye Patch Dam, 2 miles northwest of Rye Patch. Datum of gage is at mean sea level (Southern Pacific Railroad datum).

Drainage area.- 13,700 square miles.

Records available.- February 1936 to September 1946.

Extremes.- Maximum contents during year, 196,900 acre-feet Apr. 9 (elevation, 4,134.62 feet); minimum, 143,300 acre-feet Sept. 30 (elevation, 4,129.52 feet).
1936-46: Maximum contents, that of Apr. 9, 1946; minimum since operation began, 1,760 acre-feet Oct. 15, 1937.

Remarks.- Reservoir is formed by earth-fill, rock-faced dam; storage began Feb. 20, 1936. Capacity, 179,100 acre-feet (revised) between elevations 4,072.5 feet (sill of trash-rack structure) and 4,133.0 feet (top of spillway gates). Dead storage negligible. Elevation of spillway (gate sill) is 4,116 feet. Water is used for irrigation on Humboldt project.

Contents, in acre-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	168,800	171,300	180,600	186,000	147,200	160,700	187,100	165,800	166,800	174,400	165,800	153,100
2	168,600	171,200	180,400	184,000	147,200	159,800	188,400	164,800	166,700	175,000	165,100	152,400
3	168,600	172,200	180,200	182,400	148,100	162,500	189,500	163,500	166,700	175,900	164,500	151,700
4	169,300	171,400	180,400	179,500	148,600	163,400	190,900	161,500	167,700	175,300	163,700	151,000
5	169,300	171,600	181,300	178,600	149,000	163,500	192,200	159,900	167,700	175,700	163,400	151,800
6	169,300	172,200	180,600	176,600	149,200	164,500	193,600	158,000	167,900	175,700	162,700	151,300
7	168,800	172,600	181,700	174,300	150,500	165,500	195,000	156,700	168,000	175,700	162,200	151,400
8	168,600	172,700	182,800	172,200	150,900	166,300	195,500	156,300	168,600	175,000	162,700	150,600
9	168,600	172,500	182,900	170,200	151,100	167,000	196,900	155,400	168,800	175,200	161,900	150,600
10	169,000	172,200	182,800	168,600	151,800	167,600	196,500	154,800	169,300	175,400	161,700	150,300
11	168,000	172,800	183,500	166,100	152,100	168,100	195,400	153,600	168,900	174,500	161,300	149,400
12	169,300	173,500	183,900	163,600	152,500	167,600	194,600	151,300	169,600	174,300	160,800	149,000
13	169,500	173,700	183,700	161,300	153,100	168,800	192,800	150,300	169,000	173,900	160,500	148,600
14	169,700	174,500	183,700	159,300	153,300	170,900	191,100	150,000	169,500	173,400	160,200	147,900
15	169,500	173,100	183,800	157,500	153,700	170,500	189,500	149,500	169,900	173,100	160,600	147,500
16	169,000	173,900	184,000	155,600	154,100	172,500	188,300	148,500	170,400	172,600	160,000	146,900
17	169,700	175,400	184,300	153,600	154,800	173,400	186,500	147,300	171,300	172,000	159,800	146,000
18	170,000	175,700	184,800	151,800	155,400	174,200	185,200	146,500	171,600	171,600	159,600	146,600
19	170,100	176,300	185,100	149,700	155,900	174,700	183,900	146,000	171,800	171,100	159,200	146,100
20	170,300	176,700	185,300	147,600	156,300	174,800	182,000	148,500	170,400	170,300	158,600	146,000
21	170,700	176,900	185,400	145,600	156,200	178,000	180,700	150,300	171,300	169,500	158,200	145,600
22	171,600	177,100	185,500	143,600	156,900	177,700	179,100	151,000	170,300	168,800	158,000	145,300
23	170,700	177,500	185,900	144,300	157,400	179,100	177,500	152,700	171,600	168,200	157,900	145,000
24	170,100	177,800	186,200	145,600	157,700	180,600	176,400	154,700	172,100	168,100	157,700	145,000
25	170,100	178,400	186,800	146,000	158,300	181,200	175,500	155,500	172,000	168,100	157,100	144,600
26	170,300	178,500	187,100	146,400	158,700	182,400	174,300	157,500	172,000	167,000	156,800	144,300
27	169,900	178,600	187,800	146,900	158,000	183,000	173,200	159,400	172,100	167,400	156,200	144,600
28	170,100	179,100	187,500	147,200	160,800	183,600	171,200	160,900	172,200	167,000	155,900	144,500
29	170,500	179,500	188,400	147,600	-	184,100	168,900	162,700	173,200	166,600	155,300	143,900
30	168,400	179,900	188,100	148,100	-	185,400	167,400	163,800	173,700	166,800	154,500	143,300
31	169,700	-	187,600	147,900	-	187,600	-	165,700	-	166,600	153,900	-

Monthly elevation and contents, water year October 1945 to September 1946

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	4,132.04	168,800	+2,500
Nov. 1	4,132.27	171,300	+9,300
Dec. 1	4,133.14	180,600	+5,400
Calendar year 1945	-	-	+23,500
Jan. 1	4,133.63	186,000	-38,800
Feb. 1	4,129.92	147,200	+13,500
Mar. 1	4,131.26	160,700	+26,400
Apr. 1	4,133.73	187,100	-21,300
May 1	4,131.75	165,800	+1,000
June 1	4,131.85	166,800	+7,600
July 1	4,132.56	174,400	-8,600
Aug. 1	4,131.75	165,800	-12,700
Sept. 1	4,130.51	153,100	-9,500
Oct. 1	4,029.56	143,600	-
Water year 1945-46	-	-	-25,200

Humboldt River near Rye Patch, Nev.

Location.- Water-stage recorder, lat. 40°27'30", long. 118°18'30", in NE¼ sec. 18 T. 30 N., R. 33 E., 1,000 feet downstream from Rye Patch Dam and 1½ miles northwest of Rye Patch. Prior to Oct. 13, 1945, at site half a mile downstream at different datum.

Drainage area.- 13,700 square miles.

Records available.- October 1935 to September 1941 and October 1943 to September 1946. January 1896 to December 1909, September 1910 to September 1922, and September 1924 to September 1932 (fragmentary) at site near Oreana, 7 miles downstream, published as Humboldt River near Oreana.

Average discharge.- 31 years (1899-1909, 1910-16, 1917-22, 1930-32, 1935-41, 1943-46), 209 second-feet.

Extremes.- Maximum daily discharge during year, 1,730 second-feet Apr. 28-30; minimum daily, 3.5 second-feet Mar. 4 (gage height, 1.08 feet).
1896-1922, 1924-32, 1935-41, 1943-46: Maximum discharge, 3,050 second-feet May 12, 1897 (gage height, 12.0 feet, site and datum then in use); practically no flow during some periods in 1905, 1915, 1918-20, 1931-32, 1935-41, 1943-45.

Remarks.- Records good. Flow completely regulated by Rye Patch Reservoir (see preceding page) and slightly regulated by Humboldt (Taylor-Pitt) Reservoirs. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a5	7.4	6.2	1,100	8.9	4.9	168	1,720	a315	350	276	220
2	a5	7.0	5.7	1,190	8.9	4.4	168	1,720	a575	347	263	220
3	a5	7.4	5.7	1,300	8.3	3.8	168	1,710	a605	345	257	214
4	a5	7.0	5.7	1,290	8.3	3.5	168	1,710	a620	342	270	194
5	a6	7.4	5.7	1,430	8.3	3.8	138	1,710	a620	337	253	194
6	22	7.0	5.7	1,520	7.4	3.8	117	1,700	a620	335	244	194
7	26	7.0	6.2	1,510	7.0	3.8	117	1,700	a620	333	228	186
8	26	7.0	5.7	1,900	6.6	3.8	119	1,690	a620	330	196	168
9	26	6.6	5.7	1,490	6.6	14	130	1,710	a620	328	181	154
10	26	6.6	5.7	1,490	6.6	52	808	1,680	620	390	194	141
11	26	6.2	5.7	1,480	5.7	50	1,470	a1,680	616	430	163	157
12	a14	6.2	6.2	1,470	7.0	52	1,470	a1,670	616	427	146	188
13	a11	5.7	5.7	1,460	6.6	66	1,470	a1,670	620	445	136	181
14	22	5.7	5.7	1,450	6.6	66	1,530	a1,660	620	507	143	163
15	25	6.2	5.7	1,440	6.2	66	1,710	a1,660	620	494	159	163
16	42	6.6	5.3	1,430	5.7	66	1,710	1,650	620	491	154	155
17	30	5.7	5.3	1,420	6.2	66	1,700	1,650	620	457	154	132
18	20	5.7	5.3	1,410	5.7	66	1,700	1,150	623	430	154	131
19	8.3	5.7	5.3	1,400	5.7	66	1,690	430	623	436	154	110
20	7.9	5.3	5.3	1,390	5.7	66	1,680	363	596	436	139	110
21	8.3	5.3	5.7	1,380	5.7	16	1,690	314	523	427	132	110
22	12	5.3	5.7	471	5.7	30	1,690	302	485	413	143	82
23	29	5.3	5.7	16	5.7	45	1,670	265	457	413	168	82
24	44	5.7	5.7	14	5.7	45	1,660	249	a450	427	183	88
25	44	5.3	5.7	12	5.3	82	1,650	246	a420	410	183	105
26	44	5.3	5.7	11	4.9	126	1,650	218	421	381	183	114
27	42	5.3	5.7	10	5.3	141	1,690	179	424	360	183	104
28	43	5.5	5.7	10	4.9	161	1,730	138	373	335	186	95
29	24	5.3	160	10	-	168	1,730	121	345	307	208	71
30	13	5.7	726	9.6	-	168	1,730	a121	350	307	220	83
31	13	-	1,100	9.6	-	168	-	a155	-	289	220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	674.5	44	5	21.8	1,340
November	183.2	7.4	5.3	6.11	363
December	2,145.1	1,100	5.3	69.2	4,250
Calendar year 1945	188,959.8	2,000	0	518	374,800
January	30,123.2	1,520	9.6	972	59,750
February	181.2	8.9	4.9	6.47	359
March	1,877.8	168	3.5	60.6	3,720
April	35,121	1,730	117	1,171	69,660
May	32,941	1,720	121	1,063	65,340
June	16,257	623	315	542	32,250
July	12,059	507	289	389	23,920
August	5,873	276	136	189	11,650
September	4,309	220	71	144	8,550
Water year 1945-46	141,745.0	1,730	3.5	388	281,200

a No gage-height record; discharge computed on basis of discharge measurements of reservoir seepage when gates were closed, interpolated, or on record of reservoir release.

Marys River below Hot Springs Creek, near Deeth, Nev.

Location.- Water-stage recorder, lat. 41°14', long. 115°17', in NW¼ sec. 25, T. 39 N., R. 59 E., 300 feet downstream from Hot Springs Creek, 7¼ miles north of Crops Ranch, and 13¼ miles north of Deeth.

Drainage area.- 415 square miles.

Records available.- October 1943 to September 1946.

Extremes.- Maximum discharge during year, 508 second-feet Apr. 21 (gage height, 5.18 feet); minimum, 0.8 second-foot Aug. 20.
1943-46: Maximum discharge, 676 second-feet May 9, 1945 (gage height, 5.99 feet); minimum, 0.2 second-foot Aug. 20-25, 1944. Flood in January 1943 reached a stage of 7.2 feet, from floodmarks (discharge, 1,030 second-feet by slope-area method).

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 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	8.2	21	34		71	135	406	156	22	5.6	1.0
2	2.8	9.2	b20	29		86	123	381	140	21	4.8	1.1
3	2.7	11	b19	b25		77	116	339	134	20	4.3	1.1
4	2.8	13	19	b25		68	114	308	126	18	3.7	1.2
5	2.8	14	17	b25		66	121	291	135	19	3.2	1.6
6	2.8	14	19			84	135	301	151	22	2.8	1.5
7	2.8	14	18			76	152	308	156	20	2.4	1.4
8	2.9	15	b17			77	155	316	145	17	2.1	1.4
9	3.0	15	b15			77	161	304	131	15	2.0	1.5
10	3.2	16	b13		b28	83	168	294	118	14	1.7	1.4
11	3.2	17	b13			*91	171	277	115	12	1.6	1.3
12	3.5	18	b13			94	175	246	115	11	1.6	1.3
13	3.7	19	b13	b23		126	200	215	110	11	1.6	1.4
14	3.8	18	b11			104	236	197	95	10	1.5	1.3
15	3.8	*19	b11			96	265	183	79	9.2	1.3	1.4
16	4.0	18	b11			82	306	171	73	8.7	1.1	1.5
17	4.3	19	b10			79	356	161	69	7.9	1.0	1.6
18	4.6	20	b10			83	394	156	75	6.9	.9	1.6
19	4.8	20	*b10		28	88	442	158	73	6.6	.9	1.7
20	5.8	19	b10		28	90	493	172	65	6.0	.8	1.8
21	6.2	b17	b12		28	100	499	190	56	5.6	.9	1.7
22	7.1	b18	b13		30	105	476	217	48	5.4	1.1	1.6
23	6.4	19	14		40	99	444	246	44	6.4	1.5	1.7
24	6.9	17	15		71	95	418	241	47	6.9	1.3	1.7
25	6.9	18	16	(*) b25	62	94	408	209	57	7.9	1.3	1.7
26	6.6	18	17		53	91	426	186	52	7.4	1.4	1.7
27	6.9	20	18		87	96	446	199	44	6.6	1.3	1.8
28	7.1	21	27		84	108	466	196	37	6.4	1.2	1.8
29	7.1	22	35		-	122	456	188	30	6.2	1.1	2.1
30	7.7	22	34		-	138	426	182	26	6.4	1.0	2.2
31	7.9	-	35		-	142	-	168	-	6.4	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	146.7	7.9	2.6	4.73	291
November	508.4	22	8.2	16.9	1,010
December	526	35	10	17.0	1,040
Calendar year 1945	32,373.5	663	1.2	88.7	64,220
January	760	34	-	24.5	1,510
February	1,015	87	-	36.2	2,010
March	2,888	142	66	93.2	5,730
April	8,883	499	114	296	17,620
May	7,406	406	156	239	14,690
June	2,702	156	26	90.1	5,360
July	348.9	22	5.4	11.3	692
August	57.9	5.6	.8	1.87	115
September	46.1	2.2	1.0	1.54	91
Water year 1945-46	25,288.0	499	.8	69.3	50,160

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

Lamoille Creek near Lamoille, Nev.

Location.- Water-stage recorder, lat. 40°41'30", long. 115°28'30", in NE¼ sec. 6, T. 32 N., R. 58 E., at Lamoille Creek bridge at mouth of canyon, 300 feet downstream from Elko-Lamoille power plant and 3 miles south of Lamoille.

Drainage area.- 25 square miles.

Records available.- May 1915 to June 1923, October 1943 to September 1946.

Extremes.- Maximum discharge during year, 299 second-feet June 5; minimum, 3.2 second-feet Dec. 1.
1915-23, 1943-46: Maximum discharge, probably exceeded 500 second-feet in June 1917 when gage was washed out; minimum, 1 second-foot Jan. 24, 1918.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Records include flow of McDermott ditch which diverts about 200 feet upstream from gage. Elko-Lamoille power plant diverts about 6 miles upstream but flow is returned to channel at power plant 300 feet upstream from station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.1	7.1	5.3		5.3	5.3	10	142	118	168	33	10
2	6.8	7.4	6.2		5.3	5.3	11	148	140	155	30	10
3	6.8	7.4	6.8	a6.0	5.3	5.3	11	170	182	149	27	9.6
4	6.8	7.4	6.5		5.3	5.6	11	178	251	144	25	9.6
5	6.8	7.4	*6.5		5.3	5.6	11	207	270	129	24	10
6	6.8	7.4	6.2	a5.6	5.3	5.9	12	210	257	130	29	9.2
7	6.8	6.8	6.2		5.3	5.9	12	198	237	108	20	8.9
8	6.8	6.8	6.2		5.3	5.9	12	190	239	103	19	8.9
9	6.8	7.4	6.2		5.6	6.2	13	180	255	96	15	8.5
10	7.1	7.8	6.5		5.0	6.8	13	155	254	109	14	8.1
11	7.1	7.4	6.5		5.0	7.1	13	133	234	95	18	7.8
12	8.9	7.1	b6.4	a5.0	b4.8	7.1	14	128	214	103	18	7.4
13	8.9	7.1			b4.8	8.5	16	122	234	101	17	7.1
14	8.1	7.4			b5.0	*7.4	17	117	238	89	16	6.8
15	7.8	7.4			b5.0	7.8	19	118	224	76	15	6.8
16	7.8	7.1	a6.2		b5.0	7.8	24	126	214	69	14	7.1
17	7.8	7.4			b5.0	7.8	35	153	188	63	13	7.4
18	7.4	6.8			b5.2	8.1	49	193	165	62	13	7.4
19	7.4	7.4	a6.0		b5.4	8.5	60	210	179	53	13	6.8
20	7.4	6.2	a6.0		b5.6	9.2	69	220	200	51	13	6.8
21	7.4	6.5	a6.2		b5.8	9.2	73	222	213	50	13	6.5
22	7.4	8.1	a6.6	a5.6	b5.9	8.9	73	200	209	50	14	6.2
23	7.4	7.8			b5.7	8.9	77	170	183	50	14	6.5
24	7.1	7.4			b5.5	8.9	94	145	153	51	13	6.2
25	7.1	7.1			5.3	8.5	120	142	158	60	13	6.2
26	7.1	7.1			5.0	9.2	142	132	172	64	12	5.9
27	6.8	7.1	a7.0		5.0	9.2	151	145	174	46	12	5.9
28	6.8	7.1		*5.6	5.3	9.6	153	142	173	41	12	5.6
29	6.8	6.8		5.6	-	10	162	122	165	38	12	5.6
30	7.1	6.8		5.6	-	10	156	113	163	42	11	5.9
31	7.4	-		5.6	-	11	-	111	-	40	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	225.6	8.9	6.8	7.28	447
November	216.0	8.1	6.2	7.20	428
December	200.5	-	-	6.47	398
Calendar year 1945	20,995.7	451	-	57.5	41,640
January	169.0	-	-	5.45	335
February	147.3	5.9	4.8	5.26	292
March	240.5	11	5.3	7.76	477
April	1,633	162	10	54.4	3,240
May	4,942	222	111	159	9,800
June	6,056	270	118	202	12,010
July	2,585	168	38	83.4	5,130
August	522	33	10	16.8	1,040
September	224.7	10	5.6	7.49	446
Water year 1945-46	17,161.6	270	-	47.0	34,040

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for nearby stations.
b Stage-discharge relation affected by ice.

North Fork Humboldt River at Devils Gate, near Halleck, Nev.

Location.- Water-stage recorder, lat. 41°11', long. 115°29', in SE¼ sec. 13, T. 38 N., R. 57 E., 3 miles north of Devils Gate Ranch, 16 miles north of Halleck, and 26 miles upstream from mouth.

Drainage area.- 830 square miles.

Records available.- November 1913 to September 1921, October 1943 to September 1946.

Extremes.- Maximum discharge during year, 476 second-feet Apr. 19, 20 (gage height, 4.35 feet); minimum, 4.9 second-feet Aug. 20.
1913-21, 1943-46: Maximum discharge, 1,600 second-feet Mar. 2 or 3, 1921; minimum, 1 second-foot Aug. 20-28, Sept. 30, 1913.

Remarks.- Records good except those for periods of ice effect, which are fair. Many diversions above and below station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	18		40		150	217	280	125	24	10	5.8
2	13	18		35		148	201	268	112	22	9.5	5.8
3	13	18		32		170	182	246	102	22	8.5	5.8
4	13	18		30		125	175	221	90	22	8.0	6.4
5	13	18	22	29		107	223	211	81	22	7.0	7.5
6	13	18		25		142	328	206	76	21	6.7	8.0
7	13	18				103	354	204	78	19	6.4	7.5
8	13	18				188	321	195	89	19	6.1	7.5
9	13	18				192	319	187	89	18	6.1	7.5
10	14	18			23	195	278	206	81	17	6.1	7.5
11	14	19	(*)			246	278	258	74	16	6.4	7.5
12	14	20				*194	347	256	72	16	6.7	7.5
13	14	20				223	393	195	71	15	6.1	7.5
14	14	19		20		197	417	172	68	14	6.1	7.5
15	14	20	20			146	442	162	63	14	5.8	7.5
16	14	20				128	431	150	56	12	5.8	7.5
17	16	21				116	439	138	53	12	5.8	8.0
18	15	19				120	451	125	55	11	5.8	8.5
19	14	20			25	166	460	112	55	10	5.5	8.5
20	15	20			30	221	464	107	51	10	5.5	8.5
21	16	18			40	204	448	106	49	9.0	5.5	8.5
22	*16	19	22		50	178	411	117	46	9.0	5.8	8.0
23	16	21			65	192	376	190	40	12	6.4	8.0
24	16	23		(*)	90	211	354	290	38	71	6.7	8.0
25	16	23	25		105	180	340	238	35	22	6.7	8.5
26	16	22	30	22	130	155	334	174	36	16	7.5	7.5
27	16	21	35		170	202	330	169	36	14	6.7	7.5
28	17	21	40		160	288	330	190	33	14	6.4	8.5
29	17	23	39		-	323	317	182	28	12	6.4	9.0
30	17	22	37		-	290	296	156	26	12	6.1	9.0
31	18	-	38		-	246	-	142	-	12	6.1	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	456	18	13	14.7	904
November	591	23	18	19.7	1,170
December	748	40	-	24.1	1,480
Calendar year 1945	36,377.7	538	-	99.7	72,150
January	713	40	-	23.0	1,410
February	1,279	170	-	45.7	2,540
March	5,746	323	103	185	11,400
April	10,256	464	175	342	20,340
May	5,853	290	106	189	11,610
June	1,908	125	26	63.6	3,780
July	539.0	71	9.0	17.4	1,070
August	204.2	10	5.5	6.59	405
September	230.3	9.0	5.8	7.68	457
Water year 1945-46	28,523.5	464	5.5	78.1	56,570

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 14, 18-26, Dec. 1 to Mar. 1 (no gage-height record Jan. 17-23, Jan. 28 to Mar. 1; discharge computed on basis of weather records and records for stations on nearby streams).

South Fork Humboldt River near Lee, Nev.

Location.- Water-stage recorder, lat. 40°34', long. 115°33', in SE¼ sec. 16, T. 31 N., R. 57 E., 400 feet downstream from Kleckner Creek and 2½ miles east of Lee.

Drainage area.- 54 square miles.

Records available.- February 1945 to September 1946.

Extremes.- Maximum discharge during year, 487 second-feet June 5 (gage height, 2.86 feet); minimum, 4.1 second-feet Sept. 24.
1945-46: Maximum discharge, 815 second-feet June 23, 1945 (gage height, 3.70 feet); minimum, that of Sept. 24, 1946.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	11	10	b18		17	46	282	235	210	37	7.6
2	9.5	11	b10	b18		19	45	276	255	192	32	7.6
3	9.1	11	b10	b18		20	42	282	313	176	30	7.6
4	9.5	11	11	b17		21	43	307	400	166	27	8.7
5	9.9	11	*11	b16		21	47	345	439	157	24	11
6	9.5	11	11			22	50	379	432	136	22	9.5
7	9.5	9.9	11			20	52	376	418	121	21	9.1
8	10	10	b11			21	54	348	418	113	19	9.1
9	10	12	b10			22	52	316	428	109	19	8.7
10	10	13			b16	28	52	282	425	103	18	8.3
11	13	13		b10		32	58	246	407	96	17	7.6
12	16	13				32	72	224	386	98	16	6.8
13	14	13				43	87	213	404	94	14	6.8
14	13	14	b9			38	107	200	404	90	14	6.8
15	12	14				36	125	197	379	82	13	6.8
16	12	13				34	154	202	352	72	11	8.0
17	12	13				34	202	241	310	66	10	8.3
18	12	12				*39	241	298	279	63	10	7.6
19	12	13				51	255	339	273	59	9.9	7.2
20	12	10	b10			52	241	359	282	55	9.9	7.2
21	11	b11			b17	47	221	362	301	52	9.9	6.8
22	12	b12			b19	43	210	348	298	52	13	5.5
23	9.5	13	b12		b20	43	227	301	273	51	10	4.9
24	9.9	12	b14		b23	41	264	270	235	48	10	4.6
25	9.9	12	b15	b13	b22	39	301	255	232	60	12	4.6
26	9.9	12	b15		b21	40	313	255	238	100	9.9	4.6
27	9.9	12	16		b19	45	332	261	238	54	9.1	4.9
28	9.5	12	21	(*)	b18	48	332	273	232	46	9.1	4.9
29	9.5	13	29		-	50	332	244	219	42	8.7	4.9
30	12	13	22		-	50	310	235	210	48	8.3	5.2
31	12	-	20		-	48	-	232	-	45	8.0	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	339.6	16	9.1	11.0	674
November	360.9	14	9.9	12.0	716
December	381	29	-	12.3	756
Calendar year	-	-	-	-	-
January	389	18	-	12.5	772
February	479	23	-	17.1	950
March	1,096	52	17	35.4	2,170
April	4,867	332	42	162	9,650
May	8,748	379	197	282	17,350
June	9,715	439	210	324	19,270
July	2,856	210	42	92.1	5,660
August	481.8	37	8.0	15.5	956
September	211.2	11	4.6	7.04	419
Water year 1945-46	29,924.5	439	-	82.0	59,340

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

South Fork 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 1946.

Average discharge.- 38 years (1896-1903, 1904-9, 1910-18, 1923-26, 1927-32, 1936-46), 135 second-feet.

Extremes.- Maximum discharge during year, 740 second-feet Apr. 20 (gage height, 3.83 feet); minimum daily, 5.8 second-feet Sept. 3.
1896-1922, 1923-32, 1936-46: 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 or doubtful or no gage-height record, which are fair. Many diversions above station for irrigation. Station is below all diversions except those of Hunter & Banks Ranch, 3 miles downstream.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	46	70	60		297	a330	640	381	231	55	6.2
2	29	45	64			251	313	584	351	226	47	6.2
3	28	45	60	50		237	310	540	351	210	39	5.8
4	28	44	68			237	317	524	416	202	28	6.6
5	29	42	63			189	344	528	528	207	24	7.8
6	30	43	69			189	341	560	600	187	21	8.3
7	29	46	74	40		175	334	588	580	166	17	7.8
8	30	45	64			159	348	572	552	150	16	7.8
9	29	45	30			175	344	528	544	132	15	8.3
10	30	48	30		40	189	324	536	552	124	14	7.8
11	32	57				215	297	520	552	115	14	7.4
12	33	60				197	297	440	528	109	17	7.0
13	35	59				284	334	377	504	105	17	7.0
14	35	52				393	377	344	508	100	14	7.0
15	35	57				*317	424	310	468	95	13	6.6
16	35	64	25			304	468	275	436	85	11	7.4
17	36	66	(*)			d288	536	269	400	77	10	6.8
18	36	66				d278	604	294	348	75	8.8	9.9
19	36	68			45	313	664	344	310	70	7.8	10
20	*36	75		35	50	337	724	389	304	57	7.8	10
21	36	57		(*)	70	307	712	440	310	47	7.0	9.4
22	37	63	30		80	a270	668	512	324	45	7.0	8.8
23	36	77			100	a270	644	624	324	44	7.8	9.4
24	36	75			140	a250	644	616	304	48	8.3	10
25	35	63	35		200	a240	672	480	272	51	9.4	11
26	35	63	40		300	a250	700	412	260	86	11	11
27	35	64			400	a300	720	604	248	83	9.9	12
28	35	66	45		381	a350	716	680	257	72	8.8	12
29	35	68			-	a370	704	576	242	60	7.4	12
30	39	72	60		-	a370	696	492	228	56	7.0	13
31	46	-	60		-	a350	-	424	-	60	6.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,046	46	28	33.7	2,070
November	1,741	77	42	58.0	3,450
December	1,292	74	-	41.7	2,560
Calendar year 1945	100,876	1,410	-	276	200,100
January	1,180	-	-	38.1	2,340
February	2,486	400	-	88.8	4,930
March	8,317	393	159	268	16,500
April	14,906	724	297	497	29,570
May	15,022	680	269	485	29,800
June	11,982	600	228	399	23,770
July	3,375	231	44	109	6,690
August	486.6	55	6.6	15.7	965
September	262.3	13	5.8	8.74	520
Water year 1945-46	62,095.9	724	5.8	170	123,200

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station near Lee.
d Doubtful gage-height record; discharge computed on basis of weather records and records for station near Lee.
Note.- Stage-discharge relation affected by ice Dec. 9 to Feb. 27.

Rock Creek near Battle Mountain, Nev.

Location.- Water-stage recorder, lat. 40°51', long. 116°36', in NE¼ sec. 17, T. 34 N., R. 48 E., at mouth of canyon, and 22 miles northeast of Battle Mountain. Former gage at same site but different datum.

Records available.- March 1918 to September 1923, 1924, 1925, 1927-29 (fragmentary), January to September 1946.

Extremes.- Maximum discharge during period January to September 1946, 230 second-feet Mar. 24 (gage height, 2.37 feet); minimum, 1.2 second-feet Sept. 28.
1918-25, 1927-29, 1946: Maximum discharge, 2,240 second-feet Feb. 11, 1921; no flow at times during October, July, August, and September nearly every year.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Several irrigation diversions in valleys above station. Station is above all diversions in Boulder Flat and is below all tributaries. Flow slightly affected by small reservoir in Squaw Valley, 30 miles above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-		84	117	97	102	8.6	21	41
2				-		72	106	89	92	8.6	20	64
3				-		84	138	75	81	17	20	58
4				(*)		61	187	63	70	20	20	62
5				6		43	162	48	62	20	20	67
6						51	189	27	57	20	20	61
7						104	200	26	53	20	20	53
8						95	166	29	61	23	20	39
9				5		87	154	a34	48	25	20	12
10					4	117	134	a37	44	26	18	7.3
11						154	115	a35	38	27	20	5.8
12						136	134	a33	33	27	18	4.6
13						102	169	a31	29		18	3.7
14					(*)	154	189	a29	26		18	3.0
15						104	187	a27	23		9.3	2.7
16						79	189	a26	20		6.7	2.7
17						64	187	25	18		5.8	2.9
18						64	192	25	15		5.3	2.9
19					6	81	194	22	15		8.9	2.9
20					10	108	192	20	11		9.3	2.7
21				4	17	132	169	20	8.3	a23	7.7	2.4
22					30	130	143	a25	7.0		4.9	2.1
23					60	200	126	a100	7.0		4.1	2.1
24					120	205	115	a120	6.5		3.2	1.9
25					150	134	111	a94	6.2		3.2	1.7
26					106	98	110	a110	6.0		4.1	1.4
27					*86	102	110	a140	5.3		4.9	1.3
28					104	132	106	a150	5.1		4.6	1.3
29					-	136	110	a140	8.3		4.2	1.3
30					-	132	102	132	12		4.1	1.3
31					-	117	-	115	-	20	3.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January 4-31	122	-	-	4.36	242
February	761	150	-	27.2	1,510
March	3,362	205	43	108	6,670
April	4,503	200	102	150	8,930
May	1,944	150	20	62.7	3,860
June	959.7	102	5.1	32.0	1,900
July	676.2	27	8.6	21.8	1,340
August	367.2	21	3.2	11.8	728
September	515.0	67	1.3	17.2	1,020
The period	-	-	-	-	26,200

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for nearby stations.
Note.- Stage-discharge relation affected by ice Jan. 4 to Feb. 24.

Little Humboldt River at Chimney dam site, near Paradise Valley, Nev.

Location.- Water-stage recorder, lat. 41°24', long. 117°11', in NE¼ sec. 36, T. 41 N., R. 42 E., at Chimney dam site, 300 feet downstream from confluence of North and South Forks and 25 miles east of Paradise Valley.

Records available.- October 1941 to September 1946.

Extremes.- Maximum discharge during year, 148 second-feet Apr. 4 (gage height, 4.69 feet); no flow Aug. 6-24.
1941-46: Maximum discharge, 4,000 second-feet about Jan. 22, 1943 (gage height, 14.4 feet, from floodmarks) by slope-area method; no flow for several days in 1942, 1945, and 1946.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	3.1	4.7	18		67	72	80	26	4.2	0.6	0.5
2	1.5	3.2	4.4	16		40	71	73	23	5.1	.5	.5
3	1.4	3.1	*4.4	15		41	90	67	21	5.0	.3	.5
4	.9	3.1	4.7	14		26	118	64	18	4.8	.2	.7
5	.9	3.1	5.1	14		26	92	62	18	4.7	.1	.6
6	.9	3.0	5.8	6.8		27	102	61	18	4.2	0	.7
7	1.2	3.1	5.5			32	102	61	18	4.2	0	.7
8	1.2	3.1	4.5		5	40	91	60	16	3.7	0	.8
9	1.4	3.0	3.8			36	86	60	15	2.9	0	.8
10	1.2	3.7	3.4	6		45	80	61	14	2.9	0	.8
11	1.3	4.1	3.4			53	72	60	14	2.7	0	.8
12	1.4	4.2	3.0			66	69	56	13	2.5	0	.8
13	1.4	3.9	3.5			57	78	49	12	2.0	0	.8
14	2.1	3.8	3.8			67	86	45	12	1.6	0	.8
15	2.3	4.8	3.8			50	92	42	11	1.4	0	.8
16	2.3	4.8	3.8		5.8	43	102	40	10	1.2	0	.9
17	2.3	5.5	3.7	(*)	5.8	37	110	37	9.8	.9	0	.9
18	2.4	5.0	3.5		6.1	36	121	34	9.6	.9	0	1.1
19	2.5	5.5	3.7		6.8	35	126	32	9.8	.8	0	1.0
20	2.9	5.0	4.5		*9.0	54	128	32	8.3	.6	0	.9
21	3.2	3.7	4.7	5	12	78	116	33	6.6	.5	0	.9
22	2.9	3.9	4.4		16	77	106	34	6.6	.4	0	.9
23	2.9	4.2	4.7		25	80	98	36	6.3	.8	0	.9
24	3.0	4.7	4.8		44	91	96	36	6.1	1.2	0	1.3
25	2.5	5.1	4.4		56	79	93	33	5.9	1.0	.8	1.1
26	2.1	5.8	5.1		38	65	93	34	5.8	2.3	3.2	1.1
27	2.4	5.8	12		34	83	96	45	4.8	2.3	3.1	1.3
28	2.4	5.8	22		60	98	93	47	4.4	1.7	1.4	1.4
29	2.4	6.6	32		-	96	89	44	4.1	1.3	.8	1.3
30	2.5	5.9	24		-	95	84	38	3.5	1.0	.6	1.3
31	3.2	-	20		-	83	-	31	-	.7	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	62.6	3.2	0.9	2.02	124
November	129.6	6.6	3.0	4.32	257
December	221.1	32	3.0	7.13	439
Calendar year 1945	12,797.4	249	0	35.1	25,390
January	214.8	18	-	6.93	426
February	393.5	60	-	14.1	780
March	1,803	98	26	58.2	3,580
April	2,852	128	69	95.1	5,660
May	1,487	80	31	48.0	2,950
June	350.6	26	3.5	11.7	695
July	69.5	5.1	.4	2.24	138
August	12.1	3.2	0	.39	24
September	26.9	1.4	.5	.90	53
Water year 1945-46	7,622.7	128	0	20.9	15,130

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Jan. 7 to Feb. 15.

Little Humboldt River near Paradise Valley, Nev.

Location.- Water-stage recorder, lat, 41°25', long, 117°24', in NE¼ sec. 19, T. 41 N., R. 41 E., 300 feet south of Humboldt Hot Spring, 4½ miles downstream from Bullshead Ranch, and 8½ miles southeast of Paradise Valley.

Drainage area.- 1,030 square miles.

Records available.- October 1921 to June 1928 (fragmentary), October 1942 to September 1946.

Extremes.- Maximum discharge during year, 108 second-feet Apr. 22 (gage height, 5.37 feet); minimum daily, 7.2 second-feet July 23, Aug. 18, 19.
1921-28 1943-46: Maximum discharge, 500 second-feet Feb. 23, 1927 (gage height, 12.1 feet, datum then in use); from rating curve extended above 150 second-feet; minimum, 5 second-feet Dec. 28, 1924.

Remarks.- Records good. Bullshead Ranch diverts above station for irrigation. Station is above all diversions in Paradise Valley.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	9.0	9.2	14	9.3	30	82	75	32	8.5	7.6	7.6
2	7.8	9.0	8.9	15	9.2	44	76	72	28	8.3	7.5	7.6
3	8.1	8.8	8.8	14	9.0	39	72	70	24	8.3	7.5	7.6
4	8.1	8.8	8.9	14	9.0	32	72	65	21	8.5	7.5	7.8
5	8.2	8.8	9.7	14	9.0	31	92	60	19	8.3	7.5	7.6
6	8.2	9.0	9.9	12	9.0	27	94	56	17	8.2	7.4	7.6
7	8.2	8.9	10	10	9.3	26	89	54	17	8.2	7.4	7.5
8	8.2	8.9	10	9.9	9.3	28	92	53	18	8.1	7.4	7.6
9	8.2	8.9	9.2	9.2	9.3	33	87	54	19	8.1	7.4	7.6
10	8.2	9.2	8.8	9.3	9.3	34	82	56	16	8.1	7.4	7.8
11	8.2	9.3	8.8	9.5	9.3	37	79	57	15	7.8	7.4	7.8
12	8.2	9.6	9.0	9.5	9.3	42	68	56	14	7.8	7.4	7.6
13	8.2	9.6	9.2	9.3	9.2	49	64	51	14	7.8	7.4	7.8
14	8.2	9.2	9.0	9.0	9.2	48	66	47	13	7.5	7.4	7.8
15	8.3	9.5	8.8	8.9	9.3	49	71	43	13	7.6	7.4	7.9
16	8.5	9.6	8.9	8.9	9.3	48	78	40	12	7.6	7.4	7.9
17	8.6	10	8.9	8.6	9.5	44	80	37	12	7.5	7.4	8.1
18	8.6	9.7	8.9	8.8	9.5	39	86	34	12	7.5	7.2	8.2
19	8.6	10	8.9	8.8	9.6	35	93	30	11	7.5	7.2	8.1
20	9.0	9.7	8.9	8.8	9.6	38	101	28	11	7.4	7.4	7.9
21	9.0	8.9	8.8	8.8	9.6	51	104	28	11	7.4	7.4	7.9
22	9.0	8.9	8.2	8.8	10	64	104	28	10	7.4	7.4	8.1
23	9.0	8.8	9.5	8.8	11	71	99	31	9.5	7.2	7.6	7.9
24	8.9	8.9	9.2	9.0	14	69	94	31	9.6	7.4	7.8	8.2
25	8.9	9.5	9.5	9.2	20	71	87	31	9.3	7.5	7.6	7.9
26	9.0	9.7	9.6	9.0	26	74	83	33	9.2	7.9	7.8	8.1
27	8.9	9.7	11	9.0	36	67	84	35	9.0	7.6	7.6	8.2
28	8.6	9.9	15	9.0	33	68	81	35	9.0	7.5	7.6	8.3
29	8.6	9.7	15	9.2	-	80	81	39	8.6	7.5	7.6	8.2
30	9.0	9.7	15	9.3	-	86	78	38	8.5	7.5	7.6	8.2
31	9.0	-	14	9.2	-	89	-	35	-	7.6	7.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	263.3	9.0	7.8	8.49	522
November	279.2	10	8.8	9.31	554
December	308.5	15	8.8	9.95	612
Calendar year 1945	12,963.5	180	7.2	35.5	25,720
January	310.8	15	8.6	10.0	616
February	345.1	36	9.0	12.3	684
March	1,543	89	26	49.8	3,060
April	2,519	104	64	84.0	5,000
May	1,402	75	28	45.2	2,780
June	431.7	32	8.5	14.4	856
July	241.1	8.5	7.2	7.78	478
August	231.8	7.8	7.2	7.48	460
September	236.4	8.3	7.5	7.88	469
Water year 1945-46	8,111.9	104	7.2	22.2	16,090

Martin Creek near Paradise Valley, Nev.

Location.- Water-stage recorder, lat. 41°32'00", long. 117°25'40", in NW¼SW¼ sec. 12, T. 42 N., R. 40 E., 0.6 mile upstream from Humboldt County Fish Hatchery and 7 miles northeast of Paradise Valley.

Drainage area.- 172 square miles.

Records available.- October 1921 to September 1946.

Average discharge.- 24 years (1921-26, 1927-46), 28.3 second-feet.

Extremes.- Maximum discharge during year, 269 second-feet Dec. 28 (gage height, 1.99 feet); minimum, 3.3 second-feet Nov. 21, 22, Dec. 2.
1921-46: Maximum discharge, 9,000 second-feet Jan. 21, 1943 (gage height, 11.1 feet, datum then in use), by slope-area method; minimum, 1.8 second-feet (corrected) Feb. 6, 1945.

Remarks.- Records good. No diversions above station.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	9.6	7.2	22	13	50	71	108	47	13	5.2	5.7
2	7.2	9.1	6.7	19	14	47	79	105	46	12	5.2	5.7
3	6.7	8.6	9.6	20	15	40	77	103	47	11	5.2	5.7
4	6.7	8.6	11	18	11	23	76	106	48	10	4.9	5.7
5	6.7	8.6	11	17	11	31	79	112	48	9.1	4.9	6.2
6	6.7	9.1	11	10	14	59	82	112	45	8.6	5.2	5.7
7	6.7	8.6	11	11	13	48	84	106	42	8.6	5.2	6.2
8	7.2	8.1	9.1	15	11	47	85	99	38	7.6	5.2	6.2
9	7.6	8.1	5.7	11	11	64	82	94	36	7.2	5.2	6.2
10	7.6	8.6	9.1	13	13	76	74	92	34	7.2	4.9	6.2
11	7.6	9.1	9.1	13	14	79	80	80	33	6.2	4.9	6.2
12	7.6	9.1	9.1	11	11	82	97	72	31	6.2	5.2	6.2
13	7.6	8.6	8.1	9.1	11	101	105	71	30	6.2	5.2	6.2
14	7.2	8.1	7.6	11	12	52	112	70	26	5.7	5.7	6.2
15	7.6	9.6	8.1	12	13	50	122	68	26	5.2	5.2	6.2
16	7.6	10	8.6	13	15	39	137	68	24	5.2	5.2	6.7
17	7.6	10	10	12	14	39	154	71	24	4.9	5.2	6.7
18	7.6	8.6	9.6	12	15	41	162	77	24	4.9	5.2	6.7
19	7.6	10	8.1	11	19	64	166	79	23	4.9	5.2	6.2
20	8.6	9.1	8.1	12	24	90	150	79	22	4.9	5.2	6.2
21	8.6	6.7	9.1	11	22	85	139	77	20	4.9	5.2	6.2
22	8.1	8.1	11	13	23	85	130	74	19	4.9	5.7	6.2
23	8.1	9.6	13	13	38	108	130	71	19	5.2	5.7	6.2
24	8.1	10	12	40	47	85	134	62	20	5.7	6.7	6.2
25	8.1	11	12	24	33	62	141	60	18	5.2	6.7	6.2
26	8.1	10	12	12	23	77	148	68	16	5.7	6.2	6.2
27	8.1	10	14	12	60	103	134	66	15	5.7	5.7	6.2
28	8.1	10	115	13	66	99	130	58	15	5.7	5.7	6.2
29	8.1	11	80	13	-	94	128	55	14	5.2	5.7	6.2
30	9.1	9.1	39	12	-	85	118	51	14	5.2	5.7	6.2
31	10	-	25	11	-	77	-	48	-	5.2	5.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	239.4	10	6.7	7.72	475
November	274.7	11	6.7	9.16	545
December	519.9	115	5.7	16.8	1,030
Calendar year 1945	17,449.8	1,020	4.9	47.8	34,610
January	446.1	40	9.1	14.4	885
February	586	66	11	20.9	1,160
March	2,082	108	23	67.2	4,130
April	3,406	166	71	114	6,760
May	2,462	112	48	79.4	4,880
June	866	48	14	28.9	1,720
July	207.2	13	4.9	6.68	411
August	168.0	6.7	4.9	5.42	333
September	185.0	6.7	5.7	6.17	367
Water year 1945-46	11,442.3	166	4.9	31.3	22,700

Cottonwood Creek at Paradise Valley, Nev.

Location.- Water-stage recorder, lat. 41°31'00", long. 117°32'30",, in NW¼ sec. 25, T. 42 N., R. 39 E., at highway bridge, 300 feet west of Paradise Valley post office.

Drainage area.- 62 square miles.

Records available.- October 1944 to September 1946.

Extremes.- Maximum discharge during year, 264 second-feet Dec. 28 (gage height, 2.14 feet); minimum daily, 0.2 second-foot Sept. 26-30.
1944-46: Maximum discharge, that of Dec. 28, 1945; minimum daily, that of Sept. 26-30, 1946.

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

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	0.3	0.5	22	7.5	33	41	31	13	0.7	0.7	0.3
2	.4	.3	.5	25	8.0	36	38	25	11	.5	.7	.3
3	.3	.3	*.5	29	5.8	33	36	22	9.3	.5	.7	.3
4	.3	.3	.5	22	6.0	30	33	22	4.6	.7	.7	.3
5	.3	.3	.5	16	6.5	25	34	27	2.5	.7	.5	.4
6	.3	.3	.5	5.0	4.6	28	37	28	2.5	.7	1.0	.4
7	.3	.4	.5	5.0	4.0	28	42	29	5.8	1.0	1.3	.4
8	.3	.4	.4	6.0	4.0	27	44	31	1.9	1.0	1.6	.3
9	.3	.4	.3	5.0	4.0	32	33	34	1.3	1.0	1.6	.3
10	.3	.4	.3	5.5	5.0	38	28	33	1.0	1.0	1.3	.3
11	.3	.5	.3	5.5	4.0	43	28	28	1.0	1.0	1.6	.3
12	.3	.5	.3	4.5	3.0	40	40	21	1.0	1.3	1.3	.4
13	.3	.5	.5	4.0	3.0	52	47	14	1.0	1.3	1.3	.4
14	.3	.5	1.0	4.5	3.0	42	50	13	1.0	1.6	1.9	.3
15	.3	.5	1.6	5.0	3.0	34	53	13	1.0	1.6	1.9	.3
16	.3	.7	1.0	5.5	3.3	28	61	16	.7	1.3	1.6	.4
17	.3	.5	.5	*5.5	4.2	26	73	14	1.0	1.3	1.3	.4
18	.3	.5	.5	5.0	4.2	24	80	15	.7	1.0	1.0	.3
19	.3	.5	.7	4.5	7.7	33	84	15	.7	1.0	1.0	.3
20	.3	.5	.7	4.2	*9.3	60	80	15	.7	1.0	.7	.3
21	.3	.4	1.0	4.0	9.9	91	75	14	.7	1.0	.7	.3
22	.3	.4	1.6	4.2	9.9	80	70	14	.7	1.3	.7	.3
23	.3	.4	1.9	6.3	14	64	69	15	.7	1.3	.7	.3
24	.3	.5	1.3	38	27	56	68	16	1.0	1.3	.7	.3
25	.3	.5	1.6	34	26	46	70	12	1.0	1.3	.5	.3
26	.3	.5	1.6	6.5	21	47	69	23	.7	1.3	.4	.2
27	.3	.5	2.2	6.5	38	52	61	24	.7	1.0	.4	.2
28	.3	.5	82	6.5	43	55	51	21	.7	.7	.4	.2
29	.3	.5	174	6.0	-	52	49	16	.7	.7	.4	.2
30	.3	.5	53	6.0	-	52	41	14	.7	.7	.3	.2
31	.3	-	29	7.0	-	46	-	14	-	1.0	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9.6	0.5	0.3	0.31	19
November	13.3	.7	.3	.44	26
December	360.8	174	.3	11.6	716
Calendar year 1945	6,052.6	* 174	.3	16.6	12,000
January	313.7	38	4.0	10.1	622
February	288.9	43	3.0	10.3	573
March	1,333	91	24	43.0	2,640
April	1,585	84	28	52.8	3,140
May	629	34	12	20.3	1,250
June	69.3	13	.7	2.31	137
July	31.8	1.6	.5	1.03	63
August	29.2	1.9	.3	.94	58
September	9.2	.4	.2	.31	18
Water year 1945-46	4,672.8	174	.2	12.8	9,260

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Jan. 6-19, 21, 26 to Feb. 2, 4, 5, 7-15.

Pyramid Lake near Nixon, Nev.

Location.- Bench mark N 21 of U. S. Coast and Geodetic Survey, lat. 39°50'30", long. 119°28'00", in SE¼SE¼ 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 1946. Elevations prior to January 1934 referred to adjustment of 1912, datum of which is 0.57 foot above that of datum of 1929.
Extremes.- 1926-46: Maximum elevation observed, 3,847.35 feet, datum of 1929, June 1926; minimum observed, 3,814.01 feet Sept. 19, 1946.
Cooperation.- Records furnished by Office of Indian Affairs.

Elevation, in feet, above mean sea level, water year 1945-46

Oct. 28.....3,815.25	Feb. 16.....3,814.68	June 18.....3,815.21
Nov. 14.....3,814.90	Mar. 28.....3,814.98	July 20.....3,814.92
Dec. 26.....3,814.69	Apr. 22.....3,815.10	Aug. 22.....3,814.55
Jan. 18.....3,815.75	May 29.....3,815.51	Sept.19.....3,814.01

Truckee River near Truckee, Calif.

Location.- Water-stage recorder, lat. 39°17'30", long. 120°12'30", in SW¼NE¼ sec. 28, T. 17 N., R. 16 E., 1.4 miles upstream from Donner Creek and 2½ miles southwest of Truckee.
Drainage area.- 548 square miles.
Records available.- December 1944 to September 1946.
Extremes (regulated).- Maximum discharge during year, 838 second-feet Apr. 25 (gage height, 2.95 feet); minimum, 46 second-feet Feb. 17.
1944-46: Maximum discharge, 1,110 second-feet Feb. 2, 1945 (gage height, 3.34 feet); minimum, 23 second-feet Jan. 2, 1945.
Remarks.- Records good. Flow regulated at Lake Tahoe.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	183	256	256	193	77	256	104	646	370	297	342	260
2	186	241	252	173	77	215	96	653	394	293	365	260
3	186	233	256	160	79	186	94	683	399	289	436	260
4	186	230	260	150	79	173	99	569	404	280	436	260
5	186	230	249	141	74	132	104	592	370	276	430	260
6	193	218	218	129	72	138	110	610	289	272	430	264
7	200	211	215	123	70	138	104	598	268	268	430	264
8	200	163	208	118	79	132	101	569	252	264	430	264
9	200	101	208	107	74	132	99	534	230	301	430	264
10	208	89	211	112	82	147	104	517	222	351	430	264
11	215	79	215	104	77	138	126	523	200	351	430	264
12	208	82	197	104	74	144	170	511	193	351	430	264
13	204	79	163	99	79	176	204	500	193	351	430	264
14	204	79	135	91	77	141	222	478	190	346	430	264
15	208	79	86	91	68	126	268	489	183	346	430	264
16	208	89	72	86	64	115	346	500	173	346	430	276
17	193	186	72	86	64	115	404	523	163	342	430	264
18	179	186	74	84	70	115	473	546	160	342	430	264
19	176	200	77	84	91	115	489	557	160	342	430	264
20	176	260	79	82	94	107	430	546	163	342	430	264
21	176	280	204	82	94	99	384	473	163	342	430	264
22	176	280	241	74	91	94	384	394	150	342	436	264
23	176	280	166	74	91	89	420	360	138	342	436	166
24	179	280	141	74	94	86	468	342	123	370	436	68
25	179	280	135	74	101	91	563	356	156	360	436	68
26	179	280	120	74	132	112	727	384	256	346	436	68
27	179	276	120	77	160	135	683	337	306	342	436	68
28	176	268	272	77	204	141	702	332	297	346	436	68
29	233	260	462	77	-	135	696	332	297	346	436	66
30	340	256	306	74	-	126	665	337	297	342	351	70
31	280	-	230	72	-	112	-	356	-	342	260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,172	340	176	199	12,240
November	6,031	280	79	201	11,960
December	5,900	462	72	190	11,700
Calendar year 1945	85,149	667	49	233	168,900
January	3,146	193	72	101	6,240
February	2,488	204	64	83.9	4,930
March	4,161	256	86	134	8,250
April	9,839	727	94	323	19,520
May	15,147	683	332	489	30,040
June	7,159	404	123	239	14,200
July	10,170	370	264	328	20,170
August	12,988	436	260	419	25,760
September	6,442	276	66	215	12,780
Water year 1945-46	89,643	727	64	246	177,800

a No gage-height record; discharge computed on basis of unpublished records for station at Tahoe.

Silver Creek near Silver Lake, Oreg.

Location.- Water-stage recorder, lat. 43°07', long. 121°04', in SW¼ sec. 28, T. 28 S., R. 14 E., 1½ miles downstream from diversion dam of Silver Lake Irrigation District, 1½ 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 1946.

Average discharge.- 34 years (1905-6, 1909-27, 1929-41, 1943-46), including Silver Lake Irrigation District canal, 24.3 second-feet.

Extremes.- Maximum discharge during year, 81 second-feet Apr. 27 (gage height, 2.81 feet); minimum, 2.9 second-feet Sept. 29, 30, but may have been less during periods of ice effect.

1904-7, 1909-46: 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 shifting control Oct. 1 to Jan. 5, May 19 to Sept. 30, which are fair, and those for periods of ice effect or no gage-height record, which are poor. Flow regulated by reservoir (capacity, 800 acre-feet) above diversion dam 1½ miles above station, and by Thompson Valley Reservoir (capacity, 17,400 acre-feet), 11 miles above station, both of which are owned by Silver Lake Irrigation District. No water was diverted above station by Silver Lake Irrigation District canal during year; canal out of repair, may not be used again, according to county watermaster.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	4.2	4.8	15		10	37	68	36	40	13	19
2	10	4.2	4.8	17		12	38	64	35	39	12	19
3	10	4.2	4.5	19		12	35	63	34	39	13	19
4	10	3.9	4.5	19		12	33	63	34	38	12	16
5	10	3.9	4.5	17		11	34	64	35	37	12	8.8
6	9.6	3.9	4.8			12	36	66	34	38	12	8.8
7	9.6	3.9	4.8			12	38	67	33	39	12	8.4
8	9.6	4.2	4.5			13	39	67	32	38	12	8.4
9	9.6	4.2	4.5			14	38	66	33	38	12	8.0
10	9.6	4.5	4.5		b5.5	15	36	63	33	39	12	7.5
11	9.6	4.2	4.5			16	33	62	35	39	12	8.0
12	9.6	4.5				17	34	60	36	39	13	8.0
13		4.2		b9.0		19	37	59	38	39	20	7.5
14		4.8				20	42	58	39	39	20	7.1
15		4.8				19	51	56	40	39	20	7.1
16		4.8	b4.0			17	62	54	42	39	20	6.7
17		4.8				16	66	51	41	38	20	6.7
18		4.8				16	69	50	41	38	20	6.3
19		5.3			6.3	16	75	48	41	37	20	5.9
20		5.1			6.3	16	76	50	40	36	20	5.6
21	a6.9	4.8		9.6	6.3	16	72	55	41	37	20	5.1
22		4.8	4.5	9.2	6.3	19	66	56	40	37	20	5.1
23		4.8	3.9	8.8	6.3	22	62	53	43	36	20	4.8
24		4.8	3.7	8.8	6.3	20	62	48	43	34	19	4.8
25		4.8	3.7	11	6.3	19	64	45	42	25	19	4.5
26		4.8	3.7	16	6.7	19	70	44	41	23	19	4.2
27		4.8	3.9	12	7.5	25	80	42	40	22	19	4.2
28		5.1	4.5	b10	9.6	40	76	40	40	22	19	3.4
29		4.8	5.1	b9.0	-	44	73	39	40	22	19	2.9
30		4.8	7.5	b8.0	-	41	72	39	40	19	19	2.9
31		-	11	b7.0	-	37	-	38	-	14	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	248.3	10	-	8.01	492
November	136.7	5.3	3.9	4.56	271
December	142.2	11	-	4.59	282
Calendar year 1945	4,753.6	43	2.3	13.0	9,420
January	331.4	19	-	10.7	657
February	166.9	9.6	-	5.96	331
March	597	44	10	19.3	1,180
April	1,606	80	33	53.5	3,190
May	1,698	68	38	54.8	3,370
June	1,142	43	32	38.1	2,270
July	1,059	40	14	34.2	2,100
August	519	20	12	16.7	1,030
September	233.7	19	2.9	7.79	464
Water year 1945-46	7,880.2	80	2.9	21.6	15,640

a No gage-height record; discharge interpolated or computed on basis of records for Deep Creek above Adel.
b Stage-discharge relation affected by ice.

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 1946.

Average discharge.- 33 years (1903-5, 1909-12, 1917-21, 1922-46), 146 second-feet.

Extremes.- Maximum discharge during year, 1,720 second-feet Apr. 20 (gage height, 12.28 feet); minimum, 9 second-feet Aug. 15-26.
1903-6, 1908-46: 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, 1924.

Remarks.- Records good October, March, and Apr. 1-20; fair November to February, Apr. 21 to Sept. 30, except those for periods of ice effect, which are poor. Small areas on Silvies River above station are irrigated with flood water.

Rating tables, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 22 to May 15)

Oct. 1 to Apr. 19						Apr. 20 to Sept. 30					
0.8	12.8	2.5	131	8.0	810	0.7	10.8	2.0	87	6.0	539
1.0	20	3.0	182	10.0	1,120	.8	13.7	2.5	135	8.0	810
1.3	35	4.0	292	12.0	1,610	1.0	21	3.0	187	10.0	1,120
1.6	53	5.0	412			1.3	36	4.0	297	12.0	1,610
2.0	83	6.0	539			1.6	55	5.0	416		

Disoharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	30	32			204	792	837	263	70	26	14
2	12	27	30			213	728	767	240	69	23	13
3	12	26	32			236	686	717	218	72	20	13
4	12	26	39			227	657	636	194	81	18	13
5	12	25	37	b90		216	652	575	180	82	17	13
6	12	26	34	(*)		236	714	523	165	72	15	14
7	12	28				249	771	477	150	61	14	15
8	12	25				261	849	471	144	52	14	14
9	12	22				281	888	493	139	49	13	14
10	12	26				336	867	506	128	47	11	15
11	13	30			b35	412	849	486	119	45	11	14
12	13	30				474	846	457	107	41	10	13
13	13	30				577	933	417	100	40	10	13
14	13	30				587	1,060	385	95	32	10	13
15	13	30				495	1,220	361	91	34	10	12
16	13	34	b23			352	1,320	332	95	34	9	12
17	12	34				335	1,450	304	103	36	9	13
18	13	28				362	1,600	271	104	38	9	13
19	13	41				523	1,660	258	76	34	9	14
20	14	b28				592	1,670	226	61	32	9	14
21	14	b25		b38		656	1,570	245	61	30	9	14
22	14	b26	(*)			596	1,420	272	61	28	9	13
23	15	34			b80	558	1,290	289	68	30	9	13
24	16	35				522	1,180	309	78	34	9	13
25	16	36				474	1,110	324	86	27	9	14
26	16	37				491	1,070	343	82	26	10	14
27	16	39		(*)	160	686	1,040	348	74	28	10	14
28	16	42			201	718	963	344	72	28	10	14
29	17	46	b65		-	836	921	340	71	24	11	13
30	20	47			-	856	900	332	70	29	14	13
31	26	-			-	824	-	305	-	26	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	436	26	12	14.1	865
November	943	47	22	31.4	1,870
December	1,031	-	-	33.3	2,040
Calendar year 1945	71,852	1,170	7	197	142,500
January	1,698	-	-	54.8	3,370
February	1,586	201	-	56.6	3,150
March	14,385	856	204	464	28,530
April	31,676	1,670	652	1,056	62,830
May	12,950	837	226	418	25,690
June	3,495	263	61	116	6,930
July	1,331	82	24	42.9	2,640
August	381	26	9	12.3	756
September	404	15	12	13.5	801
Water year 1945-46	70,316	1,670	9	193	139,500

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

Donner und Blitzen River near Frenchglen, Oreg.

Location.- Water-stage recorder and concrete control, lat. 42°47', long. 118°52', in NW¼ sec. 20, T. 32 S., R. 32½ E., 1½ miles upstream from upper diversions for Malheur Migratory Waterfowl Refuge, 2 miles downstream from Fish Creek, and 3½ miles southeast of Frenchglen.
Drainage area.- 180 square miles.
Records available.- December 1937 to September 1946. January 1909 to November 1910, fragmentary records at sites downstream, below several irrigation diversions. May 1910 to September 1921 at site 1½ miles downstream, in SW¼ sec. 8, above diversions, published as Donner und Blitzen River near Diamond. July 1929 to September 1930 in reports of State engineer.
Average discharge.- 16 years (1911-13, 1914-16, 1917-21, 1938-46), 128 second-feet.
Extremes.- Maximum discharge during year, 628 second-feet Dec. 28 (gage height, 3.83 feet); minimum, 17 second-feet Dec. 14 (gage height, 1.79 feet).
1909-21, 1937-46: Maximum discharge, 2,870 second-feet May 5, 1942 (gage height, 5.85 feet), from rating curve extended above 850 second-feet by velocity-area studies and logarithmic plotting; minimum, 8 second-feet Jan. 14, 1940 (ice jams upstream).
Remarks.- Records good except those for Nov. 20 to Feb. 17 and period of no gage-height record, which are fair. No regulation or diversion above station.
Cooperation.- Water-stage recorder inspected by employee of Fish and Wildlife Service.

Rating table, water year 1945-46, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 2 to July 14)

2.0	28	2.8	162
2.2	46	3.1	255
2.4	73	3.4	390
2.6	112		

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	52	44	57	53	86	112	234	211	131	48	39
2	46	50	51	57	50	86	108	244	241	129	46	38
3	46	51	51	60	44	62	106	263	263	129	45	38
4	46	52	47	56	31	53	108	308	263	119	43	38
5	47	53	47	56	54	91	124	331	241	119	42	38
6	47	35	47	37	52	139	146	322	224	114	42	38
7	46	47	46	56	44	73	157	326	199	104	42	38
8	46	47	44	52	36	70	159	336	199	102	42	39
9	46	48	34	36	54	75	139	336	208	99	40	38
10	46	54	52	60	47	91	126	322	202	89	a40	37
11	47	50	46	45	46	93	139	271	199	87	a40	36
12	47	50	42	34	38	99	187	259	193	87	a39	35
13	47	50	38	48	50	117	193	259	196	84	a39	35
14	47	51	26	54	47	91	211	248	199	78	a38	34
15	47	53	51	50	46	104	241	248	184	72	a38	36
16	47	51	50	51	43	73	271	267	182	72	a37	40
17	47	51	73	51	44	77	308	287	168	68	a37	43
18	47	47	b52	51	46	95	318	326	149	67	a36	41
19	47	53	33	47	50	97	308	340	159	64	a36	39
20	48	41	44	52	56	117	275	336	170	61	36	38
21	48	43	62	48	58	108	230	345	173	60	36	38
22	48	52	56	54	66	112	227	291	173	60	37	37
23	46	54	51	51	131	102	244	283	162	60	77	38
24	46	51	47	61	149	95	271	252	152	57	67	37
25	47	52	48	56	99	84	322	241	131	54	41	36
26	47	50	48	41	78	110	355	267	134	58	38	36
27	46	50	73	46	187	144	308	300	141	61	37	36
28	46	50	266	50	104	136	308	271	131	54	37	36
29	46	50	241	48	-	136	308	227	129	52	37	36
30	54	41	86	44	-	122	244	211	129	50	38	35
31	54	-	64	51	-	119	-	208	-	51	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,462	54	46	47.2	2,900
November	1,497	54	41	49.9	2,970
December	1,960	266	26	63.2	3,890
Calendar year 1945	60,797	931	26	167	120,600
January	1,560	61	34	50.3	3,090
February	1,803	187	31	64.4	3,580
March	3,057	144	53	98.6	6,060
April	6,553	355	106	218	13,000
May	8,759	345	208	283	17,370
June	5,505	263	129	184	10,920
July	2,492	131	50	80.4	4,940
August	1,292	77	36	41.7	2,560
September	1,123	43	34	37.4	2,230
Water year 1945-46	37,063	355	26	102	73,510

a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.

Donner und Blitzen River near Voltage, Oreg.

Location.- Water-stage recorder, lat. 43°16', long. 118°51', in SW¼ sec. 2, T. 27 S., R. 31 E., just downstream from Sodhouse diversion dam of Fish and Wildlife Service, 1½ miles south of Sodhouse Lane and headquarters of Malheur Migratory Waterfowl Refuge, and 2 miles southwest of Voltage. Datum of gage is 4,097.58 feet above mean sea level, datum of 1929 (levels by Fish and Wildlife Service).

Records available.- February 1938 to September 1946 (discontinued). April 1916 to June 1919 and March 1921 to June 1922, fragmentary records at site 1½ miles downstream, including diversions and overflow through 16 culverts crossing Sodhouse Lane.

Extremes.- Maximum discharge during year, 362 second-feet (regulated) Nov. 5 (gage height, 4.18 feet); minimum stage and discharge not determined (water below inlet at times).
1916-19, 1921-22, 1938-46: 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 fair (not computed for periods of ice effect or when stage was below inlet). Most of flow diverted above station for irrigation and for flooding waterfowl refuge; Kado and Springer Canals divert water below station.

Cooperation.- Water-stage recorder inspected by employee of Fish and Wildlife Service.

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	80	105	135	100	223	102	-				-
2	-	75	63	122	-	171	96	-				-
3	-	47	75	117	-	149	90	-				-
4	-	51	92	119	-	119	87	-				-
5	-	99	94	116	-	109	-	†7				-
6	-	76	93	98	-	90	-	-				57
7	-	80	94	86	-	163	-	-				26
8	-	75	84	-	-	119	-	-				22
9	-	70	84	-	-	62	-	-				-
10	19	73	-	-	-	119	-	-				-
11	20	80	-	-	-	98	-	-				-
12	22	81	-	-	-	102	-	-				-
13	23	81	-	†79	-	105	-	-				-
14	24	80	-	-	-	114	-	-				-
15	24	82	-	-	-	119	-	-				-
16	26	83	-	-	-	128	-	-				-
17	26	83	-	-	-	55	-	-				-
18	26	80	-	-	-	46	-	-	†11			-
19	43	80	-	-	91	48	-	-			†12	-
20	50	81	-	-	-	43	35	-				-
21	44	77	-	-	-	66	32	-				-
22	59	65	-	89	-	66	26	-				-
23	64	90	-	70	75	72	23	26				-
24	53	91	-	-	86	73	21	24				-
25	52	93	-	-	133	72	-	22				-
26	53	96	-	-	126	73	-	22				-
27	54	102	123	-	114	96	-	30				-
28	53	107	141	-	162	102	-	30				-
29	55	109	221	-	-	209	-	21				-
30	78	106	270	-	-	190	-	-				-
31	94	-	192	-	-	164	-	-	-			-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	94	-	-	-
November	2,473	109	47	82.4	4,910
December	-	270	-	-	-
Calendar year	-	-	-	-	-
January	-	135	-	-	-
February	-	162	-	-	-
March	3,365	223	43	109	6,670
April	-	102	-	-	-
May	-	30	-	-	-
June	-	-	-	-	-
July	-	-	-	-	-
August	-	57	-	-	-
September					
Water year 1945-46	-	270	-	-	-

† Result of discharge measurement.

Note.- No gage-height record Dec. 20-26. Water below inlet (discharge, less than 22 sec.-ft.) Oct. 1-9, Apr. 5-19, Apr. 25 to May 22, May 30 to July 11, Aug. 20 to Sept. 5, Sept. 9-30, and probably July 12 to Aug. 18.

Bridge Creek near Frenchglen, Oreg.

Location.- Water-stage recorder and concrete control, lat. 42°50', long. 118°51', in NW¼ sec. 33, T. 31 S., R. 32½ E., at mouth of canyon, 1,000 feet upstream from road crossing and 3½ miles northeast of Frenchglen.

Records available.- March 1911 to September 1916, December 1937 to September 1946.

Average discharge.- 12 years (1912-16, 1938-46), 14.5 second-feet.

Extremes.- Maximum discharge during year, 38 second-feet May 23 (gage height, 1.53 feet); minimum, 11 second-feet July 13-22.
1911-16, 1937-46: Maximum discharge, 332 second-feet Feb. 22, 1943 (gage height, 2.55 feet), from rating curve extended above 55 second-feet by logarithmic plotting; minimum observed, 7 second-feet Feb. 24, 25, 1912, Dec. 30, 1937, to Jan. 4, 1938.

Remarks.- Records fair. No diversion or regulation above station. Low flow is maintained by large springs.

Cooperation.- Water-stage recorder inspected by employees of Fish and Wildlife Service.

Discharge, in second-feet, water year October 1945 to September 1946

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

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	443	15	14	14.3	879
November	423	15	14	14.1	839
December	433	14	13	14.0	859
Calendar year 1945	6,390	67	10	17.5	12,670
January	423	14	13	13.6	839
February	401	16	14	14.3	795
March	448	16	13	14.5	889
April	458	20	12	15.3	908
May	543	26	15	17.5	1,080
June	430	16	13	14.3	853
July	367	13	11	11.8	728
August	424	15	13	13.7	841
September	409	14	13	13.6	811
Water year 1945-46	5,202	26	11	14.3	10,320

Trout Creek near Denio, Oreg.

Location.- Water-stage recorder, lat. 42°10', long. 118°28', in SW¼ sec. 26, T. 39 S., R. 36 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 1946.

Average discharge.- 15 years (1922-23, 1932-46), 14.6 second-feet.

Extremes.- Maximum discharge during year, 101 second-feet Apr. 26 (gage height, 3.18 feet); minimum, 3.1 second-feet Aug. 21, 22.

1911-12, 1922-23, 1925-46: Maximum discharge, 343 second-feet Aug. 1, 1933, from rating curve extended above 125 second-feet; probably no flow at times.

Maximum stage known, 6.0 feet (caused by cloudburst) sometime between 1922 and 1932.

Remarks.- Records fair except those for Dec. 10 to Feb. 20, which are poor. Small diversions above and large diversions below station for irrigation.

Rating tables, water year 1945-46, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 17 to Apr. 16, May 1 to June 6)

Oct. 1 to Apr. 16

1.7	4.8	2.0	11.5	2.3	25
1.8	6.6	2.1	15	2.4	32
1.9	8.7	2.2	20	2.6	48

Apr. 17 to Sept. 30

1.6	3.3	2.0	11	2.5	37
1.7	4.8	2.1	14	2.7	53
1.8	6.6	2.2	18	2.9	71
1.9	8.7	2.3	24	3.1	92

Discharge, in second-feet, water year October 1945 to September 1946

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.7	9.5	7.4	11	b11	9.8	25	57	21	9.7	4.5	3.4
2	5.7	8.7	8.7	11	10	10	23	53	21	10	4.2	3.4
3	5.3	9.0	9.5	11	9.5	10	23	51	21	9.2	4.0	3.4
4	5.2	8.7	8.7	10	b8.0	9.5	22	54	21	8.7	4.0	3.6
5	5.3	9.0	8.7	10	b8.0	11	21	53	20	8.5	3.9	3.9
6	5.5	9.3	8.7	7.0	b9.0	11	21	52	18	8.3	3.8	3.8
7	5.9	8.5	8.7	b8.0	9.0	9.8	23	53	18	7.9	3.8	3.6
8	5.9	8.5	7.9	b7.0	b9.0	11	22	52	16	7.4	3.9	4.0
9	6.1	8.3	6.2	b6.0	b9.0	11	22	50	14	7.0	3.9	4.5
10	6.2	9.0	b6.5	b7.0	9.3	12	22	54	14	6.6	3.8	4.4
11	6.2	8.7	b6.0	b7.0	9.3	13	22	48	14	5.5	3.6	3.9
12	7.2	8.7	b5.5	b7.0	b8.5	13	25	45	15	5.0	3.6	3.8
13	7.0	9.0	b5.5	b7.5	b8.5	13	32	43	15	4.6	3.6	3.6
14	7.0	8.7	b6.0	b7.5	b9.0	12	38	41	12	4.4	3.8	3.6
15	7.0	9.3	6.4	b8.0	b9.5	13	42	39	12	4.4	3.9	3.8
16	7.0	9.3	7.0	b8.5	9.8	11	50	39	13	4.2	3.9	4.2
17	7.2	9.3	8.1	9.3	10	13	58	40	13	4.2	3.8	5.0
18	7.6	8.5	b7.0	10	9.5	13	74	41	12	3.6	3.8	5.0
19	7.4	9.8	b6.0	9.5	9.5	14	83	42	12	4.2	3.8	5.0
20	7.6	8.3	b6.5	9.5	9.5	17	85	43	11	5.5	3.4	4.8
21	7.6	8.1	8.1	9.3	9.3	24	76	43	12	5.3	3.3	4.6
22	7.9	8.7	9.5	9.8	8.7	23	70	41	11	5.3	3.2	4.8
23	7.6	10	9.3	9.3	9.5	22	69	40	12	5.5	3.4	5.0
24	7.4	9.3	8.5	9.8	10	24	77	36	13	5.3	4.6	4.8
25	7.4	9.3	8.3	8.3	10	24	85	35	11	5.2	4.0	4.5
26	7.4	8.7	8.5	b8.0	8.7	24	95	38	11	6.1	3.8	4.5
27	7.4	8.7	9.5	b8.0	11	26	86	34	11	6.1	3.4	4.6
28	7.4	8.7	11	b8.0	11	26	83	30	11	5.5	3.6	4.8
29	7.6	9.5	14	b8.0	-	29	78	27	10	4.5	3.3	4.8
30	9.8	8.1	12	b8.0	-	31	63	24	10	4.5	3.3	4.5
31	10	-	11	b9.0	-	28	-	24	-	4.6	3.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	215.5	10	5.2	6.95	427
November	265.2	10	6.1	8.84	526
December	254.7	14	5.5	8.22	505
Calendar year 1945	8,926.9	189	3.2	24.5	17,710
January	267.3	11	6.0	8.62	530
February	263.1	11	8.0	9.40	522
March	518.1	31	9.5	16.7	1,030
April	1,515	95	21	50.5	3,000
May	1,322	57	24	42.6	2,620
June	425	21	10	14.2	843
July	186.8	10	3.6	6.03	371
August	116.3	4.6	3.2	3.75	231
September	127.6	5.0	3.4	4.25	253
Water year 1945-46	5,476.6	95	3.2	15.0	10,860

b Stage-discharge relation affected by ice.

Measurements of stream flow in the Great Basin made at points other than gaging stations are given in the following table:

Miscellaneous discharge measurements in the Great Basin during water year October 1945 to September 1946

Great Salt Lake Basin

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
June 20	Bear River.....	Great Salt Lake.	SE¼ sec. 31, T. 12 S., R. 44 E., at Bern Bridge, ½ mile below confluence with Bear Lake Outlet Canal and 2¾ miles northwest of Montpelier, Idaho.	990
19	Dingle inlet canal.	Bear River.....	NW¼ sec. 13, T. 14 S., R. 44 E., 1 mile south of Dingle, Idaho.	†1.5
18	Paris Creek.....	Bear Lake Outlet Canal.	Sec. 13, T. 14 S., R. 42 E., 50 feet below power-canal diversion, 600 feet below Paris Creek spring, and 6 miles southwest of Paris, Idaho.	27.8
18	Paris power canal.	Paris Creek.....	Sec. 13, T. 14 S., R. 42 E., at head of canal, 6 miles southwest of Paris, Idaho.	38.2
12	Last Chance Canal.	Bear River.....	Sec. 30, T. 9 S., R. 41 E., just above entrance to tunnel and 1½ miles north of Grace, Idaho.	326
11	Bench "B" Canal.	....do.....	Sec. 1, T. 10 S., R. 40 E., 1,000 feet below canal heading and 1 mile north of Grace, Idaho.	130
12	Tanner "B" Canal.	....do.....	Sec. 1, T. 10 S., R. 40 E., 200 feet below canal heading and 1 mile north of Grace, Idaho.	†.1
July 24	Little Malad River.	Malad River.....	SW¼ sec. 17, T. 13 S., R. 35 E., 125 feet above head gate of Ed Jones ditch and Elkhorn Creek, 1.6 miles below Elkorn Dam, and 10 miles northwest of Malad, Idaho.	15.7
Aug. 26	....do.....	....do.....	....do.....	16.6
July 24	....do.....	....do.....	NE¼ sec. 33, T. 13 S., R. 35 E., 500 feet above head gates for P. M. & N. and Sand Ridge ditches, 4.9 miles below Elkorn Dam, and 8 miles northwest of Malad, Idaho.	14.6
Aug. 26	....do.....	....do.....	NE¼ sec. 33, T. 13 S., R. 35 E., 100 feet below head gates for P. M. & N. and Sand Ridge ditches, 4.9 miles below Elkhorn Dam, and 8 miles northwest of Malad, Idaho.	15.2
July 24	....do.....	....do.....	SW¼ sec. 34, T. 13 S., R. 35 E., below point of diversion of St. Johns Canal, 5.9 miles below Elkhorn Dam and 7 miles northwest of Malad, Idaho.	0
Aug. 26	....do.....	....do.....	....do.....	0
July 24	Elkhorn Creek...	Little Malad River.	SW¼ sec. 17, T. 13 S., R. 35 E., at mouth, 1.6 miles below Elkhorn Dam and 10 miles northwest of Malad, Idaho.	0
Aug. 26	....do.....	....do.....	....do.....	†3.0
26	....do.....	....do.....	....do.....	0
July 24	Ed Jones ditch..	....do.....	SW¼ sec. 17, T. 13 S., R. 35 E., at point of diversion, 1.6 miles below Elkhorn Dam and 10 miles northwest of Malad, Idaho.	0
Aug. 26	....do.....	....do.....	....do.....	0
July 24	Sand Ridge ditch	....do.....	NE¼ sec. 33, T. 13 S., R. 35 E., 75 feet below point of diversion, 4.9 miles below Elkhorn Dam, and 8 miles northwest of Malad, Idaho.	2.47
Aug. 26	....do.....	....do.....	....do.....	0
July 24	P. M. & N. ditch	....do.....	....do.....	0
Aug. 26	....do.....	....do.....	....do.....	3.55
July 24	St. Johns Canal.	....do.....	SE¼ sec. 34, T. 13 S., R. 35 E., ¼ mile below point of diversion, 5.9 miles below Elkhorn Dam, and 7 miles northwest of Malad, Idaho.	15.0
Aug. 26	....do.....	....do.....	SW¼ sec. 34, T. 13 S., R. 35 E., at point of diversion, 5.9 miles below Elkhorn Dam and 7 miles northwest of Malad, Idaho.	13.9
Oct. 18	....do.....	....do.....	Sec. 2, T. 14 S., R. 35 E., 1¼ miles below point of diversion, 6.8 miles below Elkhorn Dam, and 6 miles northwest of Malad, Idaho.	7.73
Nov. 13	....do.....	....do.....	....do.....	4.42
Jan. 9	....do.....	....do.....	....do.....	†.5
Mar. 13	....do.....	....do.....	....do.....	1.09
20	....do.....	....do.....	....do.....	3.32
Apr. 21	....do.....	....do.....	....do.....	.37
May 25	....do.....	....do.....	....do.....	16.3
June 23	....do.....	....do.....	....do.....	12.8
July 22	....do.....	....do.....	....do.....	16.2
Aug. 26	....do.....	....do.....	....do.....	13.7
July 24	Madsen ditch....	....do.....	Sec. 34, T. 13 S., R. 35 E., at point of diversion, 5.9 miles below Elkhorn Dam, and 7 miles northwest of Malad, Idaho.	0
Aug. 26	....do.....	....do.....	....do.....	0
Oct. 2	American Fork...	Utah Lake.....	Sec. 32, T. 4 S., R. 2 E., at Utah Power & Light Co.'s lower power plant, 5 miles northeast of American Fork, Utah.	36.2
Nov. 14	....do.....	....do.....	....do.....	24.0
Dec. 27	....do.....	....do.....	....do.....	25.5
Feb. 15	....do.....	....do.....	....do.....	22.2

† Field estimate.

Miscellaneous discharge measurements in the Great Basin during water year October 1945 to September 1946--Continued

Great Salt Lake Basin--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Mar. 19	American Fork...	Utah Lake.....	Sec. 32, T. 4 S., R. 2 E., at Utah Power & Light Co.'s lower power plant, 5 miles northeast of American Fork, Utah.	31.0
Apr. 18	....do.....	....do.....	....do.....	150
May 24	Mill Creek.....	Jordan River....	Sec. 31, T. 1 S., R. 2 E., $\frac{1}{4}$ mile above Utah Power & Light Co.'s lower power plant on Mill Creek, near Salt Lake City, Utah.	18.3
24	Tailrace of lower Mill Creek power plant.	Mill Creek.....	Sec. 36, T. 1 S., R. 1 E., at Utah Power & Light Co.'s lower power plant on Mill Creek, near Salt Lake City, Utah.	12.0
July 24	Mount Pleasant Creek.	San Pitch River.	NE$\frac{1}{4}$ sec. 6, T. 15 S., R. 5 E., at flood-control dam, 3 miles east of Mount Pleasant, Utah.	*1,700

* By computation of flow over dam.

Sevier Lake Basin

Sept.16	Duck Creek Spring.	Duck Creek.....	Sec. 12, T. 38 S., R. 8 W., 18 miles southwest of Hatch, Utah.	4.0
16	Upper Asay Spring.	Asay Creek.....	Sec. 33, T. 37 S., R. 6 W., 9 miles southwest of Hatch, Utah.	3.3
16	Lower Asay Spring.	....do.....	....do.....	18.3
16	West Fork Asay Spring.	West Fork Asay Creek.	Sec. 19, T. 37 S., R. 6 W., 9 miles southwest of Hatch, Utah.	.13
16	Mammoth Spring..	Mammoth Creek...	Sec. 5, T. 37 S., R. 7 W., 13 miles west of Hatch, Utah.	5.4
16	Blue Spring.....	Deer Creek.....	Sec. 8, T. 36 S., R. 7 W., 14 miles northwest of Hatch, Utah.	4.6

Pavant Valley

Oct. 15	Pine Creek.....	Drains to Pavant Valley.	Sec. 15, T. 22 S., R. 4 W., 4 miles southeast of Fillmore, Utah.	0
15	Meadow Creek....	Pavant Valley...	Sec. 17, T. 22 S., R. 4 W., 4 miles east of Meadow, Utah.	2.9
Mar. 4	....do.....	....do.....	....do.....	5.2
Apr. 4	....do.....	....do.....	....do.....	8.1
May 6	....do.....	....do.....	....do.....	17.2
30	....do.....	....do.....	....do.....	10.9
June 27	....do.....	....do.....	....do.....	5.1
July 31	....do.....	....do.....	....do.....	3.1
Aug. 20	....do.....	....do.....	....do.....	3.0
Sept.20	....do.....	....do.....	....do.....	1.9
Oct. 15	Corn Creek.....	....do.....	Sec. 35, T. 23 S., R. 5 W., 4 miles southeast of Kanosh, Utah.	13.1
Mar. 4	....do.....	....do.....	....do.....	10.1
Apr. 4	....do.....	....do.....	....do.....	24.3
May 6	....do.....	....do.....	....do.....	40.2
30	....do.....	....do.....	....do.....	25.8
June 27	....do.....	....do.....	....do.....	13.1
July 30	....do.....	....do.....	....do.....	7.6
Aug. 20	....do.....	....do.....	....do.....	7.2
Sept.20	....do.....	....do.....	....do.....	6.3

Malheur and Harney Lakes Basin

Apr. 12	Cow Creek.....	Malheur Lake....	Sec. 26, T. 22 S., R. 32$\frac{1}{2}$ E., near Harney, Oreg.	42.8

Alvord Lake Basin

June 11	Trout Creek.....	Alvord Lake.....	Sec. 15, T. 39 S., R. 37 E., about 19 miles northeast of Denio, Oreg.	19.0
18	....do.....	....do.....	....do.....	14.8
18	....do.....	....do.....	Sec. 16, T. 39 S., R. 37 E., above Calderwood Ranch and about 18 miles northeast of Denio, Oreg.	16.2
11	....do.....	....do.....	Sec. 17, T. 39 S., R. 37 E., above Calderwood Ranch and about 18 miles northeast of Denio, Oreg.	16.7
11	....do.....	....do.....	Sec. 18, T. 39 S., R. 37 E., below Calderwood Ranch and about 17 miles northeast of Denio, Oreg.	14.3
18	....do.....	....do.....	....do.....	12.7
18	....do.....	....do.....	Sec. 29, T. 39 S., R. 36 E., above South Branch and about 13 miles northeast of Denio, Oreg.	13.6
18	South Branch Trout Creek.	Trout Creek.....	Sec. 29, T. 39 S., R. 36 E., at head, about 13 miles northeast of Denio, Oreg.	1.32
Apr. 16	Wildhorse Creek.	Alvord Lake.....	Near corner secs. 23, 24, 25, 26, T. 35 S., R. 33 E., near Andrews, Oreg.	11.7
20	....do.....	....do.....	....do.....	17.6
29	....do.....	....do.....	....do.....	20.2
May 13	....do.....	....do.....	....do.....	17.2
June 10	....do.....	....do.....	....do.....	17.3

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