Surface Water Supply of the United States 1950

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 the personnel of the Water Resources Division 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, 1950. 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 12,060 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. On September 30, 1950, 6,540 gaging stations, including those in Hawaii and Alaska 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 acknowedged 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 13.

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. Unless otherwise indicated, it is computed on the basis of a level pool and does not include bank storage.

"Drainage area" of a stream at a specified location is that area, measured in a horizontal plane, which is enclosed by a topographic divide such that direct surface runoff from precipitation normally would drain by gravity into the river basin above the specified point. Figures of drainage area given herein include all closed basins or non-contributing areas within the area unless otherwise noted.

EXPLANATION OF DATA

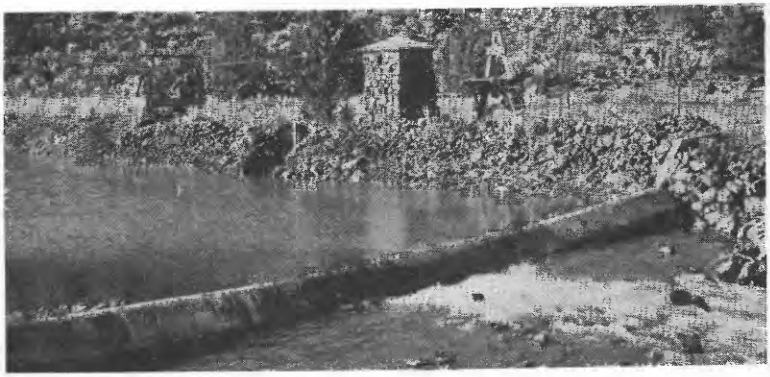
The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording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

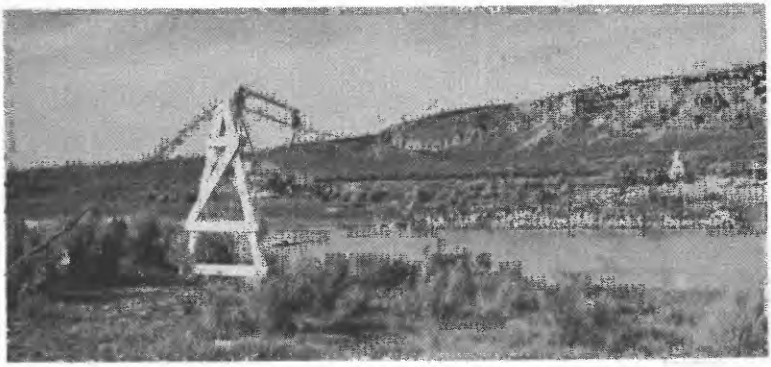
At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method," in which the slope or fall in a reach of the stream is a factor in the determination of discharge. Information requisite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



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.

the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating tables are published for all stations except those at which the daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

The description of the station gives the type of gage, location, drainage area, records available, average discharge, extremes of discharge, general remarks, and notations of revisions of previously published record. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having less than 10 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. 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, a crest-stage indicator, or a nonrecording gage read at the time of the crest. Information pertaining to the accuracy of the records and conditions which affect the natural flow at the gaging station is given under "Remarks."

For some stations previously published records have been found to be in error on the basis of data or information obtained subsequently. Revisions of such records are usually published along with the current records in one of the annual reports. In order to make it easier to find such revised records, a paragraph headed "Revisions (water years)" has been added to the station description of all stations for which revised records have been published. Listed therein are all the reports in which revisions appear, each followed by the water years for which figures are revised in that report. In listing the report number, W. means Water-Supply Paper. In listing the years, water years are indicated by only 1 year, for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If there were no daily, monthly, or annual figures of discharge involved in the revision, that fact is brought out by notations after the year dates as follows: (M) means that only the instantaneous maximum discharge was revised; (m) that only the instantaneous minimum was revised; and (P) that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which second-feet per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of second-feet per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

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

corresponding to either once-daily readings of the gage, the mean of twice-daily readings, or the mean gage height determined from gage-height graphs based on gage readings. For periods of rapidly changing stage, the daily mean discharge is determined from gage-height graphs based on gage readings, the frequency of which is 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.

Peak discharges with the times of their occurrence are listed below the table of monthly discharge for most stations. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man.

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 or stage 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. Even at those stations where adjustments are made, in some instances large errors in computed yields may occur when relatively large negative adjustments are applied or when evaporation is large in comparison with the observed discharge. 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 slope and eastern Gulf of Mexico basins (James River to Mississippi River).
3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River Basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.
9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

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

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

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

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

East of the Mississippi River:
Albany, N. Y., 526 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 644 Peachtree Seventh.
Augusta, Maine, 420 Statehouse.
Baton Rouge, La., 850 North 5th Street.
Boston, Mass., 939 Post Office Building.
Champaign, Ill., 605 South Neil Street.
Charleston, W. Va., 408 Union Building.
Charlottesville, Va., Cabell Hall, University of Virginia.
Chattanooga, Tenn., 442 Post Office Building.
College Park, Md., 106 Engineering Building, University of Maryland.
Columbia, S. C., 207 Creason Building.
Columbus, Ohio, 1509 Hess Street.
Harrisburg, Pa., 490 Education Building.
Hartford, Conn., 203 Federal Building.
Indianapolis, Ind., 311 West Washington Street.
Jackson, Miss., Room 1, Fidelity Building.
Knoxville, Tenn., 337 Post Office Building.
Lansing, Mich., 611 Capitol Saving & Loan Building.
Louisville, Ky., 531 Federal Building.
Madison, Wis., 666 State Office Building.
Montgomery, Ala., 507 Post Office Building.
New Philadelphia, Ohio, Muskingum Watershed Conservancy District Building.
Ocala, Fla., Building 211, Camp Roosevelt.
Pittsburgh, Pa., 515 Plaza Building.
Raleigh, N. C., 908 Capitol Club Building.
St. Paul, Minn., 1427 New Post Office Building.
Trenton, N. J., 228 Federal Building.
Washington, D. C., General Services Administration Building.

West of the Mississippi River:
Austin, Tex., 302 West Fifteenth Street.
Bismarck, N. Dak., 7 Eltinge Building.
Boise, Idaho, 429 Federal Building.
Denver, Colo., Federal Center.
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.
Juneau, Alaska, Sub Port.
Lincoln, Nebr., 510 Rudge-Guenzel Building.
Los Angeles, Calif., 429-F United States Post Office and Courthouse.
Oklahoma City, Okla., 405 Post Office Building.
Pierre, S. Dak., 207 Federal Building.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., 211 Ramsey Building.
St. Louis, Mo., 1004 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 541 Federal Office Building.
Santa Fe, N. Mex., 228 United States Courthouse.
Tacoma, Wash., 207 Federal Building.
Topeka, Kans., 305 Federal Building.
Tucson, Ariz., 210 Post Office Building.

A list of 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.....	1884-92.
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 stream 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.

Numbers of water-supply papers containing results of stream measurements, 1899-1949 (for basins included see p. 6).

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a	35	b35, 36	36	36	36	c36, 37	37	37	d37, 38	38, e39	38, f39	38	38	38
1900 g	47, h48	48	48, 149	49	49	49, j50	50	50	50	51	51	51	51	51
1901	65, 75	65, 75	65, 75	65, 75	k65, 66, 75	66, 75	k65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902	82	b82, 83	83	m82, 83	k83, 85	84	k83, 84	84	85	85	85	85	85	85
1903	97	b97, 98	98	97	k98, 99, n100	99	k98, 99	99	100	100	100	100	100	100
1904	o124, p125, q126	q126, 127	128	129	k128, 130	130, r131	k128, 131	132	133	133, s134	134	135	135	135
1905	o165, p166, q167	q167, 168	169	170	171	172	k169, 173	174	175, t177	176, s177	177	178	178	u177, 178
1906	o201, p202, q203	q203, 204	205	206	207	208	k205, 209	210	211, t213	212, s213	213	214	214	214
1907-8	241	242	243	244	245	246	247	248	249	250, s251	251	252	252	252
1909	261	262	263	264	265	266	267	268	269	270, s271	271	272	272	272
1910	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939	871	872	873	874	875	876	877	878	879	880	881	882	883	884
1940	891	892	893	894	895	896	897	898	899	900	901	902	903	904
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
1947	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094
1948	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124
1949	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154
1950	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184

a Rating tables and index to WSP 35-39 contained in WSP 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.
g Rating tables and index to WSP 47-52 contained in WSP 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Schuylkill River 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.
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.

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.

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	836-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	1848-1915	415
Massachusetts, Hydrology of, Part 1, Summary of stream-flow and precipitation records.	1863-1945	1105
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-eupply 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.
Do.....	1904-47	Special Report 20, Water Resources and Hydrology of southeastern Alabama.	Do
Arkansas.....	1857-1928	Stream-gaging Rept. 1.....	Arkansas Geological Survey.
Do.....	1903-48	Surface Water Resources of Arkansas.....	Arkansas Resources and Development Commission; University of Arkansas, Institute of Science and Technology.
Colorado.....	1881-1935	Water resources of Colorado, Appendix 2, Data on stream-gaging stations of Colorado.[1]	State Planning Commission, Water Conservation Board, State engineer.
Do.....	1881-1938	Water resources of Colorado, Appendix 3, vols. 1 and 2, Stream-flow data of Colorado.	Do.
Connecticut...	1900-1927	Bull. 44, Water resources of Connecticut...	State Geological and Natural History Survey.
Do.....	1912-33	5th biennial report.....	State Water Commission.
Florida.....	1898-1946	Bull. 31, Springs of Florida.....	Florida Geological Survey.
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.
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.....	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.
Do.....	1931-48	Bull. 5, Anne Arundel County Water Resources	Do.
Minnesota.....	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Mississippi...	1900-1948	Bull. 68, Surface Waters of Mississippi....	Mississippi Geological Survey.
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.....	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.	Department of Conservation and Development.
Do.....	1889-1936	Bull. 39, Discharge records of North Carolina streams.[2]	Do.
Do.....	1866-1945	Hydrologic Data on the Neuse River Basin.	Do.
Do.....	1820-1945	Hydrologic Data on the Cape Fear River Basin.	Do.
Do.....	1866-1945	Hydrologic Data on the Yadkin-Pee Dee River Basin.	Do.
Do.....	1872-1945	Hydrologic Data on the Catawba and Broad River Basins.	Do.
Do.....	1857-1945	Hydraulic Data on The French Broad 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.

1 Contains records of yearly discharge only.
2 Contains records of maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.

State reports containing compilations of records of discharge--Continued

State	Period	Report	Issued by
Oregon.....	1930-36	Bull. 9, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1936-41	Bull. 10, 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.
South Carolina	1884-1946	Bull. 17, Summary of records of surface water supply of South Carolina.	South Carolina Research, Planning and Development Board.
Tennessee.....	1874-1924	Bull. 34, Water resources of Tennessee[3]....	Department of Education.
Do.....	1920-30	Bull. 40, Surface waters of Tennessee.....	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.

3 Includes records of discharge for all stations in North Carolina in the Tennessee River Basin.

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, South Dakota, 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 (Hoover) 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.
1066	Floods of August 1940 in the southeastern States.
1080	Floods of May-June 1948 in Columbia River Basin.
1134-A	Floods of August 4-5, 1943 in Central West Virginia.
1134-B	Floods of July 18, 1942 in North Central Pennsylvania.
1137-A	Missouri River Basin Floods of April-May 1950 in North and South Dakota.

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 1949 to September 1950 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 1949 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..	1937-49	Intermountain Forest & Range Experiment Station.
City Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1950a	Salt Lake City.
Cottonwood Creek...	....do.....	1898-1950a	Do.
Donner Creek.....	Above Cold Creek, near Truckee, Calif....	1929-50	Federal Court Watermaster for Truckee River.
Do.....	Below Cold Creek, near Truckee, Calif....	1902-15, 1928-50b	Do.
Emigration Creek...	Salt Lake City, Utah, near mouth of canyon.	1898-1950a	Salt Lake City.
Ephraim Creek.....	Near Ephraim, Utah.....	1914-50	Intermountain Forest & Range Experiment Station.
Farmington Creek...	Near Farmington, Utah.....	1937-50	Do.
Little Cottonwood Creek.	Salt Lake City, Utah, near mouth of canyon.	1898-1950a	Salt Lake City.
Little Truckee River.	Above Boca Reservoir, near Boca, Calif...	1942-50	Washoe County Water Conservation District.
Do.....	Below Boca Reservoir, near Boca, Calif...	1942-50	Do.
Mill Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1950a	Salt Lake City.
Otter Creek Reservoir outlet.	Antimony, Utah, at former Geological Survey gaging station published as Otter Creek near Coyoto.	1920-50e	Sevier River water commissioner.
Parish Creek.....	Centerville, Utah, near mouth of canyon..	1937-49	Intermountain Forest & Range Experiment Station.
Parleys Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1950a	Salt Lake City.
Prosser Creek.....	Near Boca, Calif.....	1942-50	Federal Court Watermaster for Truckee River.
Sevier River.....	Delta, Utah, at former Geological Survey gaging station.	1920-50e	Sevier River water commissioner.
Truckee River.....	At Derby Dam, Nev.....	1907-10f, 1926-50	Federal Court Watermaster for Truckee River.
Do.....	At Farad, Calif.....	1938-50b	Truckee-Carson Irrigation District.
Do.....	At Pyramid Dam, Nev.....	1928-50	Federal Court Watermaster for Truckee River.
Do.....	At Tahoe, Calif.....	1895-96, 1900-50b	Do.
Do.....	At Vista, Nev.....	1899-1907f, 1927-50	Do.
Walker River.....	Near Wabuska, Nev.....	1902-8f, 1920-34f, 1940-50	Walker River Irrigation District.
West Walker River..	Near Hudson, Nev.....	1921-25f, 1941-50c	Do.
Do.....	Near Wellington, Nev.....	1940-50c	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.
c Irrigation seasons only.
d Records prior to 1942 are published in bulletins of the Oregon State engineer. Records prior to 1922 are also contained in water-supply papers published by the Geological Survey.
e Published in the annual reports of Sevier River water commissioner.
f Published in water-supply papers by the Geological Survey.
Note.--Records here listed other than those cited in above notes have 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 County.

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, H. A. Linke, succeeded by J. M. Tracy; Utah Water and Power Board, W. R. Wallace, chairman.

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 for the operation of three gaging stations in Utah, two in California, and five in Nevada, and by the Bureau of Reclamation, United States Department of the Interior, for work in California and Utah.

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; Utah Power and Light Company.

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 division of the Geological Survey, Carl G. Paulsen, chief hydraulic engineer, and Joseph V. B. Wells, chief of the surface water branch. 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), R. C. Briggs; in Idaho (except for stations in Bear River Basin operated in connection with Federal Power Commission projects), T. R. Newell; in Oregon, K. N. Philips, 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, F. M. Bell.

The records were reviewed and the manuscript prepared for publication under the direction of B. J. Peterson, chief, annual reports section.

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 4,186.9 feet above mean sea level, that of Midlake gage, 4,198.1 feet above mean sea level; datum of 1929.

Records available.--September 1875 to December 1899, March to July 1904, and October 1912 to September 1950 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, 4,198.85 feet June 1 at Midlake gage; minimum, 4,196.6 feet Nov. 15, at Boat Harbor and Midlake gages.

1851-1950: Maximum elevation, 4,211.6 feet in 1873, computed from traditional data by E. C. LaRue (see Water-Supply Paper 880, p. 125); minimum, 4,193.7 feet Oct. 15 and Nov. 1, 1940, at Boat Harbor gage and Oct. 15, 1940, at Midlake gage.

Remarks.--Apparent inconsistencies in readings are probably due largely to the effect of wind, as the two gages are about 40 miles apart. To compensate for wind effect, elevations given for the Boat Harbor gage are taken from a mean slope line defined by several days' gage-height graph preceding and following 12:01 a.m. for the first and fifteenth of each month. Wind effects may cause substantial changes in elevations which are not shown in the published elevations.

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

Gage height, in feet, water year 1949-50

Day	Boat Harbor	Midlake
Oct. 1	9.8	-1.4
15	9.7	-1.5
Nov. 1	9.9	-1.35
15	10.05	-1.15
Dec. 1	10.1	-1.1
15	10.15	-1.1
Jan. 1	10.25	-1.0
15	10.3	-.85
Feb. 1	10.5	-.65
15	10.8	-.4
Mar. 1	11.0	-.25
15	11.05	-.1
Apr. 1	11.25	.1
15	11.3	.15
May 1	11.45	.25
15	11.75	.6
June 1	11.9	.75
15	11.85	.65
July 1	11.75	.6
15	11.65	.6
Aug. 1	11.4	.15
15	11.15	0
Sept. 1	11.0	-.15
15	10.85	-.35

Hilliard-East Fork Canal near State line, near Evanston, Wyo.

Location.--Water-stage recorder, lat. 40°55', long. 110°49', in NW¼ sec. 16, T. 2 N., R. 10 E., in Utah, 8 feet upstream from forest road bridge, three-quarters of a mile downstream from head, and 25 miles southeast of Evanston.

Records available.--October 1949 to September 1950 in reports of Geological Survey. April 1944 to September 1949 (irrigation seasons only) in Bear River Hydrometric Data reports.

Extremes.--Maximum daily discharge during year, 28 second-feet June 19-22, June 26 to July 2, July 5; no flow Oct. 27 to June 10.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Canal diverts from East Fork Bear River for irrigation of lands in Hilliard Flat area, Wyoming.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8								0	28	18	a8.0
2	.8								0	28	17	a7.0
3	.8								0	27	17	a6.5
4	.6								0	27	16	a6.0
5	.8								0	28	15	a5.8
6	.8								0	27	15	5.7
7	.9								0	26	14	5.7
8	1.0								0	27	13	5.6
9	.9								0	26	13	6.3
10	1.0								0	26	13	6.7
11	.4								a7	26	a13	10
12	.9								a14	25	a13	8.5
13	.5								a14	25	a12	8.7
14	.5								a14	24	a12	9.4
15	.5								14	24	a11	9.5
16	.5								14	23	a10	8.9
17	.4								14	24	a9.5	8.8
18	b.5								21	26	a9.0	8.0
19	b.4								28	24	a9.0	8.2
20	a.4								28	24	a9.0	12
21	a.4								28	23	a8.8	12
22	a.4								28	22	a8.8	12
23	a.3								27	21	8.6	12
24	a.3								27	20	7.6	11
25	a.3								26	20	7.6	10
26	a.2								28	19	a7.4	10
27	0								28	23	a7.0	10
28	0								28	23	a6.8	10
29	0								28	24	a6.5	7.5
30	0								28	22	a6.0	3.1
31	0								-	19	a6.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	15.3	1.0	0	0.49	30
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	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	444	28	0	14.8	881
July	751	28	19	24.2	1,490
August	340.1	18	6.0	11.0	675
September	252.9	12	3.1	8.43	502
Water year 1949-50	1,803.3	28	0	4.94	3,580

a No gage-height record; discharge computed on basis of watermaster's notes on time of gate changes and records for Bear River near Utah-Wyoming State line.
b Stage-discharge relation affected by ice.

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 1950.

Extremes.--Maximum discharge during year, 1,960 second-feet May 30 (gage height, 4.18 feet); minimum, 17 second-feet Nov. 30, but may have been less during periods of ice effect or no gage-height record.
1942-50: Maximum discharge, 2,200 second-feet May 19, 1948 (gage height, 4.23 feet); minimum, that of Nov. 30, 1949.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	46	b40			b36	41	166	1,540	867	142	48
2	46	45	b43			b36	45	162	1,400	806	130	43
3	46	45	b41			36	38	149	940	756	120	43
4	45	45	b42			36	52	135	910	692	117	42
5	45	45	b45			35	53	126	1,170	685	117	42
6	52	45	b43			37	46	124	1,490	647	106	43
7	58	45	41			b37	50	113	1,470	610	101	45
8	58	48	38		a30	b38	56	116	1,060	625	95	46
9	56	46	40	a35		b37	52	111	840	574	91	52
10	58	50	36			37	50	111	948	527	88	55
11	52	50				b30	49	121	1,290	533	91	84
12	63	46				b28	53	149	1,560	461	88	80
13	73	49				b28	63	195	1,490	403	82	63
14	70	52	b40			28	73	275	1,580	359	82	61
15	63	50				29	66	380	1,600	328	71	63
16	59	46				b35	66	492	1,590	310	66	59
17	61	46				40	79	596	1,610	292	64	58
18	71	45		(*)		42	90	637	1,460	286	61	53
19	75	45				42	90	589	1,340	262	58	52
20	68	45		a40		40	106	630	1,270	251	58	73
21	64	45			a35	46	143	768	1,370	234	56	88
22	55	45				38	183	978	1,460	218	55	75
23	61	45				42	233	1,100	1,460	198	56	75
24	59	49	a40			38	247	1,250	1,330	193	49	75
25	59	41				38	237	1,220	1,070	179	48	66
26	58	41				38	242	1,010	930	169	46	64
27	56	42		a30		41	233	1,130	939	202	45	63
28	52	45			*35	45	211	1,200	930	224	43	58
29	55	*43			-	50	179	1,080	939	234	42	59
30	49	35			-	*46	159	1,370	920	188	40	64
31	45	-			-	40	-	1,560	-	156	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,786	75	45	57.6	3,540
November	1,365	52	35	45.5	2,710
December	1,249	-	-	40.3	2,480
Calendar year 1949	66,408	1,580	-	182	131,700
January	1,090	-	-	35.2	2,160
February	905	-	-	32.3	1,800
March	1,169	50	28	37.7	2,320
April	3,285	247	38	109	6,520
May	18,043	1,560	111	582	35,790
June	37,906	1,610	840	1,264	75,190
July	12,469	867	156	402	24,730
August	2,350	142	40	75.8	4,660
September	1,792	88	42	59.7	3,550
Water year 1949-50	83,409	1,610	-	229	165,400

Peak discharge (base, 1,100 sec.-ft.).--May 30 (11 p.m.) 1,960 sec.-ft.; June 7 (12:30 a.m.) 1,870 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record (stage-discharge relation affected by ice most of time); discharge computed on basis of 2 discharge measurements, weather records, and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Bear River above Sulphur Creek, near Evanston, Wyo.

Location.--Water-stage recorder, lat. 41°09', long. 110°53', in SW¼SE¼ sec. 31, T. 14 N., R. 119 W., 1⅝ miles upstream from Myers bridge, 5.5 miles upstream from Sulphur Creek, and 9½ miles southeast of Evanston.

Drainage area.--282 square miles.

Records available.--October 1946 to September 1950.

Extremes.--Maximum discharge during year, 1,990 second-feet June 2 (gage height, 5.30 feet); minimum, 15 second-feet Sept. 7.
1946-50: Maximum discharge, 2,120 second-feet May 20, 1948 (gage height, 5.01 feet); minimum, 5.5 second-feet Sept. 16, 1948.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	62	39			(*)	80	292	1,780	820	108	21
2	34	59	44				102	325	1,840	778	98	24
3	31	58	50				104	325	1,390	718	92	19
4	31	58	41				112	276	1,130	618	85	18
5	29	58	53				119	241	1,290	575	85	17
6	33	58	50				119	245	1,580	495	78	17
7	44	57	49				158	206	1,760	460	76	16
8	46	59	49		40	75	197	213	1,410	495	73	16
9	48	62	46	45			197	213	1,030	470	70	18
10	37	65					160	260	1,020	435	66	24
11	34	69					166	284	1,290	490	68	36
12	52	62					191	296	1,570	404	70	65
13	68	55					249	351	1,510	345	68	44
14	68	62					268	446	1,530	305	71	43
15	64	65					206	590	1,520	244	65	46
16	55	58					216	699	1,530	212	59	45
17	54	57		(*)			321	873	1,550	195	57	46
18	66	55			50		364	939	1,480	145	47	46
19	99	54					309	843	1,360	128	44	43
20	90	52	50	50			364	849	1,280	114	43	65
21	83	* 52					437	978	1,280	102	40	80
22	75	52					464	1,160	1,340	89	38	73
23	83	45			60	80	478	1,340	1,220	85	37	74
24	80	58					441	1,420	1,220	83	35	85
25	77	54					373	1,550	1,080	76	30	70
26	74	53					364	1,250	915	73	30	66
27	71	54		40	70		396	1,290	894	76	30	63
28	68	53					396	1,460	868	100	29	59
29	68	*53			-		325	1,300	850	186	28	56
30	65	48			-		292	1,400	838	164	26	63
31	62	-			-	(*)	-	1,750	-	130	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,826	99	29	58.9	3,620
November	1,707	69	45	56.9	3,390
December	1,521	-	-	49.1	3,020
Calendar year 1949	70,592	1,380	-	193	140,000
January	1,400	-	-	45.2	2,780
February	1,370	-	-	48.9	2,720
March	2,405	-	-	77.6	4,770
April	7,968	478	80	266	15,800
May	23,664	1,750	206	763	46,940
June	39,355	1,840	838	1,312	78,060
July	9,610	820	73	310	19,060
August	1,769	108	23	57.1	3,510
September	1,358	85	16	45.3	2,690
Water year 1949-50	93,953	1,840	16	257	186,400

Peak discharge (base, 1,100 sec.-ft.).--June 2 (12 m.) 1,990 sec.-ft.; June 7 (1 p.m.) 1,900 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 10 to Mar. 31 (no gage-height record Jan. 30 to Feb. 28); discharge computed on basis of 3 discharge measurements, weather records, and records for stations on nearby streams.

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 road bridge and 3½ miles northwest of Evanston.

Drainage area.--715 square miles.

Records available.--October 1913 to September 1950.

Average discharge.--37 years, 233 second-feet.

Extremes.--Maximum discharge during year, 2,200 second-feet June 3 (gage height, 6.15 feet); minimum, 6.0 second-feet Sept. 7, 8.
1913-50: 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, 1948.

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

Revisions (water years).--W 1010: 1942, 1943. W 1090: Drainage area.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	54	42				146	594	2,080	773	96	11
2	18	54					227	614	2,070	713	80	9.3
3	18	53					239	739	2,040	675	70	9.3
4	16	53					233	694	1,480	572	63	8.8
5	17	54				a120	227	622	1,460	521	55	8.2
6	14	54					254	622	1,640	466	53	7.6
7	21						375	594	1,920	424	48	6.6
8	24				a45		626	546	2,000	442	48	7.1
9	26			a50			690	538	1,360	431	48	7.1
10	29					*b120	519	566	1,200	442	44	8.2
11	26					b100	526	634	1,340	473	44	15
12	28					b80	*598	594	1,530	411	49	25
13	48			(*)		b80	748	650	1,650	338	48	34
14	56					b80	1,000	752	1,640	286	48	31
15	50					79	744	960	1,640	241	49	34
16	45		a55			89	748	1,120	1,630	190	44	35
17	40	a60				91	986	1,330	1,620	158	40	35
18	45				a60	124	1,330	1,450	1,600	118	37	35
19	72					136	1,040	1,390	1,450	100	31	34
20	79			b60		132	973	1,320	1,340	85	27	41
21	78					139	1,180	1,370	1,300	78	26	58
22	74				a90	126	1,260	1,550	1,320	70	24	65
23	71					129	1,340	1,680	1,280	60	22	67
24	74					119	1,190	1,780	1,220	50	23	80
25	72					115	914	1,880	1,150	45	23	74
26	72				a120	110	775	1,780	975	40	21	65
27	67			b45		99	739	1,600	900	39	20	58
28	67					93	820	1,710	859	45	18	55
29	63	*57			-	89	757	1,730	836	130	17	52
30	63	53			-	87	678	1,670	814	174	14	55
31	57	-			-	108	-	1,870	-	121	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,449	79	14	46.7	2,870
November	1,752	-	-	58.4	3,480
December	1,692	-	-	54.6	3,360
Calendar year 1949	80,285.6	1,300	1.3	220	159,200
January	1,595	-	-	51.5	3,160
February	1,815	-	-	64.8	3,600
March	3,405	-	-	110	6,750
April	21,882	1,340	146	729	43,400
May	34,949	1,880	538	1,227	69,320
June	43,344	2,080	814	1,445	85,970
July	8,709	773	39	281	17,270
August	1,244	96	14	40.1	2,470
September	1,031.2	80	6.6	34.4	2,050
Water year 1949-50	122,867.2	2,080	6.6	337	243,700

Peak discharge (base, 1,200 sec.-ft.).--Apr. 18 (7:15 a.m.) 1,640 sec.-ft.; June 3 (2 a.m.) 2,200 sec.-ft.; June 8 (5 a.m.) 2,150 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of 3 discharge measurements, weather records, and records for station above Sulphur Creek and near Utah-Wyoming State line.

b Stage-discharge relation affected by ice.

Chapman Canal at State line, near Evanston, Wyo.

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

Records available.--October 1945 to September 1950. April to September 1942 and May to September 1943 in Upper Bear River Water Commissioner's reports, Utah; April 1944 to September 1948 in Upper Bear River Water Commissioner's reports, Utah, and Bear River Hydrometric Data reports.

Extremes.--Maximum daily discharge during year, 69 second-feet May 23, 25; no flow about half of time.
1942-50: Maximum daily discharge observed, 129 second-feet Apr. 14, 1946; no flow at times in each year.

Remarks.--Records good, except those for period of no gage-height record, which are fair. Canal diverts water from Bear River in NW¼ 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	20	0				0	5.8	62	34	6.0	0
2	0	20	0				0	5.8	58	36	4.4	0
3	0	20	.1				0	6.2	59	36	3.3	0
4	0	19	0				0	6.2	48	a34	1.5	0
5	0	19	0				0	6.0	37	a32	0	0
6	0	19	0				5.7	5.5	45	29	0	0
7	0	19	.9				12	5.5	56	30	0	0
8	0	18	.6				31	5.3	58	28	0	0
9	0	20	.5				48	5.1	38	30	0	0
10	0	20	.2				55	4.9	23	35	0	0
11	0	20	0				54	4.4	22	37	0	0
12	7.8	22	0				61	4.2	29	35	0	0
13	15	24	0				60	4.0	34	32	0	2.4
14	19	28	0				66	4.2	30	27	0	2.1
15	17	30	0				60	4.9	35	18	0	1.9
16	17	17	0				57	14	38	7.0	0	2.7
17	17	1.4	0				59	48	33	6.7	0	3.1
18	18	.9	0				58	62	30	4.7	0	1.1
19	23	.8	0				48	55	29	3.1	0	.6
20	27	.6	0				36	47	30	2.7	0	.9
21	26	.4	0				18	63	30	5.5	0	.6
22	26	.2	0				16	59	32	3.8	0	0
23	25	.5	0				12	69	30	2.1	0	0
24	27	.7	0				10	62	28	4.7	0	0
25	26	.8	0				8.5	69	27	5.3	0	0
26	26	.7	0				6.7	61	27	10	0	0
27	26	.7	0				6.5	49	28	8.3	0	0
28	24	.6	0				6.7	54	28	8.3	0	0
29	24	.2	0				6.7	66	28	9.1	0	0
30	22	.1	0				6.2	57	28	13	0	0
31	22	-	0				-	65	-	8.0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	434.8	27	0	14.0	862
November	343.6	30	.1	11.5	682
December	2.3	.9	0	.07	5
Calendar year 1949	6,590.1	121	0	18.1	13,070
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	808.0	66	0	26.9	1,600
May	978.0	69	4.0	31.5	1,940
June	1,080.0	62	22	36.0	2,140
July	575.3	37	2.1	18.6	1,140
August	15.2	6.0	0	.49	30
September	15.4	3.1	0	.51	31
Water year 1949-50	4,252.6	69	0	11.7	8,430

a No gage-height record; discharge interpolated.

Bear River near Woodruff, Utah

Location.--Water-stage recorder, lat. 41°31'25", long. 111°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.

Drainage area.--870 square miles.

Records available.--April 1942 to September 1950.

Extremes.--Maximum discharge during year, 2,320 second-feet June 4 (gage height, 4.86 feet); minimum, 4.0 second-feet Sept. 10, 11.
1942-50: Maximum discharge, that of June 4, 1950; no flow at times in each year except 1950.

Remarks.--Records good except those for periods 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.2	38	50				272	624	1,710	708	102	12
2	13	34	42				325	618	2,100	648	85	10
3	10	34	46				342	740	2,230	612	70	8.4
4	8.8	34	44				302	746	2,160	549	63	7.4
5	9.2	34	53				290	702	1,550	475	61	6.7
6	8.4	35				130	321	660	1,520	417	56	6.4
7	15	35					399	660	1,630	368	53	6.4
8	18	35					566	594	1,890	359	47	5.8
9	22	34		52	50		690	566	2,050	376	47	7.0
10	23	40					636	583	1,380	359	46	5.8
11	26	43				120	560	618	1,240	376	43	8.8
12	23	47				100	594	600	1,410	394	43	6.4
13	27	44				90	*714	624	1,540	321	47	9.2
14	23	36				90	913	702	1,630	265	46	14
15	27	42				90	884	855	1,590	230	46	18
16	25	46				100	746	1,020	1,590	194	47	19
17	22	59				100	870	1,140	1,570	160	43	21
18	25	64	58		65	140	1,140	1,330	1,550	130	40	22
19	25	64		(*)		170	1,190	1,410	1,530	104	36	25
20	41	61		60		170	980	1,300	1,390	89	30	26
21	50	63				170	1,100	1,220	1,250	77	24	34
22	50	58				160	1,220	1,340	1,230	68	22	55
23	50	63			95	160	1,300	1,460	1,280	61	20	56
24	50	50				155	1,310	1,600	1,180	52	18	58
25	50	59				150	1,070	1,750	1,160	43	17	68
26	46	63				145	834	1,920	1,000	38	18	66
27	46	58		50	*130	140	759	1,900	834	34	15	59
28	43	*56				130	813	1,650	792	35	14	55
29	42	58			-	125	820	1,690	752	73	15	52
30	40	56			-	120	740	1,710	726	125	15	55
31	40	-			-	180	-	1,640	-	127	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	907.6	50	8.4	29.3	1,800
November	1,443	64	34	48.1	2,860
December	1,743	-	-	56.2	3,460
Calendar year 1949	76,207.4	1,210	0	209	151,200
January	1,662	-	-	53.6	3,300
February	1,975	-	-	70.5	3,920
March	4,105	180	-	132	8,140
April	22,700	1,310	272	757	45,020
May	33,972	1,920	566	1,096	67,380
June	43,464	2,230	726	1,449	86,210
July	7,867	708	34	254	15,600
August	1,243	102	14	40.1	2,470
September	803.3	68	5.8	26.8	1,590
Water year 1949-50	121,884.9	2,230	5.8	334	241,800

Peak discharge (base, 1,300 sec.-ft.).--Apr. 23 (8 to 10 p.m.) 1,410 sec.-ft.; June 4 (2 to 4 a.m.) 2,320 sec.-ft.; June 9 (8 to 10 a.m.) 2,150 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 1, Dec. 6 to Mar. 31 (no gage-height record Jan. 5-18, Jan. 26 to Feb. 26); discharge computed on basis of 2 discharge measurements, weather records, and records for station near Evanston, Wyo.

Diversions from Bear River between Woodruff and Randolph gaging stations, Utah

Between Woodruff and Randolph gaging stations, 12 canals divert water from Bear River for irrigation. Records available April to September 1950, in reports of Geological Survey. Seasonal records available 1944-47, 1949, in Bear River Hydrometric Data report. All canals equipped with water-stage recorders. Prior to 1949, six canals equipped with staff gages only, which were read at least three or four times weekly. Records of discharge are combined to show total diverted flow. Records good.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							90	132	1,000	720	60	56
2							90	117	1,060	710	39	53
3							91	143	1,140	677	31	49
4							91	161	1,170	662	25	46
5							78	157	1,070	633	30	42
6							60	144	1,020	632	27	42
7							70	139	1,020	609	24	43
8							110	123	1,050	602	22	42
9							171	104	1,060	604	20	42
10							140	94	1,000	609	18	45
11							115	96	957	598	18	49
12							112	99	931	568	18	53
13							113	95	957	525	20	47
14							150	112	1,000	465	20	49
15							183	202	1,020	430	20	54
16							137	322	1,030	386	19	54
17							154	451	1,040	338	17	58
18							222	547	1,040	293	18	58
19							253	653	1,030	195	29	59
20							200	716	994	139	33	59
21							208	742	951	112	30	62
22							256	807	915	75	30	59
23							309	900	908	64	27	64
24							326	978	869	55	24	67
25							298	999	856	43	23	65
26							234	1,040	853	37	23	34
27							192	1,080	816	38	23	31
28							184	1,050	759	41	29	30
29							188	1,040	743	64	57	24
30							160	1,040	729	76	57	20
31							-	996	-	66	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	4,985	326	60	166	9,890
May	15,279	1,080	94	493	30,310
June	28,988	1,170	729	966	57,500
July	11,066	720	37	357	21,950
August	885	60	17	28.5	1,760
September	1,456	67	20	48.5	2,890
The period	-	-	-	-	124,300

B. Q. West Side Canal at Kennedy Ranch, near Randolph, Utah

Location.--Water-stage recorder, lat. 41°48'00", long. 111°05'30", in NW¼SW¼ sec. 7, T. 12 N., R. 8 E., 800 feet upstream from road bridge, three-quarters of a mile west of Kennedy Ranch, and 10½ miles northeast of Randolph.

Records available.--October 1949 to September 1950 in reports of Geological Survey. April 1944 to September 1949 (irrigation season only) in Bear River Hydrometric Data reports.

Extremes.--Maximum daily discharge during year, 117 second-feet June 5; no flow Aug. 5-28.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Records show flow bypassing Bear River near Randolph, Utah, gaging station. About 3,800 acres of land irrigated from canal below station in Utah and Wyoming.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		5.4					22	51	108	61	5.4	25
2		4.3					22	47	112	57	3.2	23
3	9.5	4.3					20	51	117	53	1.8	20
4		4.6					18	58	113	52	.8	26
5	h9.5	4.6	b3			5	21	64	117	50	0	37
6		4.6					22	65	114	51	0	36
7		4.6					22	63	112	53	0	30
8		4.3					22	64	111	51	0	11
9	9.5	4.3					21	57	108	49	0	5.0
10		4.3					24	50	106	47	0	3.0
11		5.0					38	42	108	42	0	2.0
12	12	5.8		(†)			41	39	106	44	0	2.2
13	18	4.3					41	36	101	43	0	2.7
14	24	3.9					39	33	95	40	0	3.4
15	15	b4.0					39	35	95	39	0	3.2
16	15	b4.0		1	1	10	41	78	92	39	0	2.4
17	15	b4.5					34	88	88	41	0	3.0
18	19	b4.0					28	94	85	38	0	5.2
19	21	b4.5					29	96	86	24	0	5.4
20	21	b4.0					40	96	86	24	0	7.0
21	20	b4.5	3				51	96	87	9.0	0	11
22	23	b4.5					53	93	84	8.1	0	11
23	25	b5.0					52	84	84	5.6	0	13
24	26	5.4					58	80	80	4.6	0	28
25	25	6.6				15	67	82	77	3.7	0	40
26	12	5.8					68	84	78	3.6	0	10
27	9.2	4.6					67	89	76	4.1	0	3.9
28	9.0	3.9					60	92	70	2.5	0	4.8
29	9.0	4.1			-	17	54	98	64	7.2	7.0	5.2
30	8.8	4.8			-	b19	53	101	63	8.3	19	3.4
31	8.5	-			-	22	-	105	-	7.9	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	440.0	26	-	14.2	873
November	138.5	6.6	3.9	4.68	275
December	93	-	-	3	184
Calendar year	-	-	-	-	-
January	31	-	-	1	61
February	28	-	-	1	56
March	328	-	-	10.6	651
April	1,167	68	18	38.9	2,310
May	2,211	105	33	71.3	4,390
June	2,823	117	63	94.1	5,600
July	962.6	61	2.5	31.1	1,910
August	64.2	27	0	2.07	127
September	382.8	40	2.0	12.8	759
Water year 1949-50	8,669.1	117	0	23.8	17,200

† Field estimate made on this day.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.
Note.--No gage-height record Oct. 1-4, 6-13, Dec. 11 to Mar. 29; discharge computed on basis of 2 discharge measurements, 1 field estimate, weather records, and records for stations on nearby streams.

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.

Drainage area.--1,640 square miles.

Records available.--December 1943 to September 1950.

Extremes.--Maximum discharge during year, 2,100 second-feet June 6 (gage height, 8.30 feet); minimum, 19 second-feet Oct. 5.
1943-50: Maximum discharge, that of June 6, 1950; minimum, 14 second-feet July 16, 1948.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	84	95	80			364	932	1,540	544	163	36
2	24	84	95	80	100		419	893	1,540	497	172	34
3	23	84	95			180	425	851	1,620	447	171	32
4	23	84	85				416	867	1,850	408	160	32
5	22	84	80				414	909	2,060	362	148	30
6	22	85	80				423	932	2,080	300	142	30
7	26	85	90				468	932	1,810	279	136	29
8	28	86	102			270	511	922	1,550	280	128	29
9	29	86	102				528	893	1,450	263	121	29
10	30	89	63		90		576	835	1,520	246	116	30
11	28	89		65			632	797	1,720	251	114	36
12	29	89		(*)			641	773	1,710	268	110	36
13	44	90					638	776	1,410	282	109	35
14	42	89					652	770	1,250	275	108	36
15	48	89					685	773	1,200	232	104	37
16	47	88				245	761	788	1,240	206	100	37
17	47	86					844	841	1,300	190	97	37
18	52	90			100		860	949	1,290	177	95	35
19	59	93					867	1,000	1,260	198	92	34
20	57	96					955	1,070	1,300	182	86	34
21	56	93	80	70			1,080	1,170	1,320	176	80	36
22	56	93		75			1,090	1,250	1,290	185	79	37
23	63	96		85	120	450	1,100	1,240	1,220	185	79	42
24	64	95		95			1,130	1,180	1,080	169	73	44
25	66	96					1,150	1,170	1,030	177	70	39
26	79	96				380	1,200	1,230	986	152	67	59
27	81	97		100	150	330	1,180	1,360	893	145	66	79
28	81	102				310	1,060	1,530	758	145	64	81
29	82	99			-	*291	969	1,650	649	160	49	82
30	84	*99			-	289	942	1,590	582	152	39	88
31	80	-			-	315	-	1,500	-	155	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,497	84	22	48.3	2,970
November	2,716	102	84	90.5	5,390
December	2,567	102	-	82.8	5,090
Calendar year 1949	65,112	916	20	178	129,200
January	2,355	-	-	76.0	4,670
February	2,930	-	-	105	5,810
March	8,865	-	-	286	17,580
April	22,980	1,200	364	766	45,580
May	32,373	1,650	770	1,044	64,210
June	40,508	2,080	582	1,350	80,350
July	7,688	544	145	248	15,250
August	3,175	172	37	102	6,300
September	1,255	88	29	41.8	2,490
Water year 1949-50	128,909	2,080	22	353	255,700

Peak discharge (base, 800 sec.-ft.).--Apr. 26 (6 p.m.) 1,220 sec.-ft.; June 6 (9:30 a.m. to 12 m.) 2,100 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 4-7, Dec. 11 to Mar. 28 (no gage-height record Jan. 5-11, Mar. 18, 19, 24-28); discharge computed on basis of 1 discharge measurement, weather records, records for station near Woodruff, Utah, and above Sublette Creek near Cokeville, Wyo.

Bear River above Sublette Creek, near Cokeville, Wyo.

Location.--Water-stage recorder, lat. 42°02'20", long. 110°57'05", in SW¼NE¼ sec. 20, T. 24 N., R. 119 W., 1,500 feet upstream from Sublette Creek and 3½ miles south of Cokeville.

Drainage area.--2,110 square miles.

Records available.--April 1948 to September 1950.

Extremes.--Maximum discharge during year, 1,820 second-feet June 10 (gage height, 9.40 feet); maximum gage height, 9.50 feet June 8, 9, affected by backwater from Collett Creek Branch of Smiths Fork; minimum, 43 second-feet Oct. 5.
1948-50: Maximum discharge, that of June 10, 1950; minimum, 35 second-feet Aug. 29, 1948, Sept. 17, 1949.

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 this station and Collett Creek Branch of Smiths Fork.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	104	120	100			424	1,150	1,420	600	202	64
2	48	105	123	100	145		656	1,130	1,470	608	204	63
3	47	105	115	90		205	794	1,140	1,500	571	211	62
4	46	104	100				a800	1,140	1,580	527	206	60
5	46	105	100				a800	1,130	1,680	482	192	58
6	47	105	100				a780	1,140	1,760	418	182	55
7	54	107	122				a750	1,140	1,750	394	175	55
8	59	110	131				743	1,140	1,740	382	168	57
9	59	111	126				800	1,120	1,770	345	162	57
10	59	113	116				788	1,110	1,790	355	155	58
11	59	113					770	1,060	1,770	349	149	60
12	58	111		75	135		779	1,010	1,750	439	148	61
13	59	110				450	*764	968	1,720	398	142	63
14	62	109					776	952	1,710	391	140	63
15	72	111					816	940	1,680	373	138	a65
16	72	114					856	924	a1,650	340	137	a70
17	76	111					924	943	a1,600	296	134	a72
18	80	109					977	980	a1,500	278	130	a74
19	84	110					996	983	1,420	263	126	a76
20	90	114					986	1,040	1,410	265	123	a78
21	90	118	100	90			1,010	1,120	1,410	251	116	a80
22	89	126		100	150	700	1,050	1,140	1,390	240	108	a80
23	85	114		120			1,090	1,160	1,380	240	105	a80
24	89	115		130	160	635	1,110	1,180	1,360	235	104	a80
25	90	119		(*)	170	556	1,130	1,200	1,290	222	99	a80
26	93	118				533	1,160	1,210	1,200	212	96	a80
27	101	116		145	180	488	1,190	1,230	1,130	204	92	a80
28	106	120				439	1,240	1,250	1,080	199	90	a110
29	110	123			-	398	1,240	1,280	936	211	87	a115
30	109	*122			-	360	1,200	1,340	809	228	80	a120
31	106	-			-	353	-	1,380	-	210	67	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,293	110	46	74.0	4,550
November	3,372	126	104	112	6,690
December	3,253	-	-	105	6,450
Calendar year 1949	76,585	955	36	210	151,900
January	3,020	-	-	97.4	5,990
February	4,050	-	-	145	8,030
March	13,637	-	-	440	27,050
April	27,399	1,240	424	913	54,350
May	34,630	1,380	924	1,117	68,690
June	44,655	1,790	809	1,488	88,570
July	10,526	608	199	340	20,880
August	4,268	211	67	138	8,470
September	2,176	120	55	72.5	4,320
Water year 1949-50	153,379	1,790	46	420	304,000

Peak discharge (base, 800 sec.-ft.).--June 10 (12:15 a.m.) 1,820 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for stations at Border, Wyo., and near Randolph, Utah.
Note.--Stage-discharge relation affected by ice Dec. 4-6, Dec. 11 to Mar. 23 (no gage-height record Jan. 13-23); discharge computed on basis of 1 discharge measurement, weather records, records for Bear River at Border, Wyo., Bear River near Randolph, Utah, and Smiths Fork at Cokeville, Wyo.

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-Idaho State line, half a mile west of Border, and 2.1 miles upstream from Thomas Fork. Datum of gage is 6,051.63 feet above sea level, unadjusted.

Drainage area.--2,490 square miles.

Records available.--October 1937 to September 1950.

Average discharge.--13 years, 394 second-feet.

Extremes.--Maximum discharge during year, 2,900 second-feet June 9 (gage height, 8.77 feet); minimum daily, 120 second-feet Dec. 12.
1943-50: Maximum discharge, that of June 9, 1950; minimum daily, 30 second-feet Aug. 18-22, 1940.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	247	*234	160	230	280	580	1,700	2,580	1,420	488	191
2	134	242	213	160	230	290	600	1,650	2,660	1,340	483	186
3	132	242	223	150	230	300	700	1,650	2,700	1,300	462	186
4	130	242	170	140	215	320	950	1,670	2,720	1,240	459	180
5	134	238	165	135	215	330	950	1,630	2,700	1,180	438	171
6	137	236	160	135	215	380	900	1,610	2,640	1,110	418	176
7	146	236	170	135	215	450	850	1,600	2,650	1,070	406	173
8	164	238	190	135	215	550	891	1,610	2,780	1,030	388	178
9	217	242	200	135	225	650	1,000	1,600	2,880	966	371	182
10	228	247	200	140	220	725	992	1,590	2,860	935	371	195
11	223	253	180	145	210	725	971	1,540	2,810	927	342	201
12	230	247	120	145	210	700	1,020	1,490	2,700	940	330	199
13	230	238	130	145	210	600	1,080	1,490	2,600	923	308	203
14	232	236	150	145	210	550	*1,160	1,520	2,560	867	304	209
15	234	240	150	145	220	550	1,190	1,600	2,540	838	294	211
16	236	240	160	140	220	550	1,270	1,660	2,550	788	292	213
17	240	238	160	140	210	520	1,380	1,790	2,530	737	288	247
18	260	234	160	140	210	520	1,500	1,930	2,500	684	283	245
19	274	230	160	140	210	560	1,540	2,060	2,480	652	276	245
20	276	232	160	145	210	650	1,510	2,160	2,420	633	272	251
21	274	230	160	170	210	750	1,540	2,130	2,350	615	267	260
22	267	223	160	170	210	850	1,600	2,130	2,300	582	253	260
23	260	228	160	200	210	850	1,690	2,210	2,260	568	245	260
24	253	238	160	220	215	850	1,710	2,320	2,230	551	247	262
25	253	245	160	*225	220	850	1,700	2,420	2,210	520	247	265
26	253	236	160	220	220	800	1,700	2,480	2,170	491	238	262
27	256	236	160	240	220	700	1,720	2,500	2,060	475	217	256
28	260	242	170	240	250	650	1,790	2,480	1,940	483	215	274
29	262	242	160	240	-	650	1,800	2,480	1,790	531	211	285
30	260	242	160	230	-	550	1,760	2,520	1,630	542	209	294
31	256	-	160	230	-	550	-	2,540	-	529	199	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,839	276	128	221	13,560
November	7,160	253	223	239	14,200
December	5,225	234	120	169	10,360
Calendar year 1949	133,859	1,550	-	367	265,500
January	5,240	240	135	169	10,390
February	6,085	250	210	217	12,070
March	18,250	850	280	589	36,200
April	38,044	1,800	580	1,268	75,460
May	59,760	2,540	1,490	1,928	118,500
June	73,800	2,880	1,630	2,460	146,400
July	25,467	1,420	475	822	50,510
August	9,821	488	199	317	19,480
September	6,720	294	171	224	13,330
Water year 1949-50	262,411	2,880	120	719	520,500

Peak discharge (base, 1,000 sec.-ft.).--June 9 (5 to 10 p.m.) 2,900 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4 to Apr. 7 (no gage-height record Jan. 18-24, Feb. 2-8, Mar. 12 to Apr. 7); discharge computed on basis of 1 discharge measurement, weather records, and combined flow of furnished records of Bear River below Stewart Dam, near Montpelier, Idaho, and Rainbow inlet canal near Dingle, Idaho.

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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 Union Pacific (Oregon Short Line) Railroad, and 5 miles southeast of Dingle.

Drainage area.--2,780 square miles.

Records available.--June 1913 to September 1916, January 1919 to September 1950.

Average discharge.--34 years, 515 second-feet.

Extremes.--Maximum discharge during year, 3,780 second-feet June 10 (gage height, 10.76 feet); minimum daily, 164 second-feet Oct. 1.
1913-16, 1919-50: 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 ice effect or 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. Five discharge measurements were made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	164	306	*276	235	290	340	641	2,200	3,210	1,740	584	246
2	170	296	270	235	290	*356	784	2,130	3,220	1,550	550	237
3	175	292	251	225	285	370	875	2,120	3,350	1,510	531	234
4	172	289	210	205	270	400	900	2,120	3,440	1,440	519	234
5	175	289	205	195	270	420	925	2,100	3,460	1,390	516	223
6	177	289	210	195	270	450	917	2,060	3,410	1,330	485	226
7	188	286	*238	195	270	540	912	2,040	3,310	1,250	470	220
8	205	286	250	200	270	640	1,060	2,040	3,310	1,200	463	217
9	230	286	250	205	280	760	1,220	2,050	3,470	1,160	445	231
10	263	292	250	200	275	800	1,300	2,050	3,740	1,100	427	237
11	273	299	235	205	265	830	1,280	1,990	3,760	1,100	420	246
12	270	296	170	210	265	800	*1,310	1,910	3,550	1,090	398	249
13	270	283	190	210	265	740	1,410	1,860	3,320	1,100	380	249
14	273	273	200	215	265	660	1,500	1,880	3,150	1,040	362	255
15	273	270	210	210	270	640	1,540	1,990	3,040	996	359	264
16	276	270	220	200	270	630	1,620	2,110	2,980	950	355	270
17	286	270	220	205	260	637	1,710	2,270	2,930	883	352	293
18	303	270	220	205	260	652	1,840	2,480	2,880	812	342	299
19	334	267	220	*205	260	752	1,940	2,620	2,820	784	338	299
20	334	267	220	210	260	891	1,940	2,810	2,770	728	325	302
21	334	267	220	230	260	900	1,920	2,990	2,720	732	318	309
22	330	263	221	230	260	900	1,980	3,010	2,640	688	312	315
23	316	257	224	270	260	883	2,050	2,990	2,560	660	299	318
24	306	267	227	275	265	887	2,140	3,050	2,520	641	296	318
25	303	276	230	285	270	862	2,170	3,160	2,480	603	290	325
26	303	286	227	270	275	820	2,160	3,290	2,450	576	290	331
27	303	279	233	290	275	812	2,150	3,360	2,400	550	277	325
28	303	283	233	305	320	792	2,210	3,360	2,270	538	264	318
29	309	283	227	300	-	776	2,260	3,280	2,120	573	261	345
30	316	283	227	290	-	732	2,260	3,230	1,920	603	261	359
31	313	-	227	290	-	599	-	3,220	-	607	258	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,247	334	164	266	16,360
November	8,420	306	257	281	16,700
December	7,011	276	170	226	*13,910
Calendar year 1949	163,770	1,800	123	449	324,800
January	7,200	305	195	232	14,280
February	7,595	320	260	271	15,060
March	21,271	900	340	686	42,190
April	46,924	2,260	641	1,564	93,070
May	77,770	3,360	1,860	2,509	154,300
June	89,200	3,760	1,920	2,973	176,900
July	29,924	1,740	538	965	59,350
August	11,747	584	258	379	23,300
September	8,294	359	217	276	16,450
Water year 1949-50	323,603	3,760	164	887	641,900

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 4-21, Jan. 1, 2, 18-23, Feb. 28 to Mar. 11. No gage-height record Jan. 3-17, Jan. 24 to Feb. 27, Mar. 12-16; discharge computed on basis of records for Rainbow inlet canal near Dingle, Dingle inlet canal, and Bear River below Stewart Dam, near Montpelier.

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 1950. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Extremes.--Maximum discharge during year, 3,070 second-feet June 12 (gage height, 7.18 feet); minimum daily, 55 second-feet Oct. 1.
1945-50: Maximum discharge, that of June 12, 1950; minimum daily, 16 second-feet Sept. 13, 1948.

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. Two discharge measurements made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	267	248	138	*246	b305	616	2,160	2,770	1,360	568	125
2	68	261	239	b135	a230	*b310	725	2,100	2,490	1,160	529	118
3	105	252	224	b135	*a215	*309	921	2,080	2,410	1,110	497	111
4	109	252	169	*b135	b215	342	1,050	2,080	2,890	1,050	509	106
5	109	248	166	b135	b215	384	1,030	2,080	2,950	996	506	103
6	111	245	164	135	*214	412	938	2,040	2,780	950	474	99
7	118	242	177	128	214	*b500	921	2,020	2,380	868	468	99
8	140	245	203	128	*b215	*b595	1,040	2,020	2,120	793	459	106
9	161	245	*209	*138	b215	*706	1,180	2,000	2,260	766	440	115
10	189	258	b210	142	*217	*758	1,240	2,020	2,360	762	415	123
11	203	267	b190	148	211	*b770	1,250	1,980	2,620	801	397	125
12	215	267	*b120	*150	217	b745	1,230	1,900	2,880	793	384	125
13	215	255	b145	*150	*b210	*b685	1,280	1,840	2,920	793	369	155
14	212	239	*150	160	206	*606	1,380	1,800	2,740	836	336	166
15	200	236	155	158	*214	606	1,450	1,850	2,620	917	301	176
16	212	258	*166	*145	211	578	1,520	1,940	2,540	868	283	203
17	215	258	166	158	*211	565	1,640	2,040	2,500	816	277	217
18	230	248	166	*b145	b210	571	1,700	2,240	2,480	751	274	228
19	239	248	*b165	*155	b210	612	1,820	2,350	2,450	684	251	214
20	255	245	b165	171	*211	736	1,900	2,510	2,390	659	237	211
21	252	248	*b165	190	214	848	1,860	2,640	2,340	641	246	220
22	255	248	164	200	b210	884	1,900	2,720	2,270	599	243	225
23	242	242	*166	*211	203	848	1,940	2,740	2,210	558	223	231
24	239	248	166	228	*211	872	1,980	2,720	2,140	545	211	231
25	245	255	b170	b230	220	884	2,070	2,780	2,080	519	211	254
26	252	264	169	b230	240	804	2,080	2,860	1,860	509	192	266
27	252	264	*166	*b235	254	774	2,060	2,880	1,560	509	187	269
28	258	258	172	237	*b275	728	2,100	2,940	1,490	506	171	269
29	261	255	b165	b235	-	688	2,160	2,930	1,420	532	168	280
30	267	233	*b160	*231	-	630	2,170	2,860	1,540	555	148	306
31	273	-	161	243	-	602	-	2,820	-	568	135	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,157	273	55	199	12,210
November	7,551	267	233	252	14,980
December	5,421	248	120	175	10,750
Calendar year 1949	120,415	1,380	43	330	238,800
January	5,359	243	128	173	10,630
February	6,134	275	203	219	12,170
March	19,657	884	305	634	38,990
April	45,151	2,170	616	1,505	89,560
May	71,940	2,940	1,800	2,321	142,700
June	70,460	2,950	1,420	2,349	139,800
July	23,774	1,360	506	767	47,160
August	10,109	568	135	326	20,050
September	5,476	306	99	183	10,860
Water year 1949-50	277,189	2,950	55	759	549,900

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

Bear River below Stewart Dam, near Montpelier, Idaho

Location.--Water-stage recorder, 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 1950. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Average discharge.--28 years, 80.6 second-feet.

Extremes.--Maximum discharge during year, 805 second-feet June 7 (gage height, 5.57 feet); minimum daily, 9 second-feet Mar. 29 to Apr. 2.
1923-50: Maximum daily discharge, 3,050 second-feet June 3, 1923; minimum daily, 1 second-foot on several days in 1931, 1934, 1940, 1948.

Remarks.--Records good. Many diversions above station for irrigation. Water diverted at Stewart Dam above station to Bear Lake.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	11	11	11	12	13	9	16	24	115	14	19
2	10	11	11	11	a12	13	9	15	305	66	16	19
3	10	11	11	11	a12	13	10	14	497	24	18	18
4	10	11	11	11	a12	13	11	14	41	24	18	17
5	10	11	10	11	a12	13	11	14	39	23	19	16
6	11	11	10	11	a11	14	11	14	226	24	18	16
7	11	11	11	10	a11	15	10	13	567	24	18	15
8	11	11	11	10	a11	16	10	14	701	26	18	16
9	11	11	11	10	a11	16	10	14	636	27	19	16
10	11	11	11	10	11	15	11	13	653	28	19	18
11	11	11	10	10	10	15	11	13	565	28	18	18
12	11	11	10	10	11	14	11	13	183	28	18	18
13	11	12	10	11	11	14	11	13	33	27	18	19
14	11	11	10	11	11	14	11	13	27	24	17	19
15	11	11	10	11	11	14	11	14	26	20	16	20
16	11	11	10	11	11	13	11	14	26	18	16	20
17	11	11	10	11	11	12	11	15	26	18	17	20
18	12	11	10	11	11	13	12	16	26	16	17	20
19	11	11	10	11	12	13	13	17	26	16	18	21
20	12	11	10	11	12	13	13	18	26	15	21	21
21	12	11	10	11	12	14	12	18	26	14	21	21
22	13	11	10	11	12	12	12	20	26	14	22	21
23	13	11	10	12	12	11	13	20	27	13	22	22
24	13	11	10	12	12	11	14	21	27	13	22	22
25	13	11	10	12	12	11	14	21	27	12	22	22
26	12	12	10	12	12	10	14	22	283	12	22	23
27	11	12	10	12	13	10	15	24	450	12	22	23
28	11	12	10	12	13	10	15	24	445	12	22	23
29	11	12	10	a12	-	9	16	24	349	12	21	23
30	11	11	10	a12	-	9	17	24	120	14	21	24
31	11	-	10	a12	-	9	-	24	-	14	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	348	13	10	11.2	690
November	335	12	11	11.2	664
December	318	11	10	10.3	631
Calendar year 1949	5,126	66	9	14.0	10,160
January	344	12	10	11.1	682
February	324	13	10	11.6	643
March	392	16	9	12.6	778
April	359	17	9	12.0	712
May	529	24	13	17.1	1,050
June	6,433	701	24	214	12,760
July	733	115	12	23.6	1,450
August	590	22	14	19.0	1,170
September	590	24	15	19.7	1,170
Water year 1949-50	11,295	701	9	30.9	22,400

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, 2 miles downstream from Bennington Creek, and 6½ miles northwest of Montpelier.

Records available.--October 1945 to September 1950. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Average discharge.--28 years, 507 second-feet.

Extremes.--Maximum discharge during year, 2,640 second-feet June 12 (gage height, 6.47 feet); minimum daily, 112 second-feet Oct. 16.
1922-50: 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.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	515	806	*372	285	615	*264	355	519	616	2,340	1,700	1,800
2	515	887	375	300	615	290	390	495	642	2,240	1,710	1,790
3	519	898	375	400	620	315	390	491	972	2,120	1,730	1,790
4	519	656	370	565	625	335	400	495	1,470	1,960	1,750	1,780
5	519	414	380	560	625	310	440	487	1,550	1,810	1,800	1,780
6	331	338	*370	595	565	285	545	471	1,480	1,680	1,820	1,770
7	263	331	370	715	385	270	705	452	1,450	1,600	1,820	1,770
8	282	335	354	710	235	270	860	471	1,770	1,580	1,810	1,750
9	291	331	361	720	205	295	940	503	2,000	1,580	1,790	1,740
10	291	348	320	770	205	270	965	511	2,220	1,590	1,710	1,700
11	300	354	260	845	270	260	*1,090	495	2,420	1,620	1,620	1,680
12	300	527	320	830	465	265	*1,200	471	2,580	1,640	1,590	1,570
13	180	581	360	815	635	260	1,210	452	1,970	1,630	1,590	1,160
14	127	586	600	810	745	260	1,120	448	1,670	1,610	1,590	1,160
15	117	581	600	805	810	255	1,010	467	1,390	1,610	1,590	1,380
16	112	437	470	800	805	290	919	507	1,090	1,650	1,580	1,440
17	120	372	370	*791	810	335	816	552	972	1,700	1,600	1,450
18	154	368	340	790	830	335	753	598	1,080	1,760	1,610	1,460
19	174	368	345	800	830	305	734	642	1,210	1,770	1,600	1,460
20	166	364	350	740	835	280	692	656	1,370	1,730	1,600	1,320
21	156	361	350	520	835	280	656	647	1,430	1,690	1,600	1,220
22	152	361	350	290	830	280	652	629	1,440	1,650	1,610	1,210
23	152	361	350	230	785	290	674	616	1,530	1,620	1,610	1,210
24	152	368	370	270	615	295	678	616	1,600	1,590	1,600	1,220
25	280	368	440	390	420	295	647	616	1,630	1,570	1,600	1,220
26	590	375	460	565	350	270	590	573	1,680	1,610	1,600	1,240
27	670	378	460	645	340	240	565	507	1,860	1,630	1,600	1,250
28	475	375	490	640	295	220	577	499	2,110	1,640	1,650	1,290
29	607	375	570	640	-	215	581	519	2,370	1,650	1,740	1,310
30	797	378	520	635	-	240	556	548	2,420	1,650	1,790	1,310
31	816	-	460	625	-	295	-	594	-	1,670	1,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	10,642	816	112	343	21,110
November	13,582	898	331	453	26,940
December	12,482	600	260	403	24,760
Calendar year 1949	200,444	1,250	95	549	397,600
January	19,096	845	230	616	37,880
February	16,200	835	205	579	32,130
March	8,669	335	215	280	17,190
April	21,710	1,210	355	724	43,060
May	16,547	656	448	534	32,820
June	47,992	2,580	616	1,600	95,190
July	53,190	2,340	1,570	1,716	105,500
August	51,810	1,820	1,580	1,671	102,800
September	44,250	1,800	1,160	1,474	87,730
Water year 1949-50	316,150	2,580	112	866	627,100

* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4-7, 10-13, Jan. 18 to Feb. 10, Feb. 25 to Mar. 1. No gage-height record Dec. 14 to Jan. 17, Feb. 11-24, Mar. 2 to Apr. 11; discharge computed on basis of 2 discharge measurements, weather records, and records for nearby stations.

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 1950.

Average discharge.--35 years (1911-16, 1919-20, 1921-50), 741 second-feet.

Extremes.--Maximum daily discharge during year, 2,580 second-feet June 10; minimum daily, 68 second-feet Mar. 26.
1911-16, 1919-50: 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 were 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. One discharge measurement made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	389	640	412	386	990	555	418	954	1,730	2,250	1,830	1,670
2	194	543	624	390	1,090	531	207	1,040	1,650	2,460	1,840	1,610
3	655	428	312	813	1,070	463	604	978	1,780	2,250	1,840	1,610
4	701	513	182	720	565	559	743	962	1,790	2,310	1,820	1,720
5	962	163	443	991	581	444	719	964	1,760	2,030	1,850	1,690
6	946	176	710	999	670	831	773	926	1,810	1,900	1,820	1,600
7	744	739	545	707	649	*830	919	953	1,820	1,860	1,840	1,640
8	551	701	539	300	808	849	1,070	1,010	1,940	1,860	1,860	1,690
9	91	772	654	999	904	596	1,110	975	2,450	1,870	1,860	1,700
10	819	716	363	1,100	920	623	1,140	1,020	2,580	1,870	1,840	1,690
11	535	432	392	979	843	670	1,130	1,030	2,530	1,830	1,860	1,610
12	857	251	*869	992	833	399	1,200	967	2,550	1,830	1,860	1,670
13	572	136	689	915	962	743	a1,630	976	2,170	1,860	1,850	1,690
14	425	808	377	573	946	618	2,010	837	1,780	1,840	1,850	1,610
15	294	623	385	956	1,020	615	2,010	893	1,840	1,860	1,780	1,520
16	479	558	624	1,230	928	577	2,000	983	1,820	1,870	1,710	1,560
17	652	506	487	1,080	999	650	2,020	998	1,850	1,800	1,700	1,560
18	749	548	477	943	709	281	2,030	1,000	1,830	1,780	1,720	1,570
19	709	388	745	727	251	153	1,990	1,020	1,820	1,780	1,740	1,530
20	843	432	670	544	927	726	1,490	989	1,800	1,770	1,740	1,520
21	902	657	562	233	1,030	658	1,040	1,140	1,870	1,780	1,740	1,530
22	611	647	683	425	477	489	972	1,140	1,850	1,780	1,720	1,520
23	483	749	677	*704	689	493	953	1,160	1,860	1,770	1,730	1,510
24	616	325	373	838	593	503	964	1,180	1,860	1,800	1,710	1,490
25	416	524	427	863	592	311	972	1,220	1,850	1,830	1,720	1,500
26	658	341	249	804	526	68	1,030	1,260	1,820	1,850	1,700	1,530
27	*961	492	817	901	535	553	1,010	1,260	1,970	1,850	1,710	1,540
28	654	844	847	339	495	655	1,010	1,320	2,230	1,830	1,700	1,510
29	137	802	766	450	-	640	1,020	1,310	2,280	1,810	1,710	1,520
30	133	544	648	957	-	658	879	1,430	2,400	1,720	1,720	1,510
31	804	-	596	989	-	564	-	1,480	-	1,770	1,720	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	18,542	962	91	598	36,780
November	15,998	844	136	533	31,730
December	17,144	869	182	553	34,000
Calendar year 1949	264,596	1,420	91	725	524,800
January	23,847	1,230	233	769	47,300
February	21,602	1,090	251	772	42,850
March	17,305	849	68	558	34,320
April	35,063	2,030	207	1,169	69,550
May	33,375	1,480	837	1,077	66,200
June	59,290	2,580	1,650	1,976	117,600
July	58,670	2,460	1,720	1,893	116,400
August	55,090	1,860	1,700	1,777	109,300
September	47,620	1,720	1,490	1,587	94,450
Water year 1949-50	403,546	2,580	68	1,106	800,500

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of output record of Soda plant.

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.

Records available.--October 1945 to September 1950. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Average discharge.--28 years, 741 second-feet.

Extremes.--Maximum daily discharge during year, 3,240 second-feet Apr. 17; minimum daily 69 second-feet Mar. 26.
1922-50: 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 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. Four discharge measurements made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	737	370	914	128	1,070	867	460	1,790	1,840	2,070	1,680	1,710
2	469	713	956	639	1,030	756	485	1,690	1,980	1,970	1,680	1,730
3	470	1,270	582	590	1,450	1,280	877	1,830	1,890	2,150	1,680	1,710
4	756	531	296	843	899	276	983	1,350	1,130	2,100	1,680	1,700
5	974	726	473	1,410	874	700	1,110	1,410	2,050	2,060	1,680	1,720
6	1,030	662	804	983	1,250	1,000	1,070	1,410	2,150	1,940	1,680	1,740
7	1,520	661	1,130	918	1,010	1,230	1,440	1,400	1,760	1,750	1,680	1,700
8	908	400	622	949	1,160	1,190	1,420	1,660	2,050	1,540	1,680	1,690
9	386	1,250	561	908	1,160	1,110	1,530	1,300	2,330	1,650	1,680	1,710
10	832	969	1,260	754	1,620	1,150	2,270	1,450	1,930	1,760	1,630	1,720
11	1,100	1,290	478	1,650	1,250	1,060	2,100	1,830	1,340	1,750	1,620	1,910
12	499	262	798	1,160	440	880	1,880	1,290	1,910	1,630	1,850	1,650
13	1,130	485	613	1,490	1,350	1,040	1,870	1,580	2,490	1,600	1,690	1,740
14	1,070	528	868	1,370	1,020	862	2,240	1,000	1,670	1,630	1,770	1,880
15	539	714	534	177	887	579	1,950	1,390	1,900	1,710	1,780	1,780
16	195	894	959	967	1,380	958	1,700	1,400	2,400	1,700	1,760	1,680
17	1,080	898	568	1,450	1,140	1,170	3,240	1,660	1,510	1,660	1,650	1,480
18	1,160	663	373	1,400	816	650	2,990	2,140	1,340	1,690	1,630	1,190
19	1,110	758	1,130	837	830	404	2,750	1,830	1,400	1,650	1,630	1,840
20	904	400	715	1,210	943	604	2,500	909	1,610	1,660	1,630	1,860
21	1,040	1,200	1,360	919	927	1,150	2,150	1,120	1,670	1,710	1,630	1,820
22	1,540	835	867	196	1,420	1,100	1,900	2,140	1,760	1,720	1,630	1,730
23	879	937	799	853	831	872	1,450	1,400	1,750	1,660	1,640	1,690
24	825	660	926	1,450	1,150	959	1,580	1,780	1,590	1,660	1,640	1,810
25	385	1,080	397	1,110	626	600	1,370	1,860	1,740	1,660	1,560	1,900
26	1,060	675	296	1,500	490	69	2,160	1,890	1,680	1,660	1,610	1,650
27	1,160	405	759	775	866	1,270	2,140	2,090	1,630	1,640	1,760	1,500
28	1,410	734	1,180	1,030	1,350	979	1,870	1,680	1,770	1,740	1,700	1,530
29	1,030	682	994	316	-	815	1,670	1,860	2,220	1,740	1,680	1,930
30	124	1,110	1,320	999	-	876	1,060	1,330	2,160	1,580	1,680	2,000
31	534	-	763	1,290	-	941	-	1,370	-	1,610	1,680	-

Month	Second-foot-days	Maximum	Minimum	Maan	Runoff in acre-feet
October	26,856	1,540	124	866	53,270
November	22,762	1,290	262	759	45,150
December	24,295	1,360	296	784	48,190
Calendar year 1949	309,015	1,750	74	847	612,900
January	30,271	1,650	128	976	60,040
February	29,239	1,620	440	1,044	57,990
March	27,397	1,280	69	884	54,340
April	52,215	3,240	460	1,740	103,600
May	48,839	2,140	909	1,575	96,870
June	54,650	2,490	1,130	1,822	108,400
July	54,050	2,150	1,540	1,744	107,200
August	51,970	1,850	1,560	1,676	103,100
September	51,700	2,000	1,190	1,723	102,500
Water year 1949-50	474,244	3,240	69	1,300	940,600

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 1950. October 1889 to September 1917 (gage heights only January to September 1917) at site 5 miles downstream.

Extremes.--Maximum discharge during year, 4,420 second-feet Apr. 17 (gage height, 5.61 feet); minimum, 66 second-feet Oct. 6 (gage height, 1.13 feet); minimum daily, 256 second-feet Oct. 30.

1889-1916, 1944-50: 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 (backwater from ice), site and datum then in use; minimum, 0.6 second-foot June 14, 1949; minimum daily, 14 second-feet July 4, 1945, July 5, 1947.

Remarks.--Records good except those for period of no gage-height record, which are fair. 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	710	341	1,010	269	1,090	1,110	565	1,840	2,010	2,070	1,460	1,550
2	481	613	861	577	1,280	934	676	1,860	2,250	1,950	1,460	1,560
3	430	1,120	666	711	1,270	1,280	866	2,010	2,060	2,050	1,460	1,550
4	509	589	445	907	1,100	552	1,040	1,670	1,430	1,990	1,470	1,550
5	966	520	451	1,300	1,000	799	1,120	1,530	2,020	1,940	1,470	1,590
6	921	806	648	1,260	1,160	1,140	995	1,480	2,230	1,800	1,460	1,610
7	1,270	534	1,020	708	1,110	1,180	1,580	1,560	2,010	1,620	1,470	1,560
8	1,010	410	708	1,110	1,160	1,210	1,480	1,600	2,130	1,440	1,480	1,550
9	435	1,050	756	946	1,350	1,030	1,660	1,740	2,420	1,470	1,490	1,580
10	828	914	1,070	914	1,600	1,340	2,390	1,610	2,050	1,650	1,430	1,580
11	980	1,200	781	1,560	1,300	1,060	2,210	2,000	1,460	1,620	1,460	1,790
12	531	479	857	1,110	610	1,030	2,000	1,570	1,830	1,550	1,670	1,550
13	927	450	587	1,620	1,250	1,020	2,030	1,570	2,450	1,500	1,510	1,590
14	1,140	528	775	1,400	1,140	898	2,310	1,310	1,890	1,510	1,580	1,700
15	494	636	800	478	740	535	2,090	1,700	1,810	1,580	1,610	1,600
16	374	871	801	918	1,600	961	1,860	1,680	2,440	1,560	1,610	1,440
17	847	944	719	1,360	1,160	1,130	3,410	1,860	1,670	1,500	1,490	1,490
18	1,230	582	442	1,640	884	586	3,220	2,120	1,400	1,510	1,460	970
19	1,080	791	1,170	760	957	562	2,880	2,200	1,510	1,470	1,460	1,610
20	938	402	732	1,350	1,010	627	2,750	1,100	1,650	1,480	1,460	1,650
21	998	1,110	1,240	835	915	1,100	2,400	1,310	1,700	1,530	1,460	1,640
22	1,410	955	919	544	1,440	1,230	2,070	2,120	1,750	1,540	1,440	1,600
23	990	748	818	883	1,010	917	1,750	1,690	1,800	1,470	1,440	1,530
24	778	864	939	1,630	1,120	934	1,880	2,070	1,700	1,460	1,430	1,700
25	335	876	713	a1,100	881	726	1,550	2,150	1,860	1,440	1,380	1,820
26	1,010	892	386	a1,600	646	197	2,060	2,170	1,800	1,440	1,380	1,600
27	1,060	415	601	a900	1,020	1,170	2,420	2,230	1,690	1,440	1,570	1,400
28	1,340	662	1,140	a1,050	1,370	1,030	2,260	2,120	1,740	1,540	1,540	1,380
29	969	710	1,000	a500	-	823	1,880	2.130	2.170	1,520	1,540	1,770
30	256	949	1,260	a1,000	-	825	1,330	1,630	2,170	1,390	1,500	1,890
31	537	-	1,020	1,370	-	927	-	1,700	-	1,390	1,530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	25,784	1,410	256	832	51,140
November	21,961	1,200	341	732	43,560
December	25,335	1,260	386	817	50,250
Calendar year 1949	303,131	1,720	120	830	601,200
January	32,310	1,640	269	1,045	64,090
February	31,273	1,600	610	1,117	62,030
March	28,863	1,340	535	931	57,250
April	56,732	3,410	565	1,891	112,500
May	55,330	2,230	1,100	1,785	109,700
June	57,100	2,450	1,400	1,903	113,300
July	49,420	2,070	1,390	1,594	98,020
August	46,170	1,670	1,380	1,489	91,580
September	47,400	1,890	970	1,580	94,020
Water year 1949-50	477,678	3,410	256	1,309	947,400

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

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 1950.

Average discharge.--38 years, 226 second-feet.

Extremes.--Maximum daily discharge during year, 727 second-feet June 3; no flow Mar. 1 to May 14.
1912-50: Maximum daily discharge, 729 second-feet May 19, 1946; no flow during periods in every year except 1914.

Remarks.--Records good except those for period of no gage-height record, which are fair. 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 four discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	72	47		(*)			0	705	689	491	606
2	268	72	47					0	717	697	514	597
3	267	72	47					0	727	693	514	597
4	249	71	47					0	711	695	518	595
5	236	70	47	(*)				0	711	695	512	593
6	239	70	*47					0	711	695	514	593
7	188	69						0	652	675	538	593
8	158	69		all				0	625	648	551	578
9	163	69	a47					0	627	637	593	563
10	131	69						0	612	553	595	525
11	104	59						0	593	463	595	434
12	117	51	a35					0	587	470	599	426
13	129	51						0	591	485	597	429
14	a129	50						0	587	521	595	431
15	a128	48			a10			220	625	525	578	417
			a25									
16	128	48						251	635	559	576	401
17	128	48						249	644	561	597	399
18	101	48						254	640	604	616	401
19	104	48	a15					263	640	604	635	404
20	98	48						273	642	629	633	417
21	100	49						282	640	629	625	422
22	101	48						291	638	627	629	419
23	99	49						360	648	629	631	401
24	98	48		a10				384	669	627	631	292
25	85	48	a12	(*)				412	665	629	631	394
26	76	48						470	665	627	635	384
27	74	48						525	667	614	631	365
28	73	48			a5			587	667	534	629	347
29	73	47			-			602	679	480	629	347
30	73	47			-			642	683	482	625	146
31	73	-			-			673	-	485	606	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,260	270	73	137	8,450
November	1,682	72	47	56.1	3,340
December	861	-	-	27.8	1,710
Calendar year 1949	84,767	719	0	232	168,100
January	325	-	-	10.5	645
February	275	-	-	9.8	545
March	0	0	0	0	0
April	0	0	0	0	0
May	6,738	673	0	217	13,360
June	19,603	727	587	653	38,880
July	18,461	697	463	596	36,620
August	18,263	635	491	589	36,220
September	13,516	606	146	451	26,810
Water year 1949-50	83,984	727	0	230	166,600

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of 3 discharge measurements and notes of gate changes by Utah Power & Light Co. employee.

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 1950.

Average discharge.--33 years (1917-50), 50.9 second-feet.

Extremes.--Maximum daily discharge during year, 176 second-feet July 23, 24, 26, 27; no flow Dec. 12 to May 14, July 12-20.
1912-50: Maximum daily discharge, 182 second-feet June 28, July 1, 1932, June 27, 28, 1933; no flow for periods during each year.

Remarks.--Records good except those for periods of no gage-height record, which are fair. 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 two discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60							0	154	163	165	148
2	60							0	154	165	161	146
3	60							0	154	164	156	146
4	53							0	154	165	157	145
5	48							0	159	165	157	144
6	48		a1					0	162	165	156	144
7	48							0	151	159	156	144
8	45	a2.5						0	148	157	157	142
9	43							0	149	156	155	138
10	30							0	154	159	156	124
11	20							0	155	68	155	102
12	26							0	156	0	156	105
13	30							0	154	0	151	105
14	30							0	154	0	143	105
15	29							105	156	0	142	130
16	29							98	156	0	144	96
17	30							97	156	0	145	96
18	24							96	154	0	143	96
19	20							97	154	0	142	96
20	20							94	153	0	142	96
21	20	a2.0	0					94	156	37	141	96
22	21							101	156	143	149	93
23	20							115	159	176	154	87
24	20							106	158	176	151	87
25	20							122	160	175	151	85
26	20							137	158	176	152	81
27	20							145	154	176	152	72
28	20	a1.5						144	150	165	154	69
29	20							144	163	163	154	64
30	20							145	164	165	154	32
31	20							151	-	164	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	974	60	20	31.4	1,930
November	65.0	-	-	2.17	129
December	11	-	-	.4	22
Calendar year 1949	18,815.4	159	0	51.5	37,320
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	1,991	151	0	64.2	3,950
June	4,665	164	148	156	9,250
July	3,402	176	0	110	6,750
August	1,701	165	141	152	9,320
September	3,187	148	32	106	6,320
Water year 1949-50	18,996.0	176	0	52.0	37,670

a No gage-height record; discharge computed on basis of 1 discharge measurement, 1 field estimate, and notes of gate changes by Utah Power & Light Co. employee.

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. Datum of gage is 4,276.13 feet above mean sea level (levels by Bureau of Reclamation).

Drainage area.--6,000 square miles.

Records available.--July 1889 to September 1950.

Extremes.--Maximum discharge during year, 6,790 second-feet June 13 (gage height, 6.76 feet); minimum daily, 192 second-feet Sept. 10.
1889-1950: 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 at 12 p.m. Aug. 5, 1920.

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

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,430	1,420	1,850	503	2,300	2,660	1,770	4,490	4,520	3,080	1,010	1,180
2	1,000	1,560	2,060	1,280	a2,000	2,610	1,790	3,970	4,010	1,680	1,330	1,260
3	1,180	1,400	1,700	1,270	a1,790	2,580	1,930	3,870	4,130	2,010	a1,720	272
4	1,460	1,680	1,210	a1,490	a1,440	2,360	2,060	3,940	4,280	1,960	a1,070	634
5	1,040	1,010	947	a1,100	a1,230	2,090	2,320	4,010	4,140	2,350	1,500	1,500
6	a360	1,530	1,120	814	2,040	2,900	2,620	4,060	3,970	2,170	a1,560	1,580
7	a2,050	1,680	1,130	1,020	2,240	2,210	3,160	3,870	3,030	2,310	a1,650	1,000
8	a1,290	1,510	1,370	1,460	2,780	2,600	3,230	3,610	3,350	2,420	1,740	1,070
9	a1,590	1,540	1,350	1,980	2,830	2,570	2,470	3,590	4,120	2,470	1,490	1,020
10	1,880	1,630	1,390	1,780	2,590	2,090	2,590	3,910	4,140	2,420	1,840	192
11	a1,480	208	1,690	1,410	2,160	2,710	2,900	4,010	4,070	2,360	1,840	1,160
12	a1,130	1,550	1,580	2,130	2,120	2,090	3,040	4,100	4,080	2,500	1,490	1,640
13	755	1,500	929	2,140	2,950	2,180	2,920	3,870	3,970	2,420	945	1,970
14	2,540	1,480	1,520	2,840	2,800	2,170	3,280	3,860	2,400	2,470	1,150	1,980
15	1,640	1,620	1,320	765	2,410	2,150	3,360	3,940	2,820	2,810	1,460	1,680
16	681	1,010	1,380	2,200	2,490	2,180	3,240	4,120	3,390	2,550	1,520	1,870
17	1,310	1,140	1,610	2,200	2,690	2,140	3,230	4,010	2,730	2,140	1,340	1,960
18	2,380	1,380	775	1,690	2,750	1,590	3,420	4,080	2,620	1,520	1,510	2,130
19	2,330	1,670	1,540	1,740	2,800	1,880	4,140	4,910	2,850	1,170	1,470	1,860
20	2,310	555	1,860	2,200	2,260	2,160	5,280	5,440	3,040	1,360	407	2,020
21	1,410	1,720	1,920	2,710	2,240	2,090	5,540	5,390	3,230	2,000	1,520	1,910
22	1,930	1,740	2,000	2,950	2,170	1,930	5,700	5,110	3,310	1,680	1,230	1,640
23	2,040	1,880	1,420	3,300	2,100	2,070	5,200	4,720	3,140	804	1,420	1,400
24	2,390	1,460	1,700	3,590	2,640	2,320	5,200	4,620	3,110	1,100	1,280	2,120
25	1,450	1,380	1,220	3,560	2,420	2,260	4,820	4,900	2,920	1,230	1,130	1,920
26	1,690	1,700	1,300	3,470	2,920	2,310	4,560	5,280	2,830	1,510	1,160	2,100
27	2,000	976	1,720	3,290	2,080	2,530	5,230	5,200	3,100	1,380	321	1,870
28	1,550	2,030	1,660	3,020	2,490	2,020	4,620	4,760	3,110	1,130	1,580	2,250
29	1,090	823	1,660	2,060	-	2,020	4,600	4,920	3,520	1,480	1,580	2,000
30	1,100	846	1,590	1,990	-	1,930	4,670	4,900	3,140	358	1,130	2,510
31	1,500	-	1,110	2,190	-	2,150	-	4,730	-	1,100	1,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	47,986	2,540	360	1,548	95,180
November	41,606	2,030	206	1,387	82,520
December	45,631	2,060	775	1,472	90,510
Calendar year 1949	529,233	3,830	23	1,450	1,050,000
January	64,102	3,590	503	2,068	127,100
February	65,730	2,950	1,230	2,348	130,400
March	69,550	2,900	1,590	2,244	138,000
April	108,890	5,700	1,770	3,630	216,000
May	136,190	5,440	3,590	4,393	270,100
June	103,070	4,520	2,400	3,436	204,400
July	57,942	3,080	358	1,869	114,900
August	41,953	1,840	321	1,353	83,210
September	47,698	2,510	192	1,590	94,610
Water year 1949-50	830,348	5,700	192	2,275	1,647,000

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

Bear River near Corinne, Utah

Location.--Water-stage recorder, lat. 41°34'30", long. 112°06'00", in SW¼NW¼ sec. 29, T. 10 N., R. 2 W., 1.1 miles downstream from Salt Creek, 2.0 miles northeast of Corinne, and 2.6 miles downstream from Malad River.

Records available.--October 1949 to September 1950.

Extremes.--Maximum discharge during year, 5,920 second-feet Apr. 23 (gage height, 13.36 feet); minimum, 506 second-feet Sept. 5.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. A few small pumping diversions above and below station. Records are equivalent to flow at Bear River Bird Refuge diversion works.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,500	1,620	1,040	1,260	2,500	3,030	2,380	4,930	4,940	3,250	1,170	1,580
2	1,360	1,640	1,960	650	2,200	2,960	2,080	4,690	4,670	2,710	1,170	1,330
3	1,200	1,740	2,100	1,410	1,990	2,990	2,120	4,300	4,290	1,940	1,440	1,290
4	1,290	1,630	1,840	1,420	1,640	2,920	2,190	4,230	4,280	2,060	1,320	601
5	1,630	1,720	1,430	1,640	1,430	2,830	2,340	4,250	4,320	2,300	1,230	766
6	1,100	1,340	1,170	1,250	2,240	3,180	2,620	4,370	4,250	2,350	1,560	1,640
7	690	1,700	1,270	960	2,440	2,770	3,190	4,300	3,700	2,450	1,700	1,640
8	1,960	1,880	1,270	1,170	2,990	2,990	3,380	4,120	3,460	2,560	1,510	1,190
9	1,590	1,790	1,440	1,610	3,080	2,950	3,200	3,960	4,080	2,670	1,740	1,190
10	1,620	1,850	1,450	2,110	2,840	2,530	2,720	4,030	4,320	2,660	1,680	1,150
11	1,970	1,770	1,620	1,930	2,410	2,960	3,080	4,240	4,330	2,830	1,880	699
12	1,690	785	1,840	1,560	2,370	a2,800	3,270	4,340	4,320	2,430	1,930	1,150
13	1,320	1,580	1,730	2,280	3,200	2,160	3,310	4,250	4,100	2,660	1,640	1,670
14	1,040	1,810	1,080	2,290	3,070	2,470	3,430	4,090	3,850	2,670	1,160	2,110
15	2,260	1,740	1,670	3,000	2,680	2,460	3,580	4,170	3,220	2,430	1,280	2,160
16	1,810	1,710	1,470	920	2,760	2,520	3,570	4,290	3,370	2,800	1,520	1,820
17	1,090	1,320	1,530	2,350	2,970	2,540	3,530	4,430	3,210	3,030	1,650	1,980
18	1,750	1,350	1,760	2,350	3,030	2,220	3,630	4,290	2,970	2,060	1,470	2,230
19	2,530	1,770	930	1,840	3,080	2,130	3,750	4,580	2,880	1,680	1,550	2,200
20	2,650	1,630	1,690	1,890	2,550	2,320	4,790	5,360	3,190	1,320	1,560	2,080
21	2,140	866	2,000	2,360	2,530	2,410	5,510	5,640	3,320	1,650	841	2,170
22	1,760	1,820	2,070	2,880	2,460	2,350	5,720	5,680	3,460	1,950	1,450	2,070
23	2,340	1,900	2,150	3,150	2,400	2,260	5,820	5,350	3,390	1,730	1,420	1,770
24	2,350	2,290	1,570	3,550	2,940	2,420	5,490	4,960	3,360	1,080	1,460	1,640
25	2,300	1,610	1,850	3,910	2,720	2,660	5,430	4,980	3,210	1,210	1,370	2,220
26	1,760	1,690	1,370	3,820	3,200	2,640	4,960	5,220	3,120	1,420	1,250	2,120
27	1,870	1,650	1,450	3,590	2,350	2,690	5,110	5,450	3,210	1,680	1,240	2,200
28	2,040	1,360	1,870	3,350	2,580	2,800	5,210	5,520	3,300	1,510	680	2,100
29	1,750	1,980	1,810	2,310	-	2,460	4,930	5,350	3,550	1,360	1,480	2,420
30	1,380	1,010	1,810	2,200	-	2,400	4,860	5,180	3,470	1,510	1,590	2,240
31	1,360	-	1,740	2,390	-	2,390	-	5,090	-	755	1,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	53,100	2,650	690	1,713	105,300
November	48,551	2,290	785	1,618	96,300
December	49,980	2,150	930	1,612	99,130
Calendar year	-	-	-	-	-
January	67,400	3,910	650	2,174	133,700
February	72,650	3,200	1,430	2,595	144,100
March	81,210	3,180	2,130	2,620	161,100
April	115,200	5,820	2,080	3,840	228,500
May	145,640	5,680	3,960	4,698	228,900
June	111,140	4,940	2,880	3,705	220,400
July	64,715	3,250	755	2,088	128,400
August	44,241	1,930	680	1,427	87,750
September	51,426	2,420	601	1,714	102,000
Water year 1949-50	905,253	5,820	601	2,480	1,798,000

a No gage-height record; discharge computed on basis of records for station near Collinston.
Note.--Stage-discharge relation affected by ice Dec. 12 to Feb. 27 (no gage-height record at times).

Mill Creek at Utah-Wyoming State line

Location.--Water-stage recorder, lat. 40°59'30", long. 110°50'30", in W½ sec. 17, T. 3 N., R. 10 E., in Utah, 2,000 feet upstream from State line and 19½ miles southeast of Evanston, Wyo.

Drainage area.--59 square miles.

Records available.--October 1949 to September 1950. July 1942 to September 1948 at site 1½ miles downstream, published as Mill Creek near Evanston, Wyo., records not equivalent at times during irrigation season because of diversions between sites.

Extremes.--Maximum discharge during year, 514 second-feet May 30 (gage height, 3.87 feet); minimum, 2.5 second-feet Mar. 16, but may have been less during periods of ice effect or no gage-height record.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	8.4	7.8	b7		8.1	10	34	351	67	17	7.3
2	8.7	8.1	7.0	b7		9.4	12	37	309	62	16	7.0
3	7.6	8.1	7.6			8.7	10	35	200	55	14	7.0
4	7.0	8.4	5.7			8.4	10	29	190	51	14	7.3
5	7.0	8.4	7.0			7.8	9.8	26	252	48	14	7.0
				b6								
6	8.7	8.4	7.0			9.8	12	24	329	44	13	7.3
7	11	8.1	7.3		b7	9.8	14	22	319	46	12	7.6
8	10	8.7	7.6			9.8	17	20	193	58	12	7.6
9	10	8.7	7.6			9.0	14	20	181	50	11	8.4
10	10	9.0	6.1			9.0	17	22	224	42	10	9.8
11	9.0	8.7	6.4	a6		9.4	14	36	273	42	10	19
12	12	8.7	6.4			8.7	15	56	285	35	11	18
13	18	11	6.4			b8.0	19	95	263	31	11	15
14	15	12	6.7		b6.5	b8.0	24	140	263	29	11	14
15	12	9.4	7.8		b6.5	b8.5	21	184	252	26	11	15
16	12	8.7	8.7	a7		8.7	19	231	246	25	10	13
17	12	9.0	8.1	a8	b7	9.0	24	261	229	25	9.8	12
18	14	9.0	7.0	*8.4		9.0	30	220	200	26	9.4	10
19	17	8.7		7.6		10	33	176	181	23	9.4	11
20	13	8.4		7.6	b8	9.0	38	195	169	24	9.0	19
21	12	9.0		7.0	b8.5	9.0	55	246	166	20	9.0	21
22	10	9.4		6.7	b9	9.4	83	311	159	19	8.4	18
23	12	10			b10	10	107	321	145	19	8.4	18
24	11	10			11	10	107	339	134	18	8.1	18
25	11	8.4	b7		11	9.0	89	285	118	17	7.8	15
26	11	8.4		b6	11	9.4	74	216	96	16	7.6	13
27	10	8.7			11	10	66	259	91	20	7.8	12
28	9.0	9.0			*8.7	9.8	50	275	85	25	7.6	11
29	10	*8.4			-	10	38	254	78	34	7.6	11
30	8.7	7.6			-	*11	33	327	73	25	7.3	11
31	8.4	-			-	10	-	362	-	19	7.3	11

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	336.9	18	7.0	10.9	668
November	266.8	12	7.6	8.89	529
December	219.2	-	-	7.07	435
Calendar year	-	-	-	-	-
January	198.3	-	-	6.40	393
February	207.2	-	-	7.40	411
March	285.7	11	7.8	9.22	567
April	1,064.8	107	9.8	35.5	2,110
May	5,058	362	20	163	10,030
June	6,054	351	73	202	12,010
July	1,041	67	16	33.6	2,060
August	321.5	17	7.3	10.4	638
September	370.3	21	7.0	12.3	734
Water year 1949-50	15,423.7	362	-	42.3	30,580

Peak discharge (base, 250 sec.-ft.).--May 30 (10:45 p.m.) 514 sec.-ft.

* 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.

Sulphur Creek near Evanston, Wyo.

Location.--Water-stage recorder, lat. 41°10", long. 110°52', in SE¼ sec. 29, T. 14 N., R. 119 W., 4.8 miles upstream from mouth and 9 miles southeast of Evanston.

Drainage area.--80.5 square miles.

Records available.--April 1942 to September 1950.

Extremes.--Maximum discharge during year, 748 second-feet Apr. 17 (gage height, 4.41 feet); minimum, 0.9 second-foot Sept. 6, but may have been less during periods of ice effect or no gage-height record (during winter months).
1942-50: Maximum discharge, 1,070 second-feet Apr. 21, 1948 (gage height, 4.01 feet, datum then in use); no flow Sept. 10, 1949.

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

Revisions (water years).--W 1040: 1943, 1944.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	3.5	2.6	b3			b20	72	132	18	12	1.0
2	1.2	3.5	2.6				b25	103	131	17	9.2	1.0
3	1.1	3.3	2.3				b40	119	115	19	7.8	1.0
4	1.4	3.3	2.4				b60	121	89	19	6.6	1.0
5	1.4	3.5	2.4				b60	98	79	18	6.6	1.0
6	1.7	3.6	2.4			a15	*55	110	83	19	6.0	1.0
7	2.2	4.0	2.4				98	92	89	30	5.6	1.0
8	2.3	4.8					152	96	84	40	4.6	1.1
9	1.8	5.2			a3		132	124	57	36	4.2	1.1
10	1.8	5.8					117	128	45	43	4.0	1.3
11	1.9	5.6				(*)	136	118	50	79	4.2	3.5
12	2.3	4.8				b10	178	88	46	43	4.4	2.7
13	4.8	6.0		(*)			276	94	43	29	4.2	2.2
14	4.0	6.6					290	118	42	19	3.6	2.3
15	2.9	6.9				a10	208	147	40	13	3.1	2.7
16	2.7	6.4					242	165	34	9.5	3.3	2.4
17	2.6	5.8		a3			406	193	26	9.5	2.9	2.4
18	3.5	5.4			a5		397	206	23	11	2.7	2.0
19	4.8	5.0	b3				262	145	23	9.5	2.4	1.5
20	3.3	4.4				b15	273	131	23	7.8	2.6	2.9
21	3.1	4.0					284	138	20	8.6	2.7	2.3
22	3.6	3.8					247	193	19	8.6	2.4	2.2
23	4.6	3.6			a10	a15	211	215	23	8.6	1.9	2.0
24	4.6	4.8					145	242	16	11	1.7	1.9
25	4.6	4.4					101	247	28	8.9	1.5	1.8
26	4.4	3.8					85	148	24	7.8	1.5	1.7
27	4.2	3.6			a15	a10	88	154	20	12	1.5	1.3
28	3.6	3.6					115	166	19	25	1.5	1.2
29	3.6	*3.3			-		111	145	23	50	1.3	1.2
30	3.8	2.9			-	*b10	89	140	22	35	1.2	1.3
31	3.3	-			-	b12	-	161	-	20	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	92.3	4.8	1.1	2.98	183
November	135.2	6.9	2.9	4.51	268
December	89.1	-	-	2.87	177
Calendar year 1949	7,591.0	500	-	20.8	15,060
January	93	-	-	3	184
February	165	-	-	5.9	327
March	402	-	-	13.0	797
April	4,903	406	20	163	9,720
May	4,417	247	72	142	8,760
June	1,468	132	16	48.9	2,910
July	684.8	79	7.8	22.1	1,360
August	118.2	12	1.0	3.81	234
September	52.0	3.5	1.0	1.73	103
Water year 1949-50	12,619.6	406	-	34.6	25,020

Peak discharge (base, 300 sec.-ft.).--Apr. 17 (9 p.m.) 748 sec.-ft.; May 25 (6:30 a.m.) 364 sec.-ft.

* 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 stations on nearby streams.

b Stage-discharge relation affected by ice.

Yellow Creek near Evanston, Wyo.

Location.--Water-stage recorder, lat. 41°09', long. 111°03', in SW¼ sec. 21, T. 5 N., (revised), R. 8 E., in Utah, 600 feet downstream from Sage Creek, 1½ miles upstream from Coyote Creek, and 9¾ miles southwest of Evanston. Prior to September 1945, at site 500 feet upstream at different datum.

Drainage area.--80 square miles.

Records available.--February 1943 to September 1945, October 1949 to September 1950.

Extremes.--Maximum discharge during year, 240 second-feet Apr. 23 (gage height, 6.49 feet); no flow for many days in October and September.
1943-45, 1949-50: Maximum discharge, 303 second-feet Apr. 20, 1945 (gage height, 7.52 feet, site and datum then in use); no flow at times.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4	0.4			(*)	b3.0	72	109	14	2.6	0.1
2	0	.4	.4				b10	93	101	14	2.1	0
3	0	.4	.4				b30	106	104	13	1.9	0
4	0	.4	.4				b90	91	82	12	1.5	0
5	0	.4	.4				b80	74	74	11	1.5	0
6	0	.4	.4	b.5			b50	82	72	9.5	1.3	0
7	0	.4	.5				b70	72	75	9.5	1.0	0
8	0	.5	.5		a.5	b1.5	b150	63	86	9.9	1.0	0
9	0	.7	.5				b100	60	72	9.1	.7	.1
10	0	1.3					b50	65	62	9.5	.5	.2
11	0	1.4					b45	84	58	12	.8	.7
12	0	.9					b48	97	53	11	1.0	1.5
13	0	.9					b60	118	48	8.8	.9	.7
14	0	1.2					b120	136	45	7.6	.8	.5
15	0	1.2					b80	166	41	6.5	.6	.8
16	0	.9					94	186	38	5.8	.5	.9
17	0	.8				b2.0	108	201	35	5.6	.5	.9
18	0	.8					140	213	32	5.6	.4	.8
19	0.6	.8					124	194	30	5.0	.4	.7
20	.4	.7					132	160	28	4.6	.4	1.8
21	.3	.6	b.5	a.5	a1.0		179	162	26	4.0	.4	1.8
22	.3	.5				a2.0	212	176	24	3.8	.3	2.3
23	.4	.5					222	188	22	3.3	.3	1.8
24	.4	.7					190	182	19	2.8	.2	1.2
25	.4	1.0					113	187	19	2.6	.2	1.0
26	.4	.8					105	148	19	2.3	.2	.9
27	.4	.8			a1.5		115	133	18	3.1	.2	.9
28	.4	.8				a2.5	127	137	17	3.0	.2	.8
29	.4	*.7			-		94	125	16	4.8	.1	.8
30	.4	.5			-		79	114	15	4.6	.1	1.3
31	.4	-			-	b2.5	-	120	-	3.3	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5.2	0.6	0	0.17	10
November	21.8	1.4	.4	.73	43
December	14.9	-	-	.48	30
Calendar year	-	-	-	-	-
January	15.5	-	-	.5	31
February	22.0	-	-	.79	44
March	57.5	-	-	1.85	114
April	3,020	222	3.0	101	5,990
May	4,005	213	60	129	7,940
June	1,440	109	15	48.0	2,860
July	221.6	14	2.3	7.15	440
August	22.7	2.6	.1	.73	45
September	22.5	2.3	0	.75	45
Water year 1949-50	8,868.7	222	0	24.3	17,590

Peak discharge (base, 100 sec.-ft.).--Apr. 23 (4 to 5 a.m.) 240 sec.-ft.; May 18 (4:30 p.m.) 234 sec.-ft.

* 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.

Woodruff Creek near Woodruff, Utah

Location.--Water-stage recorder, lat. 41°29', long. 111°16', in SE¼SE¼ sec. 28, T. 9 N., R. 6 E., 1¼ miles upstream from Birch Creek and 6 miles southwest of Woodruff.

Drainage area.--65 square miles.

Records available.--October 1949 to September 1950 in reports of Geological Survey. October 1937 to September 1943 (unpublished) at site 1½ miles upstream, available in files at Logan project office, Geological Survey, under the name South Fork Woodruff Creek near Woodruff.

Extremes.--Maximum discharge during year, 528 second-feet May 25 (gage height, 5.72 feet); minimum, 4.2 second-feet Feb. 12 (gage height, 1.16 feet).

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	12	11	b10	b11	a12	22	77	410	63	27	14
2	11	12	12	11	b11	*17	29	75	394	60	26	14
3	10	11	12	a10	b11	19	29	76	283	58	25	14
4	10	11	12	a10	b11	19	26	68	228	56	25	14
5	10	10	13	a9	b11	22	24	66	244	54	25	14
6	12	10	12	a9	12	24	25	64	290	52	24	14
7	14	10	12	a9	12	25	35	62	303	52	24	14
8	14	12	11	a9	b11	26	51	62	222	49	23	14
9	13	12	11	a10	b11	20	50	60	174	47	22	15
10	13	13	11	a9	b11	19	40	59	154	45	22	16
11	12	12	b11	a9	12	18	35	64	151	44	22	22
12	14	11	b11	a9	12	19	38	73	189	40	22	18
13	23	10	b11	a9	b12	24	50	90	197	38	21	15
14	18	12	b11	a9	12	20	62	122	186	36	20	16
15	14	12	b11	a10	12	16	54	175	172	36	20	16
16	13	12	b11	a10	12	15	65	236	162	35	19	16
17	12	12	b11	a11	12	17	84	296	153	34	19	15
18	16	12	12	a12	b12	20	96	336	140	33	19	15
19	16	12	11	a12	b12	19	87	327	130	33	18	14
20	15	12	b11	*12	b12	18	96	294	118	31	18	15
21	14	11	b11	12	b12	18	121	312	114	30	18	16
22	14	11	12	13	b12	18	148	370	109	30	17	16
23	14	12	10	15	b12	18	162	445	104	29	17	15
24	14	14	11	b15	a12	18	143	484	97	28	17	15
25	14	13	b11	b14	a12	18	123	496	88	28	17	14
26	13	12	12	a14	a12	17	111	379	80	27	16	14
27	13	12	11	b14	a12	16	111	368	76	29	17	12
28	12	*12	10	14	a12	15	106	406	72	30	16	12
29	12	12	b10	b13	-	18	89	410	69	38	16	12
30	12	12	b10	b12	-	16	79	394	66	30	15	14
31	12	-	b10	b11	-	19	-	464	-	27	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	416	23	10	13.4	825
November	351	14	10	11.7	696
December	346	13	10	11.2	686
Calendar year	-	-	-	-	-
January	346	15	9	11.2	686
February	328	12	11	11.7	651
March	580	26	12	18.7	1,150
April	2,191	162	22	73.0	4,350
May	7,210	496	59	233	14,300
June	5,175	410	66	172	10,260
July	1,222	63	27	39.4	2,420
August	622	27	15	20.1	1,230
September	445	22	12	14.8	883
Water year 1949-50	19,232	496	9	52.7	38,140

* 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.

Birch Creek near Woodruff, Utah

Location.--Water-stage recorder, lat. 41°30'00", long. 111°17'30", in NE¼ sec. 20, T. 9 N., R. 6 E., a quarter of a mile downstream from tributary, 2 miles upstream from mouth, and 7 miles southwest of Woodruff.

Drainage area.--17 square miles.

Records available.--October 1949 to September 1950.

Extremes.--Maximum discharge during year, 172 second-feet May 22 (gage height, 3.73 feet); minimum, 0.3 second-foot Oct. 1.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	1.5	1.4	b1.4		a3.0	6.6	38	78	12	4.1	6.0
2	.4	1.5	1.4	b1.6		*a2.8	12	39	74	11	4.1	1.2
3	.4	1.5	1.4	b1.5		2.6	11	37	66	11	3.8	1.0
4	.4	1.5	1.5	b1.4		3.0	8.6	34	60	10	3.6	.9
5	.4	1.4	1.4	b1.3	b1.4	3.4	7.9	32	55	9.6	3.6	.9
6	.5	1.4	1.4	b1.2		3.6	8.6	30	52	9.3	3.4	.9
7	.8	1.4	1.4	b1.2		3.2	13	30	52	9.3	3.2	.9
8	.9	1.5	1.4	a1.2		3.0	17	30	50	8.8	3.4	.7
9	1.0	1.5	1.4	a1.2		3.0	15	28	45	8.2	3.8	.8
10	1.0	1.7	1.4	a1.2		2.9	12	28	41	7.9	3.8	.8
11	1.0	1.6	b1.4	a1.2		2.9	11	28	38	7.9	3.8	1.4
12	1.3	1.5	b1.4	a1.3		2.6	13	30	36	7.0	3.8	1.4
13	2.4	1.4	1.5	*a1.4	b1.5	3.0	16	36	36	6.8	3.8	1.0
14	1.4	1.5	b1.4	b1.5		2.9	17	45	33	6.4	3.6	1.2
15	1.3	1.5	b1.4	b1.5		2.7	16	58	33	6.0	3.2	1.2
16	1.2	1.5	b1.4	1.6		2.7	20	79	30	5.5	3.2	1.2
17	1.2	1.4	b1.4	1.7		3.4	26	109	28	5.1	3.0	1.2
18	1.5	1.4	1.6	4.1		3.6	28	136	27	4.9	3.0	2.2
19	1.9	1.6	1.5	2.7	b2.0	3.2	26	129	26	4.7	3.4	2.9
20	1.6	1.7	1.4	2.0		3.2	28	135	25	4.3	4.1	3.0
21	1.5	1.5	1.5	2.0		3.2	33	126	24	4.0	4.0	3.2
22	1.5	1.4	1.5	2.2		3.4	40	131	24	3.8	3.8	2.9
23	1.6	1.5	1.4	2.6	a2.5	3.6	44	139	22	4.0	3.8	1.4
24	1.5	1.6	1.5	b2.5		3.8	42	139	21	3.8	3.8	1.4
25	1.5	1.4	b1.4	b2.0		4.0	38	129	20	3.4	3.8	1.2
26	1.5	1.4	b1.4	b1.8		3.8	38	108	18	3.4	3.8	1.0
27	1.5	1.4	b1.5	b1.8	a3.0	3.8	40	97	16	3.8	6.0	1.0
28	1.5	*1.6	b1.4	b1.8		3.8	43	94	15	4.9	7.7	1.2
29	1.5	1.6	b1.4	b1.8	-	3.6	39	88	14	7.9	7.7	1.2
30	1.5	1.4	b1.4	b1.6	-	3.6	38	86	13	5.5	7.5	1.2
31	1.5	-	b1.4	b1.5	-	4.9	-	82	-	4.5	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	37.6	2.4	0.4	1.21	75
November	44.8	1.7	1.4	1.49	89
December	44.3	1.6	1.4	1.43	88
Calendar year	-	-	-	-	-
January	53.8	4.1	1.2	1.74	107
February	52.5	-	-	1.88	104
March	102.2	4.9	2.6	3.30	203
April	707.7	44	6.6	23.6	1,400
May	2,330	139	28	75.2	4,620
June	1,072	78	13	35.7	2,130
July	204.7	12	3.4	6.60	406
August	130.8	7.7	3.0	4.22	259
September	46.5	6.0	.7	1.55	92
Water year 1949-50	4,826.9	139	2.4	13.2	9,570

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of 2 discharge measurements, weather records, and records for stations on nearby streams.
b Stage-discharge relation affected by ice.

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Big Creek near Randolph, Utah

Location.--Water-stage recorder, lat. 41°37', long. 111°15', in SW¼ sec. 10, T. 10 N., R. 6 E., 3½ miles downstream from main forks and 4¾ miles southwest of Randolph.

Drainage area.--52.2 square miles.

Records available.--October 1949 to September 1950. March 1939 to September 1944 at site a quarter of a mile downstream.

Extremes.--Maximum discharge during year, 146 second-feet May 18 (gage height, 2.46 feet); minimum, 9.8 second-feet Mar. 29, but may have been less during period of no gage-height record.

1939-44, 1949-50: Maximum discharge, that of May 18, 1950; minimum daily, 0.2 second-foot July 11, Aug. 7, 1940.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. No diversions above station. Two small intermittent diversions for irrigation between present and former site a quarter of a mile downstream.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	14				a10	17	52	90	45	35	29
2	16	14				a12	22	52	89	45	34	29
3	16	14				a13	22	52	80	45	34	29
4	16	13				a13	19	51	72	44	34	29
5	16	13				a15	17	48	71	44	34	29
6	16	13				a16	a18	47	72	44	34	28
7	17	13				a17	a25	45	74	44	33	29
8	16	14				a18	a35	44	68	44	33	29
9	16	14				*a13	a33	42	62	43	33	29
10	16	14				11	a27	41	60	43	33	29
11	16	14				a10	20	41	59	43	33	30
12	16	14				a11	22	45	60	42	33	29
13	17	16				a15	24	52	59	41	33	29
14	15	13				a12	28	66	57	41	33	28
15	14	13				10	27	80	57	40	32	28
16	14	13	a11	a11	a10	a11	30	96	57	40	32	28
17	15	13				a12	35	120	56	39	32	28
18	16	a13				a14	39	140	55	39	31	28
19	17	13				13	38	137	54	39	30	28
20	16	a13				12	39	130	52	38	31	28
21	15	b12				12	46	126	52	38	30	28
22	16	b12				12	52	129	52	37	30	28
23	15	b13				13	60	133	51	37	30	29
24	14	14				11	64	136	51	36	30	29
25	14	13				12	60	130	50	36	30	27
26	14	12		(*)		11	59	115	48	36	30	27
27	14	12				11	80	107	47	36	30	27
28	14	*13				12	63	106	47	39	30	27
29	14	12			-	13	58	101	47	40	30	27
30	14	12			-	13	54	96	46	36	29	27
31	14	-			-	14	-	98	-	36	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	476	17	14	15.4	944
November	396	16	12	13.2	785
December	341	-	-	11	676
Calendar year	-	-	-	-	-
January	341	-	-	11	676
February	280	-	-	10	555
March	392	18	10	12.6	778
April	1,113	64	17	37.1	2,210
May	2,658	140	41	85.7	5,270
June	1,795	90	46	59.8	3,560
July	1,250	45	36	40.3	2,480
August	985	35	29	31.8	1,950
September	849	30	27	28.3	1,680
Water year 1949-50	10,876	140	-	29.8	21,560

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of 2 discharge measurements, weather records, and records for stations on nearby streams.
b Stage-discharge relation affected by ice.

Randolph Creek near Randolph, Utah

Location.--Water stage recorder, lat. 41°40'30", long. 111°14'00", in SW¼ sec. 23, T. 11 N., R. 6 E., a quarter of a mile downstream from confluence of Old Canyon and New Canyon, half a mile upstream from Randolph Dam, and 2¾ miles west of Randolph.

Drainage area.--30.3 square miles.

Records available.--October 1949 to September 1950.

Extremes.--Maximum discharge during year, 22 second-feet Apr. 1 (gage height, 1.35 feet); minimum, 0.7 second-foot Aug. 26.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	3.8	3.9	4.8	b3.7	5.3	11	5.1	7.2	6.5	3.1	3.1
2	2.9	3.8	3.9	4.8	b3.6	5.3	12	5.1	8.4	7.5	2.9	4.8
3	2.8	3.8	3.9	4.4	b3.5	a5.0	7.2	4.4	9.1	7.5	2.9	5.1
4	2.6	3.9	4.3	b4.0	3.8	a5.0	6.4	4.3	8.4	7.2	2.8	5.3
5	2.9	3.9	4.8	b4.0	3.8	a5.0	6.4	3.4	8.4	4.6	2.5	5.5
6	2.5	3.9	4.8	b4.0	3.9	a5.0	7.8	3.6	8.1	3.8	2.6	5.5
7	3.1	3.9	4.8	4.4	4.1	a5.2	9.1	3.4	8.1	3.9	2.6	5.8
8	3.2	3.9	4.8	4.4	3.9	a5.5	8.1	3.1	8.1	3.6	2.4	5.8
9	3.4	3.9	4.8	4.4	4.1	*5.8	6.7	2.9	8.1	4.8	2.6	6.0
10	3.9	3.9	4.8	4.3	4.3	5.8	6.4	2.6	7.8	3.4	3.9	6.2
11	3.9	3.8	4.6	4.3	4.1	5.5	6.4	2.5	7.8	5.3	4.4	5.8
12	2.9	3.9	4.8	*4.3	4.1	5.3	6.4	2.8	7.5	3.8	6.4	4.3
13	3.9	3.9	4.8	b4.3	3.9	5.3	6.4	2.9	8.1	3.6	6.7	4.3
14	3.8	3.9	4.8	b4.3	3.9	5.5	6.0	3.1	7.8	3.6	6.9	4.4
15	3.8	3.9	5.1	b4.0	4.1	5.5	5.8	3.4	7.8	3.6	6.9	4.3
16	3.9	3.9	5.1	3.8	4.4	5.8	5.3	3.6	7.5	3.4	6.0	4.4
17	3.8	3.9	5.1	b5.0	4.4	8.4	5.3	3.6	4.8	3.4	4.1	4.3
18	3.9	3.8	5.1	b9.0	4.6	7.2	5.3	3.4	4.6	3.4	3.8	4.1
19	3.9	3.1	4.8	5.5	4.4	6.7	5.5	3.1	3.9	3.4	3.8	4.1
20	3.8	2.9	4.8	4.6	4.6	6.7	5.5	3.2	3.8	3.4	3.6	3.9
21	3.8	3.9	5.1	4.4	4.6	6.4	5.3	3.2	3.8	4.3	3.4	4.8
22	3.6	3.9	5.1	4.6	4.6	6.4	4.8	2.7	3.6	6.2	3.1	5.8
23	3.4	3.9	5.1	6.0	4.8	6.2	4.6	2.4	3.9	6.4	3.1	5.8
24	3.4	4.1	b5.1	5.1	5.1	6.0	4.6	2.4	4.6	4.1	3.1	6.0
25	3.4	4.1	b5.1	4.4	5.3	6.2	4.6	2.6	3.9	3.8	2.8	6.0
26	3.6	3.9	b5.1	3.9	5.5	6.0	4.3	3.6	4.4	3.8	1.6	6.0
27	3.8	3.9	5.1	4.4	5.8	5.8	3.6	3.4	4.0	3.9	2.1	5.8
28	3.8	*3.9	4.8	b4.4	5.5	5.8	4.1	3.2	4.0	6.4	3.1	5.5
29	3.8	3.9	4.8	b4.2	-	5.5	5.1	2.9	4.0	6.4	3.2	4.8
30	3.6	3.9	4.8	b4.0	-	6.2	5.1	3.2	5.0	7.2	2.5	5.1
31	3.6	-	4.8	b3.8	-	7.5	-	7.2	-	3.9	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	108.3	3.9	2.5	3.49	215
November	115.1	4.1	2.9	3.84	228
December	148.7	5.1	3.9	4.80	295
Calendar year	-	-	-	-	-
January	141.8	9.0	3.8	4.57	281
February	122.4	5.8	3.5	4.37	243
March	182.8	8.4	5.0	5.90	363
April	185.1	12	3.6	6.17	367
May	106.2	7.2	2.4	3.43	211
June	186.5	9.1	3.6	6.22	370
July	146.1	7.5	3.4	4.71	290
August	111.4	6.9	1.6	3.59	221
September	152.6	6.2	3.1	5.09	303
Water year 1949-50	1,707.0	12	1.6	4.68	3,390

* 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.

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.

Drainage area.--246 square miles.

Records available.--April 1943 to September 1950.

Extremes.--Maximum discharge during year, 460 second-feet Apr. 2 (gage height, 5.04 feet); minimum, 1.8 second-feet Nov. 22, but may have been less during period of ice effect or no gage-height record.
1943-50: Maximum discharge, 649 second-feet Mar. 18, 1947 (gage height, 6.08 feet); minimum, 1.0 aecond-foot Dec. 17, 1946, Aug. 22, 1949, but may have been less in 1946 during period of ice effect or no gage-height record.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	8.0	10	a8		a25	243	76	113	35	24	12
2	6.6	7.6	6.9	a8		a25	391	80	112	34	20	12
3	6.6	7.2	8.3				238	90	140	32	20	11
4	6.2	7.2	6.6				122	116	138	32	20	10
5	6.6	7.2	8.0				84	99	112	32	19	9.4
6	6.6	8.0				b25	77	96	100	32	17	9.0
7	8.0	7.6					163	98	95	32	15	8.3
8	9.4	8.3		a7	a7		283	94	113	40	14	9.0
9	8.6	8.3					201	98	104	33	14	10
10	9.4	8.6					81	86	91	30	14	10
11	8.3	9.0					69	82	84	34	16	12
12	8.6	10					70	88	79	30	17	13
13	9.4	12					100	102	74	26	19	12
14	12	14					153	127	71	25	19	11
15	10	10				b17	108	145	66	23	19	12
16	8.3	8.6					143	149	64	22	19	11
17	8.0	10					187	161	62	22	17	11
18	8.6	12	b8		a9		219	213	58	21	18	12
19	9.9	11		a8			130	188	57	21	18	12
20	9.9	12					105	156	54	20	17	14
21	9.9	9.9				b25	143	152	53	19	17	16
22	9.4	8.3					145	156	54	18	16	15
23	9.4	9.0			a17		189	160	51	18	14	15
24	9.9	11					129	163	47	18	14	15
25	11	9.0					99	154	45	18	12	15
26	12	8.3		a7		b17	91	145	43	19	9.4	14
27	11	9.0			a25	b17	90	138	42	20	11	13
28	9.9	9.0				17	103	134	40	22	12	13
29	9.4	9.0			-	*17	99	133	39	72	13	14
30	9.9	*7.6			-	17	83	122	38	37	14	13
31	8.3	-			-	48	-	117	-	26	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	277.7	12	6.2	8.96	551
November	276.7	14	7.2	9.22	549
December	247.8	-	-	7.99	492
Calendar year 1949	4,904.0	93	-	13.4	9,720
January	226	-	-	7.29	448
February	310	-	-	11.1	615
March	702	-	-	22.6	1,390
April	4,338	391	69	145	8,600
May	3,918	213	76	126	7,770
June	2,239	140	38	74.6	4,440
July	863	72	18	27.8	1,710
August	501.4	24	9.4	16.2	995
September	363.7	16	8.3	12.1	721
Water year 1949-50	14,263.3	391	-	39.1	28,280

Peak discharge (base, 200 sec.-ft.).--Apr. 2 (7:45 a.m.) 460 sec.-ft.; Apr. 8 (6 to 7 a.m.) 327 sec.-ft.; Apr. 18 (11:15 a.m.) 265 sec.-ft.

* 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.

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.

Drainage area.--165 square miles.

Records available.--May 1942 to September 1950.

Extremes.--Maximum discharge during year, 1,180 second-feet June 7 (gage height, 4.45 feet); minimum, 45 second-feet Mar. 29, but may have been less during period of ice effect.

1942-50: Maximum discharge, that of June 7, 1950; minimum, 37 second-feet Mar. 11, 1948, but may have been less during period of ice effect.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	77	65			57	59	253	1,110	759	266	141
2	93	77	69			69	65	243	1,120	754	256	137
3	88	75	65			*59	59	237	1,010	727	253	137
4	86	75	b65			59	58	225	903	689	253	135
5	88	78	b65			59	58	219	914	657	241	132
6	90	71	b65		b54	59	62	219	1,020	632	235	132
7	92	71	b65			58	74	219	1,150	611	230	130
8	90	74	b65	b59		59	86	219	1,070	581	221	132
9	90	74				59	92	219	931	557	215	139
10	90	75				59	86	216	847	547	210	141
11	86	74				59	88	231	798	534	210	137
12	83	69				62	101	288	864	502	207	135
13	82	69				65	121	407	914	480	204	130
14	82	71				58	150	553	953	459	199	130
15	82	72				58	158	640	975	442	194	137
16	78	69			b58	58	188	732	1,010	422	188	128
17	92	69				58	243	824	1,040	406	184	126
18	108	66				57	282	1,010	1,000	391	181	124
19	95	65				57	259	830	970	376	176	120
20	88	64	b64	b64		56	282	743	925	356	174	120
21	83	61			74	56	343	789	914	342	171	118
22	82	66			80	56	395	890	931	332	168	118
23	82	66			64	57	382	959	942	321	164	118
24	82	72			62	57	324	992	936	314	164	118
25	82	69			59	57	302	1,020	875	301	159	116
26	82	66			58	56	302	942	814	298	157	114
27	82	66		(*)	59	55	327	959	786	294	154	114
28	80	71		a54	64	54	302	1,010	770	304	150	114
29	83	68			-	54	275	970	759	304	148	112
30	80	*64			-	55	256	992	764	288	145	116
31	77	-			-	58	-	1,110	-	272	143	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,680	108	77	86.5	5,320
November	2,104	78	61	70.1	4,170
December	1,996	-	-	64.4	3,960
Calendar year 1949	63,683	732	-	174	126,300
January	1,849	-	-	59.6	3,670
February	1,636	-	-	58.4	3,240
March	1,800	69	54	58.1	3,570
April	5,779	395	58	193	11,460
May	19,160	1,110	216	618	38,000
June	28,015	1,150	759	934	55,570
July	14,253	759	272	460	28,270
August	6,020	266	143	194	11,940
September	3,801	141	112	127	7,540
Water year 1949-50	89,093	1,150	-	244	176,700

Peak discharge (base, 580 sec.-ft.).--June 7 (8 p.m.) 1,180 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

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.

Drainage area.--275 square miles.

Records available.--April 1942 to September 1950.

Extremes.--Maximum discharge during year, 1,230 second-feet May 25 (gage height, 5.71 feet); minimum, 59 second-feet Dec. 4.
1942-50: Maximum discharge, that of May 25, 1950; minimum, 25 second-feet Aug. 22, 1949.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	100	84				101	382	1,170	642	208	69
2	82	98	89				120	373	1,170	632	214	69
3	82	96	91				122	382	1,170	618	203	69
4	79	94	84				111	376	1,060	593	185	67
5	77	96				80	109	352	955	573	170	69
6	81	96			75		118	349	955	543	166	62
7	89	96					144	346	1,070	536	156	64
8	105	98		79		(*)	182	349	1,200	520	133	75
9	124	100				80	196	352	1,090	492	127	85
10	124	101				80	189	343	946	470	121	95
11	118	100				80	196	337	852	467	108	93
12	114	94				79	223	379	828	436	110	102
13	113	92				78	*229	483	872	409	110	102
14	111	94				77	276	687	896	380	102	106
15	109	96				77	273	820	929	363	98	127
16	109	94				78	334	900	955	344	95	143
17	113	91				79	407	980	976	317	93	141
18	144	91	84			79	480	1,100	992	296	92	137
19	136	87				76	410	1,180	946	289	92	135
20	130	87			80	81	426	1,080	905	284	90	135
21	124	85		84		77	544	1,030	860	279	88	135
22	118	84				79	603	1,080	856	269	86	133
23	116	87				77	639	1,130	864	248	85	135
24	113	92				82	516	1,190	856	243	81	133
25	109	89		(*)		87	457	1,210	880	228	80	129
26	107	85				87	447	1,190	856	214	80	127
27	105	87				85	473	1,130	780	217	77	125
28	105	91				84	480	1,140	697	233	75	123
29	105	92		75		81	429	1,150	675	267	73	123
30	103	*87			-	84	391	1,100	657	264	77	127
31	100	-			-	92	-	1,110	-	243	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,329	144	77	107	6,600
November	2,780	101	84	92.7	5,510
December	2,616	-	-	84.4	5,190
Calendar year 1949	58,439	680	26	160	115,900
January	2,475	-	-	79.8	4,910
February	2,185	-	-	78.0	4,330
March	2,499	92	-	80.6	4,960
April	9,625	639	101	321	19,090
May	24,010	1,210	337	775	47,620
June	27,918	1,200	657	931	55,370
July	11,909	642	214	384	23,620
August	3,545	214	70	114	7,030
September	3,235	143	62	108	6,420
Water year 1949-50	96,126	1,210	62	263	190,600

* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 5 to Mar. 11, Mar. 13, 14, 16 (no gage-height record Dec. 27 to Jan. 24, Feb. 17 to Mar. 8); discharge computed on basis of 2 discharge measurements, weather records, and records for station near Border.

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 Wyoming-Idaho State line, and 5.4 miles northeast of Geneva post office.

Drainage area.--45.3 square miles.

Records available.--October 1939 to September 1950.

Average discharge.--11 years, 15.1 second-feet.

Extremes.--Maximum discharge during year, 418 second-feet May 18 (gage height, 4.25 feet), from rating curve extended above 240 second-feet; minimum, 2.4 second-feet Mar.30, but may have been less during periods of ice effect or no gage-height record.
1939-50: Maximum discharge, that of May 18, 1950; minimum daily discharge, 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. No regulation.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	4.5	*4.0	4.5	b5.8	b4.0	5.8	78	124	32	14	6.2
2	4.5	4.5	4.2	5.0	b5.5	b4.0	8.2	77	126	30	13	6.2
3	4.2	4.5	4.0	4.5	b4.5	4.2	7.2	78	122	29	13	5.8
4	4.0	4.2	3.4	3.8	b4.7	4.5	6.9	75	108	28	14	5.5
5	4.2	4.5	3.8	b3.8	b5.0	4.9	8.5	68	96	28	13	5.5
6	4.5	4.5	3.6	b4.0	b5.0	4.9	8.5	69	89	27	12	5.5
7	4.7	4.2	3.6	b4.5	b5.2	*4.9	13	68	96	29	11	5.5
8	5.1	4.9	4.0	5.0	5.3	4.5	38	68	94	29	11	6.2
9	5.1	4.9	3.6	5.0	5.3	4.5	54	68	87	28	11	7.9
10	4.9	5.6	3.6	5.0	5.3	4.5	33	66	80	31	11	8.2
11	4.7	5.6	4.0	4.8	5.1	4.5	34	73	76	31	11	7.9
12	4.7	4.7	b4.0	4.5	4.5	b4.0	50	91	74	27	11	7.2
13	4.5	4.5	4.2	4.5	4.9	b4.0	77	133	73	25	11	6.8
14	4.5	4.7	4.2	4.7	4.7	4.2	82	186	70	23	10	7.2
15	4.2	4.9	5.1	5.5	4.2	4.2	75	240	68	22	9.6	8.2
16	4.0	4.5	5.6	7.0	4.2	4.5	109	274	64	21	9.3	7.2
17	6.0	4.2	4.7	8.5	4.2	4.7	121	300	62	20	8.9	6.8
18	8.8	4.2	4.5	10	b3.8	5.3	99	343	59	20	8.6	6.8
19	6.0	4.2	4.2	10	b3.8	4.9	75	242	58	19	8.2	6.8
20	5.8	3.8	b4.5	10	4.0	4.9	*99	216	57	19	7.9	6.8
21	5.6	3.8	4.5	10	3.8	4.7	136	221	52	18	7.9	7.2
22	5.1	3.8	4.7	10	4.2	4.7	152	233	50	18	7.5	7.2
23	4.9	3.8	4.7	10	3.8	5.1	125	235	48	17	7.5	6.8
24	4.9	6.0	4.5	9.5	3.8	4.9	91	223	45	16	7.5	6.8
25	4.7	5.8	b4.5	9.0	4.2	4.9	86	199	44	16	7.5	6.8
26	4.7	4.7	4.5	8.5	4.5	4.9	93	179	41	16	7.2	6.5
27	4.7	4.9	4.2	*8.2	4.5	4.9	101	168	39	16	7.2	6.5
28	4.7	5.3	4.0	7.2	4.2	4.7	97	159	36	16	6.8	6.5
29	4.9	4.9	b4.0	b6.0	-	4.5	86	148	35	22	6.8	5.8
30	4.7	4.5	b4.0	b6.0	-	4.5	77	138	34	16	6.8	7.2
31	4.5	-	b4.0	b6.0	-	4.7	-	132	-	15	6.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	153.1	8.8	4.0	4.94	304
November	139.1	6.0	3.8	4.64	276
December	130.4	5.6	3.4	4.21	259
Calendar year 1949	4,696.9	89	-	12.9	9,310
January	205.0	10	3.8	6.61	407
February	128.0	5.8	3.8	4.57	254
March	142.6	5.3	4.0	4.60	283
April	2,048.1	152	5.8	68.3	4,060
May	4,848	343	66	156	9,620
June	2,107	126	34	70.2	4,180
July	704	32	15	22.7	1,400
August	297.4	14	6.2	9.59	590
September	201.5	8.2	5.5	6.72	400
Water year 1949-50	11,104.2	343	3.4	30.4	22,000

Peak discharge (base, 40 sec.-ft.).--Apr. 22 (12:30 a.m.) 168 sec.-ft.; May 18 (8 a.m.) 418 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 8-26; discharge computed on basis of weather records and records for stations on nearby streams.

Thomas Fork near Wyoming-Idaho State line

Location.--Water-stage recorder, lat. 42°24', long. 111°01' in NW¼SE¼ sec. 19, T. 28 N., R. 119 W., in Wyoming, 1.3 miles downstream from Giraffe Creek, 1.5 miles upstream from State line, and 3½ miles northeast of Geneva, Idaho.

Drainage area.--113 square miles.

Records available.--October 1949 to September 1950.

Extremes.--Maximum discharge during year, 869 second-feet May 18 (gage height, 5.55 feet); minimum, 5.1 second-feet Nov. 21, but may have been less during period of no gage-height record.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	18	*16	16	20	16	21	220	406	107	50	28
2	19	18	17	17	19	16	27	213	402	102	48	28
3	18	18	16	16	17	17	25	215	375	99	48	28
4	18	17	15	14	18	18	24	202	330	99	49	27
5	18	17	15	14	18	19	26	188	305	96	47	26
6	19	17	15	15	18	20	27	188	295	92	45	26
7	19	17	15	16	18	*20	45	186	310	94	43	26
8	20	18	15	17	18	20	80	188	301	92	41	28
9	20	19	15	17	18	19	100	186	273	88	41	34
10	19	21	15	17	18	19	80	183	260	88	40	33
11	19	20	15	17	18	19	90	198	246	90	41	32
12	19	18	14	16	17	18	120	240	236	82	45	30
13	19	18	15	16	17	18	150	348	228	78	41	29
14	18	18	16	17	17	18	170	540	215	76	40	31
15	18	18	17	19	16	18	170	635	207	72	38	32
16	18	18	18	21	16	19	210	697	198	69	36	30
17	22	17	16	25	16	19	230	723	188	68	35	29
18	33	17	16	28	15	20	220	809	181	66	34	29
19	25	16	16	28	15	19	200	681	181	65	34	28
20	23	15	16	28	16	19	*265	628	174	63	33	a28
21	21	15	16	28	16	19	342	635	161	61	33	a27
22	20	15	17	28	16	19	394	676	154	60	32	26
23	19	16	17	27	16	19	360	681	149	59	32	26
24	19	21	17	*26	16	19	273	662	144	58	32	26
25	19	20	16	25	17	19	255	621	142	55	32	26
26	18	18	16	23	17	19	258	568	133	55	32	26
27	18	18	15	22	17	19	282	547	126	55	31	26
28	18	20	15	21	17	19	265	545	120	58	30	25
29	18	19	15	20	-	19	238	492	114	68	29	25
30	18	17	15	20	-	19	224	467	110	57	29	28
31	17	-	15	20	-	19	-	445	-	52	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	611	33	17	19.7	1,210
November	534	21	15	17.8	1,060
December	487	18	14	15.7	966
Calendar year	-	-	-	-	-
January	634	28	14	20.5	1,260
February	477	20	15	17.0	946
March	580	20	16	18.7	1,150
April	5,161	394	21	172	10,240
May	13,807	809	183	445	27,390
June	6,664	406	110	222	13,220
July	2,324	107	52	75.0	4,610
August	1,169	50	28	37.7	2,320
September	843	34	25	28.1	1,670
Water year 1949-50	33,291	809	14	91.2	66,040

Peak discharge (base, 150 sec.-ft).--Apr. 21 (12 m.) 423 sec.-ft.; May 18 (9:30 to 10:30 a.m.) 869 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

Note.--No gage-height record Dec. 14 to Apr. 19; discharge computed on basis of 2 discharge measurements, weather records, and combined flow records for Thomas Fork near Geneva, Idaho, and Salt Creek near Geneva, Idaho.

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.

Drainage area.--202 square miles.

Records available.--May 1942 to September 1950.

Extremes.--Maximum discharge during year, 1,070 second-feet May 19 (gage height, 7.62 feet); minimum, 9.7 second-feet Oct. 2, but may have been less during periods of ice effect or no gage-height record.

1942-50: Maximum discharge, that of May 19, 1950; minimum daily, 1.6 second-feet Oct. 1, 1942.

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede those published in the water-supply papers indicated.

Water-Supply Paper	Water year	Date	Gage height (feet)	Discharge (second-feet)
980.....	1943	Apr. 25	7.66	618
1,060.....	1946	Apr. 27	7.56	773
1,090.....	1947	May 6	6.91	427
1,120.....	1948	May 19	6.72	404

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

Revisions.--Revised figures of discharge for high-water periods in the water years 1943, 1946-48 are given herewith. They supersede those published in Water-Supply Papers 980, 1,060, 1,090, and 1,120.

Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)
1942-43		1945-46		1946-47	
Apr. 18.....	301	Apr. 27.....	738	May 8.....	383
19.....	355	28.....	705	9.....	361
20.....	408	29.....	672	10.....	341
21.....	494	30.....	634	11.....	332
22.....	546	May 1.....	602	12.....	336
23.....	506	2.....	546	13.....	356
24.....	510	3.....	498	14.....	330
25.....	594	4.....	460	15.....	290
26.....	586	5.....	443	16.....	257
27.....	578	6.....	420	17.....	248
28.....	490	7.....	399	18.....	227
29.....	437	8.....	380		
30.....	416	9.....	364	1947-48	
May 1.....	404	10.....	360	May 7.....	235
2.....	416	11.....	351	8.....	261
3.....	448	12.....	320	9.....	303
4.....	445	13.....	296	10.....	336
5.....	448	14.....	290	11.....	309
6.....	462	15.....	280	12.....	292
7.....	413	16.....	260	13.....	277
8.....	376	17.....	250	14.....	272
		18.....	230	15.....	280
1945-46		19.....	220	16.....	300
Apr. 17.....	281	20.....	210	17.....	325
18.....	353			18.....	352
19.....	439	1946-47		19.....	390
20.....	558	May 1.....	217	20.....	387
21.....	661	2.....	221	21.....	367
22.....	672	3.....	267	22.....	345
23.....	618	4.....	313	23.....	322
24.....	626	5.....	353	24.....	298
25.....	650	6.....	413	25.....	256
26.....	705	7.....	408	26.....	245
				27.....	241

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
April 1943.....	7,788	594	19	260	15,450
May 1943.....	8,242	462	164	266	16,350
Water year 1942-43.....	21,965.9	594	1.6	60.2	43,580
Calendar year 1943.....	22,871.1	594	-	62.7	45,370
April 1946.....	10,180	738	54	339	20,190
May 1946.....	9,149	602	160	295	18,150
Water year 1945-46.....	26,790	738	-	73.4	53,130
Calendar year 1946.....	27,477	738	-	75.3	54,490
May 1947.....	7,677	413	102	248	15,230
Water year 1946-47.....	22,113	413	-	60.6	43,870
Calendar year 1947.....	21,702.1	413	-	59.5	43,060
May 1948.....	8,651	390	212	279	17,160
Water year 1947-48.....	19,746.1	390	-	54.0	39,170
Calendar year 1948.....	19,541.8	390	9.3	53.4	38,760

Discharge, in second-feet, of Thomas Fork near Raymond, Idaho, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	18	*17	b16	b20	a15	16	303	528	127	74	31
2	9.7	18	15	b17	b19	a15	20	295	502	118	72	31
3	9.8	18	15	b16	b17	a16	24	297	498	112	71	32
4	9.9	18	15	b14	b18	a17	24	297	490	105	71	31
5	10	18	15	b14	b18	a18	22	285	443	106	73	31
6	10	18	15	b15	b18	a18	23	271	400	93	70	31
7	10	17	16	b16	b18	a18	30	268	396	90	66	31
8	11	17	16	b17	b18	*18	44	274	400	94	62	33
9	11	17	17	b17	b18	18	80	278	423	93	57	36
10	11	17	16	b17	b18	18	81	276	372	87	56	37
11	11	17	b16	b17	b18	18	75	265	338	90	56	37
12	11	17	b15	a16	b17	b16	90	264	325	93	60	36
13	11	17	b16	a16	b17	b16	119	278	299	92	62	36
14	11	16	b17	a17	b17	17	154	307	298	91	61	36
15	11	16	b18	a18	b16	17	a150	399	282	89	59	34
16	11	16	b19	a21	b16	17	a250	594	270	89	52	32
17	12	16	b17	a25	b16	17	a350	694	260	88	44	32
18	12	16	b16	a28	b15	17	a330	825	240	87	39	31
19	12	16	b16	a30	b15	17	*310	980	238	85	35	31
20	13	16	b16	a30	b15	17	295	799	235	89	35	31
21	13	16	b16	a30	b15	17	298	760	230	87	32	31
22	13	16	b17	a30	b15	17	332	773	218	82	32	31
23	13	16	b17	a30	a15	17	379	838	207	78	32	33
24	14	16	b17	a28	a15	16	400	864	197	76	33	38
25	15	16	b16	a26	a16	17	378	838	186	73	33	36
26	16	16	b16	a24	a16	17	350	812	182	70	33	34
27	17	16	b15	*b22	a16	17	335	738	178	68	32	33
28	18	15	b15	b21	a16	16	360	683	162	67	31	31
29	20	14	b15	b20	-	16	364	650	156	74	31	30
30	19	14	b15	b20	-	15	330	594	142	78	31	29
31	18	-	b15	b20	-	15	-	552	-	76	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	393.2	20	9.7	12.7	780
November	494	18	14	16.5	980
December	497	19	15	16.0	986
Calendar year 1949	14,343.1	188	5.4	39.3	28,440
January	648	30	14	20.9	1,290
February	468	20	15	16.7	928
March	520	18	15	16.8	1,030
April	6,013	400	16	200	11,930
May	16,351	980	264	527	32,430
June	9,095	528	142	303	18,040
July	2,747	127	67	88.6	5,450
August	1,526	74	31	49.2	3,030
September	986	38	29	32.9	1,960
Water year 1949-50	39,738.2	980	9.7	109	78,830

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

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 Wyoming-Idaho State line, and 4¾ miles northeast of Geneva post office.

Drainage area.--37.6 square miles.

Records available.--October 1939 to September 1950.

Average discharge.--11 years, 18.4 second-feet.

Extremes.--Maximum discharge during year, 382 second-feet May 18 (gage height, 5.02 feet); minimum, 1.4 second-feet Mar. 16, but may have been less during period of ice effect or no gage-height record.
1939-50: Maximum discharge, that of May 18, 1950; minimum, 0.5 second-foot Aug. 18, 1940.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.7	*5.0	*b4.5	b4.5	4.8	b4.0	5.0	71	160	38	16	7.6
2	5.5	5.0	b5.2	b5.0	b4.5	b4.2	6.4	68	155	36	15	7.9
3	5.0	4.8	4.8	b4.5	b4.0	b4.5	6.4	66	141	34	15	7.3
4	4.8	4.8	b4.0	b3.8	b4.2	4.7	6.0	62	125	33	15	7.0
5	5.0	4.7	b4.5	b3.8	b4.2	4.7	6.0	60	118	32	15	6.4
6	5.2	4.7	b4.3	b4.0	b4.3	b5.0	6.2	59	113	32	14	5.8
7	5.5	4.7	b4.3	4.5	b4.4	*5.0	9.1	60	120	31	14	6.1
8	6.2	4.8	4.8	5.0	4.5	b4.8	16	60	119	32	13	6.7
9	6.0	5.0	b4.3	5.0	4.5	4.3	17	59	107	30	13	9.2
10	6.0	5.2	b4.3	5.0	4.3	4.3	14	59	100	31	12	9.2
11	5.5	5.7	b4.3	4.8	4.3	b4.2	15	66	90	31	12	8.8
12	5.2	5.0	b4.3	4.5	4.3	b4.0	20	82	86	29	14	7.9
13	5.2	5.0	4.3	4.5	4.0	b4.0	27	127	81	28	13	7.3
14	5.0	4.5	4.0	4.7	4.2	b4.0	36	194	78	28	12	8.8
15	5.0	4.3	4.3	5.0	4.2	4.2	39	244	75	25	11	8.8
16	4.8	4.7	4.7	5.0	4.0	4.2	52	280	72	24	11	7.9
17	6.0	4.5	4.5	7.0	3.6	4.5	67	308	69	24	10	7.3
18	10	4.5	4.5	8.0	3.6	5.0	71	353	66	23	10	7.3
19	7.4	4.8	4.7	8.0	3.6	4.5	67	286	65	23	10	7.9
20	6.9	4.7	4.7	8.0	4.0	4.5	75	258	62	21	9.6	7.9
21	6.4	b4.2	4.7	8.0	4.2	4.3	92	264	57	20	9.6	7.9
22	6.2	b4.2	4.7	7.8	3.6	4.3	109	290	55	20	9.6	7.9
23	6.0	b4.2	4.8	7.4	4.0	4.5	110	294	53	20	9.2	7.9
24	5.5	5.2	5.0	*b7.0	4.3	4.3	90	283	52	19	9.2	7.6
25	5.2	5.0	b4.5	b6.5	4.5	4.5	83	264	49	18	9.2	7.3
26	5.2	4.7	b4.5	6.2	4.5	4.3	85	235	47	18	9.2	7.3
27	5.2	4.5	b4.2	5.2	b4.5	4.3	93	223	44	18	8.8	7.3
28	5.0	5.2	b4.0	4.8	b4.3	4.3	87	214	42	19	8.8	7.0
29	5.2	5.0	b4.0	5.0	-	4.2	77	190	41	22	8.3	7.3
30	5.0	4.7	b4.0	5.0	-	4.3	72	183	38	19	7.9	7.9
31	5.0	-	b4.0	4.8	-	4.3	-	174	-	17	7.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	176.8	10	4.8	5.70	351
November	143.3	5.7	4.2	4.78	284
December	137.7	5.2	4.0	4.44	273
Calendar year 1949	6,085.8	101	-	16.6	12,020
January	173.3	8.0	3.8	5.59	344
February	117.4	4.8	3.6	4.19	233
March	136.2	5.0	4.0	4.39	270
April	1,459.1	110	5.0	48.6	2,890
May	5,436	353	59	175	10,780
June	2,480	160	38	82.7	4,920
July	793	38	17	25.6	1,570
August	352.3	16	7.9	11.4	699
September	228.5	9.2	5.8	7.62	453
Water year 1949-50	11,633.6	353	3.8	31.9	23,070

Peak discharge (base, 50 sec.-ft.).--Apr. 22 (11:30 p.m.) 128 sec.-ft.; May 18 (7 a.m.) 382 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 7-23; discharge computed on basis of weather records and records for nearby streams.

Montpelier 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., 3 miles east of Montpelier and 3½ miles downstream from South Fork.

Drainage area.--50.9 square miles.

Records available.--December 1942 to September 1950.

Extremes.--Maximum discharge during year, 224 second-feet May 18 (gage height, 2.91 feet); minimum, 1.6 second-feet Feb. 3 (caused by ice jam upstream).
1942-50: Maximum discharge, that of May 18, 1950; minimum, 1.5 second-feet Jan. 20, 1944, but may have been less during periods of ice effect.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	11	9.4	8.0	8.5	8.5	13	103	144	69	38	22
2	12	11	9.6	8.9	5.3	8.5	23	99	146	68	36	21
3	11	10	10	8.0	2.1	9.5	20	95	136	64	37	21
4	10	10	8.6	7.0	10	10	17	88	130	64	38	21
5	11	10	9.4	7.0	9.7	11	17	84	126	62	36	21
6	12	10	9.1	7.5	9.4	11	17	83	125	61	34	21
7	12	10	9.1	8.0	8.8	11	22	83	133	62	33	20
8	13	11	9.3	8.5	7.6	11	33	86	133	61	31	21
9	13	11	9.3	8.5	8.5	11	36	82	124	59	31	24
10	13	12	9.4	8.5	8.6	11	32	79	117	64	30	22
11	12	12	8.5	8.0	8.6	10	35	87	113	61	31	22
12	12	10	7.6	7.5	7.7	9.9	44	99	112	55	32	21
13	11	10	8.9	7.5	8.0	10	53	120	110	53	30	21
14	11	10	7.2	7.5	8.5	10	61	154	107	53	28	21
15	10	10	7.6	8.0	8.0	9.9	63	171	106	52	26	22
16	9.9	10	9.4	9.0	7.8	9.9	76	176	105	50	26	20
17	12	10	9.4	11	7.8	11	91	185	104	49	24	20
18	19	9.9	9.4	13	7.7	13	98	212	101	49	24	19
19	15	9.9	9.3	13	7.4	12	97	186	99	47	24	18
20	14	9.7	7.6	13	8.0	11	111	174	97	45	24	19
21	12	9.4	8.3	13	7.7	11	135	172	92	45	23	19
22	12	9.3	8.5	12	8.0	11	145	174	90	45	22	19
23	12	9.6	8.8	11	8.0	11	144	177	88	44	22	19
24	12	14	8.9	10	8.0	11	120	176	87	42	22	19
25	12	13	7.4	8.5	8.5	12	117	167	83	41	22	18
26	12	11	8.9	9.9	9.3	11	123	159	81	41	22	18
27	13	11	8.8	10	9.5	11	130	156	78	41	22	17
28	12	12	8.5	9.6	9.0	11	121	156	76	42	22	17
29	12	12	8.0	9.3	-	10	108	150	74	45	22	17
30	12	10	8.2	9.3	-	11	99	147	71	41	22	17
31	11	-	7.7	8.8	-	11	-	146	-	39	22	18

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	377.9	19	9.9	12.2	750
November	318.8	14	9.3	10.6	632
December	270.1	10	7.2	8.71	536
Calendar year 1949	7,221.1	69	-	19.8	14,320
January	288.8	13	7.0	9.32	573
February	226.0	10	2.1	8.07	448
March	330.2	13	8.5	10.7	655
April	2,201	145	13	73.4	4,370
May	4,228	212	79	136	8,380
June	3,198	146	71	107	6,340
July	1,614	69	39	52.1	3,200
August	856	38	22	27.6	1,700
September	598	24	17	19.9	1,190
Water year 1949-50	14,504.8	212	2.1	39.7	28,770

Peak discharge (base, 60 sec.-ft.).--Apr. 21 (7:45 p.m.) 154 sec.-ft.; May 18 (11:30 a.m.) 224 sec. ft.

Note.--No gage-height record Jan. 3-23, Feb. 27 to Mar. 6; discharge computed on basis of weather records and records for stations on nearby streams.

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, unadjusted (levels by Utah Power & Light Co.).

Records available.--October 1945 to September 1950. 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, 1,402,000 acre-feet June 27 to July 1 (gage height, 23.38 feet); minimum, 947,300 acre-feet Jan. 20, 21 (gage height, 16.86 feet).
1921-50: Maximum contents, 1,423,000 acre-feet June 10, 1923 (gage height, 23.68 feet); no contents Nov. 9-19, 1935 (gage height, 2.00 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. 27) 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 causeway at south end of Mud Lake. Capacity, 1,421,000 acre-feet between gage heights, 2.00 feet (lower limit of pumps) and 23.65 feet (upper limit of storage with existing facilities). Storage water used for irrigation and power development.

Cooperation.--Gage heights 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.

Contents, in thousands of acre-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	966.5	972.0	967.2	955.5	953.5	953.5	1,022	1,121	1,302	1,402	1,370	1,304
2	966.5	970.6	967.2	955.5	953.5	954.2	1,024	1,129	1,308	1,401	1,368	1,299
3	965.8	969.2	967.2	955.5	953.5	955.5	1,027	1,136	1,315	1,401	1,367	1,295
4	964.5	968.6	967.2	955.5	953.5	956.9	1,030	1,141	1,320	1,401	1,366	1,292
5	963.8	968.6	967.2	954.2	953.5	958.3	1,032	1,146	1,325	1,401	1,363	1,290
6	962.4	968.6	967.2	954.2	953.5	959.7	1,035	1,152	1,330	1,401	1,361	1,286
7	961.7	968.6	967.2	953.5	954.2	961.0	1,038	1,158	1,335	1,401	1,359	1,282
8	961.7	968.6	967.2	952.8	954.9	962.4	1,041	1,164	1,339	1,401	1,356	1,279
9	961.7	968.6	966.5	952.8	955.5	963.8	1,044	1,170	1,344	1,401	1,353	1,275
10	961.7	969.2	965.8	952.1	956.2	965.2	1,047	1,175	1,348	1,401	1,351	1,272
11	961.7	969.2	965.2	952.1	956.9	967.2	1,050	1,181	1,351	1,401	1,349	1,270
12	961.7	968.6	965.2	951.5	956.9	970.6	1,054	1,186	1,355	1,401	1,347	1,268
13	961.7	967.9	964.5	950.8	956.9	973.4	1,057	1,193	1,358	1,401	1,346	1,265
14	961.7	967.2	963.8	950.8	956.2	975.4	1,060	1,198	1,362	1,400	1,344	1,263
15	961.7	966.5	963.1	950.1	955.5	977.5	1,064	1,203	1,366	1,399	1,344	1,259
16	961.7	966.5	962.4	948.7	954.9	979.6	1,068	1,207	1,370	1,399	1,343	1,256
17	961.7	966.5	962.4	948.0	954.2	982.3	1,072	1,210	1,375	1,397	1,342	1,252
18	963.8	966.5	962.4	948.0	954.2	984.4	1,074	1,215	1,378	1,396	1,342	1,249
19	966.5	966.5	962.4	948.0	954.2	987.2	1,076	1,222	1,382	1,394	1,341	1,246
20	968.6	966.5	962.4	947.3	954.2	989.2	1,079	1,228	1,385	1,392	1,340	1,243
21	969.9	966.5	962.4	947.3	953.5	992.0	1,081	1,234	1,388	1,390	1,339	1,240
22	970.6	966.5	961.7	948.0	953.5	994.8	1,083	1,238	1,391	1,388	1,337	1,238
23	972.0	966.5	961.0	949.4	952.8	998.2	1,086	1,243	1,394	1,386	1,334	1,236
24	972.7	967.2	960.4	952.1	952.8	1,001	1,089	1,248	1,396	1,385	1,331	1,235
25	972.7	967.2	960.4	954.2	952.8	1,004	1,092	1,254	1,397	1,383	1,328	1,234
26	972.7	967.2	959.7	954.2	952.8	1,007	1,097	1,261	1,400	1,380	1,325	1,232
27	972.7	967.2	959.0	954.2	952.8	1,011	1,102	1,268	1,402	1,378	1,321	1,231
28	972.7	967.2	957.6	954.2	953.5	1,013	1,106	1,274	1,402	1,375	1,318	1,228
29	972.7	967.2	956.9	954.2	-	1,016	1,111	1,281	1,402	1,374	1,314	1,226
30	972.7	967.2	956.2	954.2	-	1,018	1,117	1,288	1,402	1,373	1,311	1,222
31	972.7	-	955.5	953.5	-	1,020	-	1,295	-	1,371	1,307	-

Monthly elevation and contents, water year October 1949 to September 1950

Date	Elevation (feet)†	Contents (thousands of acre-feet)	Change in contents during month (thousands of acre-feet)
Oct. 1	5,917.14	966.5	+5.5
Nov. 1	5,917.22	972.0	-4.8
Dec. 1	5,917.15	967.2	-11.7
Calendar year 1949	-	-	-22.0
Jan. 1	5,916.98	955.5	-2.0
Feb. 1	5,916.95	953.5	0
Mar. 1	5,916.95	953.5	+68.5
Apr. 1	5,917.95	1,022	+99.0
May 1	5,919.37	1,121	+181
June 1	5,921.96	1,302	+100
July 1	5,923.38	1,402	-32.0
Aug. 1	5,922.93	1,370	-66.0
Sept. 1	5,921.98	1,304	-84.0
Oct. 1	5,920.78	1,220	-
Water year 1949-50	-	-	+253.5

† Mean daily elevation.

Bear Lake Outlet Canal near Paris, Idaho

Location.--Water-stage recorder, lat. 42°13'00", 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 1950. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Average discharge.--28 years, 310 second-feet.

Extremes.--Maximum daily discharge during year, 1,800 second-feet Aug. 5; minimum daily, 10 second-feet Apr. 9 to June 2.
1923-50: 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 ice effect or doubtful or no gage-height record, which are fair. Flow regulated by Bear and Mud Lakes.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	478	742	267	b255	*530	138	11	10	10	1,720	1,650	1,710
2	478	834	265	b270	539	138	11	10	10	1,680	1,650	1,720
3	476	693	263	b360	*542	100	11	10	d150	1,550	1,690	1,710
4	471	374	256	*513	b540	15	11	10	767	1,410	1,710	1,720
5	348	215	252	508	b540	15	11	10	784	1,330	1,800	1,720
6	196	215	247	*540	b420	15	11	10	637	1,160	1,760	1,730
7	200	218	243	*655	*b175	15	11	10	d735	1,210	1,730	1,720
8	208	225	261	650	*113	14	11	10	1,070	1,220	1,700	1,690
9	201	231	*274	658	111	14	10	10	d1,060	1,250	1,660	1,620
10	194	227	b265	*b705	*111	14	10	10	d1,130	1,270	1,480	1,620
11	206	322	b260	*773	b240	14	10	10	1,540	1,250	1,470	1,560
12	135	474	*b340	761	b500	14	10	10	d1,050	1,250	1,510	1,210
13	30	486	*511	*744	*b575	14	10	10	d655	1,220	1,510	914
14	29	490	510	741	*715	14	10	10	d890	1,240	1,510	1,200
15	29	392	400	735	*723	14	10	10	d405	1,300	1,490	1,340
16	30	252	*259	*730	720	13	10	10	314	1,390	1,510	1,340
17	30	254	b260	723	*718	13	10	10	d440	1,460	1,530	1,350
18	d30	256	b265	*729	718	13	10	10	692	1,460	1,540	1,350
19	31	254	b270	b740	718	13	10	10	d855	1,460	1,520	1,280
20	33	254	*272	b615	*718	13	10	10	1,020	1,440	1,530	1,130
21	34	252	270	*b295	715	13	10	10	1,030	1,420	1,530	1,090
22	34	254	b265	b160	709	13	10	10	d1,080	1,420	1,550	1,110
23	32	256	*b295	b165	*b615	13	10	10	1,240	1,410	1,520	1,110
24	95	258	b365	b235	*b365	12	10	10	d1,300	1,400	1,520	1,110
25	384	265	b385	*b410	*226	12	10	10	1,300	1,440	1,520	1,120
26	559	265	b390	*578	b220	12	10	10	1,410	1,540	1,500	1,150
27	437	263	*b420	*575	b200	12	10	10	1,720	1,550	1,540	1,160
28	355	265	*505	565	*129	12	10	10	1,690	1,570	1,630	1,200
29	623	267	*462	565	-	12	10	10	1,660	1,560	1,740	1,210
30	728	267	b400	*555	-	12	10	10	1,730	1,570	1,720	1,210
31	703	-	*b258	545	-	12	-	10	-	1,620	1,740	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,817	728	29	252	15,500
November	10,020	834	215	334	19,870
December	9,955	511	243	321	19,750
Calendar year 1949	153,143	1,190	7	420	303,700
January	17,053	773	160	550	33,820
February	13,145	723	111	469	26,070
March	748	138	12	24.1	1,480
April	308	11	10	10.3	611
May	310	10	10	10.0	615
June	28,374	1,730	10	946	56,280
July	43,770	1,720	1,160	1,412	86,820
August	49,460	1,800	1,470	1,595	98,100
September	41,134	1,730	914	1,371	81,590
Water year 1949-50	222,094	1,800	10	608	440,500

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of discharge measurements and records of gate changes.
Note.--No gage-height record Oct. 13, Dec. 13-16, 20, 21, 28, 29, Jan. 6, 15, 16, 27-31, Feb. 1, Mar. 4 to June 2; discharge computed as explained in footnote d.

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 1950. October 1911 to September 1914, fragmentary records collected at site 0.7 mile downstream just below power plant (now inoperative).

Average discharge.--10 years (1940-50), 30.4 second-feet.

Extremes.--Maximum discharge during year, 110 second-feet June 2 (gage height, 2.12 feet); minimum daily, 24 second-feet Feb. 6, Mar. 3-9.
1911-14, 1939-50: Maximum discharge observed, 162 second-feet June 8, 1912; minimum daily, 18 second-feet on many days February to May 1941.

Remarks.--Records good. No diversion above station. 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	29	27	26	25	25	27	30	101	57	49	45
2	32	29	27	26	25	25	27	31	104	58	49	43
3	32	29	27	26	25	24	27	31	94	57	49	43
4	32	29	27	26	25	24	27	31	82	58	49	43
5	32	29	27	26	25	24	27	32	80	58	50	43
6	32	29	27	25	24	24	28	31	85	58	49	44
7	32	29	27	25	25	24	29	31	92	58	49	44
8	32	29	27	25	25	24	29	32	89	57	49	44
9	32	29	27	25	25	24	29	32	85	56	48	44
10	32	29	27	25	25	25	29	32	82	58	48	43
11	32	29	27	25	25	26	30	31	76	57	48	42
12	32	29	26	25	25	26	30	32	76	56	48	41
13	32	28	26	25	25	26	31	33	77	56	48	42
14	32	28	26	25	25	25	31	34	79	56	48	42
15	32	28	26	25	25	25	31	35	78	54	48	42
16	32	28	26	25	25	26	33	35	77	55	48	42
17	32	28	26	25	25	26	33	41	77	54	47	42
18	33	28	26	25	25	26	32	64	77	53	47	41
19	32	28	26	25	25	26	32	70	76	52	47	41
20	32	28	26	25	25	26	32	70	74	52	47	41
21	32	28	26	25	25	26	32	69	71	51	47	41
22	32	28	26	25	25	26	32	72	69	51	47	41
23	32	28	26	25	25	26	32	75	68	50	47	41
24	31	28	26	25	26	26	32	96	66	50	47	41
25	31	28	26	25	26	26	32	97	64	50	45	41
26	31	28	26	25	26	26	32	96	62	49	46	41
27	31	28	26	25	26	26	32	98	61	48	46	41
28	31	28	26	25	26	26	31	101	59	49	45	41
29	31	27	26	25	-	26	30	101	59	48	45	42
30	30	27	26	25	-	26	30	99	58	48	45	42
31	30	-	26	25	-	26	-	103	-	48	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	983	33	30	31.7	1,950
November	850	29	27	28.3	1,690
December	817	27	26	26.4	1,620
Calendar year 1949	10,917	42	25	29.9	21,660
January	780	26	25	25.2	1,550
February	704	26	24	25.1	1,400
March	787	26	24	25.4	1,560
April	909	33	27	30.3	1,800
May	1,765	103	30	56.9	3,500
June	2,298	104	58	76.6	4,560
July	1,662	58	48	53.6	3,300
August	1,470	50	45	47.4	2,920
September	1,264	45	41	42.1	2,510
Water year 1949-50	14,289	104	24	39.1	28,360

Note.--No gage-height record Dec. 16 to Jan. 27, Feb. 27 to Mar. 5; discharge interpolated.

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.

Drainage area.--61.7 square miles.

Records available.--November 1938 to September 1950.

Average discharge.--11 years (1939-50), 32.4 second-feet.

Extremes.--Maximum discharge during year, 584 second-feet May 18 (gage height, 3.46 feet); minimum, 3.0 second-feet Dec. 1.
1938-50: Maximum discharge, 680 second-feet Apr. 21, 1948 (gage height, 3.60 feet); minimum observed, 0.5 second-foot Aug. 17, 1940.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	10	11	b12	b11	24	33	152	136	20	16	7.3
2	5.8	10	11	12	b11	24	45	154	126	18	15	7.5
3	5.3	10	11	b10	a10	26	47	150	116	17	7.0	4.9
4	5.3	10	12	b9.0	a10	28	46	140	102	15	6.3	6.8
5	5.6	10	11	b8.5	a11	38	47	129	92	15	5.8	7.3
6	7.0	9.8	10	a8.6	a12	50	66	120	83	15	5.6	7.5
7	10	9.8	9.8	a9.0	a11	43	150	120	90	23	5.6	7.5
8	11	11	10	a10	a11	38	301	144	98	19	7.3	5.3
9	11	13	9.0	*11	a12	36	240	152	87	17	9.8	6.5
10	12	22	9.5	12	a12	34	150	164	77	20	11	9.0
11	11	18	b9.6	12	a13	28	148	160	68	21	11	8.7
12	11	14	b9.4	b12	a13	29	211	160	64	19	14	9.0
13	11	13	b9.2	b12	a12	28	304	201	61	21	14	9.0
14	10	13	b9.0	b12	a13	28	288	272	56	21	15	9.2
15	9.8	14	b8.9	b13	a13	26	254	368	52	13	13	9.2
16	9.8	14	8.7	b13	*a13	24	338	387	48	11	12	6.1
17	10	13	9.0	b13	14	30	376	391	45	9.5	12	7.8
18	25	12	9.5	13	15	36	321	451	44	9.2	12	10
19	17	12	9.8	14	19	35	308	301	42	10	11	10
20	16	12	b9.2	17	15	32	335	249	40	11	11	10
21	15	11	b9.0	19	15	31	387	263	38*	9.8	11	9.2
22	13	10	b9.0	23	18	31	387	301	38	10	11	5.8
23	13	11	11	28	15	28	314	311	35	11	11	8.4
24	14	25	11	*28	15	30	246	291	38	13	10	9.0
25	14	20	b10	b25	18	31	232	243	38	19	10	8.7
26	13	16	b10	b21	21	28	229	222	33	19	5.6	10
27	13	15	12	18	24	28	246	209	30	18	4.9	10
28	12	*17	b12	b15	23	26	219	216	39	20	6.5	11
29	12	15	b12	b13	-	23	184	187	38	19	7.3	11
30	12	14	b12	b12	-	26	154	169	24	17	7.5	14
31	11	-	b12	b11	-	29	-	152	-	16	7.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	352.4	25	5.3	11.4	699
November	404.6	25	9.8	13.5	803
December	316.6	12	8.7	10.2	628
Calendar year 1949	10,880.7	252	-	29.8	21,590
January	446.1	28	8.5	14.4	885
February	400	24	10	14.3	793
March	948	50	23	30.8	1,880
April	6,606	387	33	220	13,100
May	6,929	451	120	224	13,740
June	1,878	136	24	62.6	3,720
July	496.5	23	9.2	16.0	985
August	306.5	16	4.9	9.89	608
September	255.7	14	4.9	8.52	507
Water year 1949-50	19,339.4	451	4.9	53.0	38,350

Peak discharge (base, 150 sec.-ft.).--Apr. 20 (10:45 p.m.) 508 sec.-ft.; May 18 (4:30 a.m.) 584 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of 2 discharge measurements, weather records, and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Mink Creek below Dry Fork, near Mink Creek, Idaho

Location.--Water-stage recorder, lat. 42°15'30", long. 111°40'30", in NE¼NW¼ sec. 33, T. 13 S., R. 41 E., 500 feet downstream from Dry Fork and 3 miles northeast of Mink Creek.

Drainage area.--19.3 square miles.

Records available.--April 1947 to September 1950.

Extremes.--Maximum discharge during year, 548 second-feet June 2 (gage height, 3.68 feet); minimum daily, 31 second-feet on many days.
1947-50: Maximum discharge, 600 second-feet May 29, 1948 (gage height, 3.65 feet); minimum, 26 second-feet Feb. 12-16, 1948.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Three diversions above station for irrigation, one of which first diverted water Sept. 24, 1949, to Worm Creek Basin for storage in Glendale Reservoir and irrigation in vicinity of Preston.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	38	33	31	37	49	49	128	522	288	75	34
2	43	37	35	32	36	51	56	127	528	276	72	33
3	42	37	35	31	35	52	59	125	479	268	71	34
4	42	37	35	31	36	53	59	120	433	252	68	34
5	42	37	33	31	36	59	59	119	444	238	62	32
6	42	37	32	31	36	a75	66	115	490	227	58	32
7	42	36	33	a31	36	a65	86	114	516	217	58	32
8	42	35	35	a31	36	a60	102	112	484	207	58	34
9	42	33	35	31	36	a55	102	114	417	194	57	33
10	42	39	35	31	36	a53	93	115	358	188	57	34
11	41	37	34	31	36	a50	87	123	344	182	56	34
12	40	36	34	31	36	a47	87	128	353	171	55	32
13	38	36	33	31	35	a45	98	135	377	160	53	31
14	38	35	33	31	35	a45	109	151	417	153	52	31
15	38	33	32	31	35	43	106	180	433	141	50	33
16	38	32	31	32	36	43	114	208	450	132	48	32
17	39	34	32	33	36	47	127	239	461	128	47	32
18	42	35	32	36	36	48	132	318	455	124	46	32
19	40	36	32	39	38	50	134	301	444	120	45	31
20	40	36	32	39	41	48	139	267	428	116	44	31
21	39	35	32	39	40	48	147	267	422	112	41	37
22	39	31	32	48	39	49	156	332	417	109	41	40
23	39	33	32	50	39	48	160	377	407	102	41	38
24	39	36	32	49	39	48	147	407	391	95	41	37
25	39	36	32	44	42	49	139	402	367	93	41	38
26	39	36	32	42	48	48	137	402	348	92	40	37
27	39	36	32	41	52	47	140	422	322	90	37	35
28	38	36	32	40	50	45	142	455	309	88	36	35
29	38	33	31	39	-	44	135	467	300	85	36	38
30	38	32	31	37	-	44	130	479	296	82	36	38
31	38	-	31	37	-	45	-	516	-	76	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,243	45	38	40.1	2,470
November	1,060	39	31	35.3	2,100
December	1,015	35	31	32.7	2,010
Calendar year 1949	27,237	359	29	74.6	54,040
January	1,111	50	31	35.8	2,200
February	1,073	52	35	38.3	2,130
March	1,553	75	43	50.1	3,080
April	3,296	160	49	110	6,540
May	7,765	516	112	250	15,400
June	12,412	528	296	414	24,620
July	4,806	288	76	155	9,530
August	1,557	75	35	50.2	3,090
September	1,024	40	31	34.1	2,030
Water year 1949-50	37,915	528	31	104	75,200

Peak discharge (base, 350 sec.-ft.).--June 2 (11:30 a.m.) 548 sec.-ft.
a No gage-height record; discharge computed on basis of records for Cub River near Preston, or interpolated.

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Mink Creek near Mink Creek, Idaho

Location.--Water-stage recorder, lat. 42°12', long. 111°46', in SE¼ sec. 15, T. 14 S., R. 40 E., 1,000 feet upstream from Bear Hollow, 1¼ miles upstream from mouth, and 3 miles southwest of town of Mink Creek.

Drainage area.--58.7 square miles.

Records available.--April 1943 to September 1950.

Extremes.--Maximum daily discharge during year, 427 second-feet June 2; minimum daily, 2.8 second-feet Aug. 24.
1943-50: Maximum daily discharge, that of June 2, 1950; minimum daily, 0.7 second-foot on many days in August and September 1944.

Remarks.--Records good except those for periods of ice effect or no gage-height record, 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.9	7.4	6.0	38	51	70	13	102	420	140	6.3	6.3
2	4.3	6.9	6.3	38	b48	71	30	97	427	130	7.4	4.3
3	4.0	6.9	6.3	38	b45	88	25	98	403	115	7.4	4.0
4	3.7	6.9	6.3	38	b48	100	16	98	329	100	9.2	3.3
5	3.7	6.9	6.3	38	53	117	16	94	319	91	7.4	3.7
6	4.0	6.3	6.0	38	56	112	29	91	331	79	6.0	4.3
7	4.6	6.3	6.0	38	58	52	72	88	379	71	5.6	4.3
8	4.0	6.3	6.3	38	52	24	121	140	384	56	6.0	4.3
9	3.7	6.3	6.3	*38	50	14	114	188	317	48	5.6	4.6
10	4.6	11	20	38	50	11	94	175	265	45	5.6	5.0
11	4.0	8.6	41	38	48	9.7	75	179	231	43	6.0	5.6
12	3.7	7.4	b40	b38	47	8.6	72	169	233	41	8.6	6.9
13	3.7	6.9	39	38	48	8.6	90	169	254	31	6.0	6.9
14	3.7	6.9	39	38	45	*8.0	110	183	272	25	6.0	6.9
15	3.3	6.3	39	b38	46	8.0	102	209	295	18	5.6	7.4
16	3.3	6.3	38	b39	46	8.0	112	238	300	13	5.3	8.0
17	5.3	6.3	38	40	48	19	128	267	317	11	6.0	7.4
18	8.0	6.3	38	51	48	15	132	358	326	11	5.6	6.9
19	6.9	6.9	38	57	52	20	125	336	310	11	5.0	5.0
20	9.7	6.9	38	57	58	17	126	286	288	9.7	4.6	5.0
21	9.7	6.3	38	61	57	12	144	283	272	7.4	4.3	5.0
22	9.2	6.3	38	96	53	13	166	312	260	6.3	4.3	5.0
23	8.6	6.3	38	114	48	10	175	346	247	6.3	3.7	5.3
24	8.6	8.0	38	100	54	10	156	394	251	6.0	2.8	5.3
25	8.0	6.9	38	*79	70	17	136	408	258	5.6	3.0	5.3
26	8.0	6.9	38	b72	84	11	132	265	247	5.6	4.6	5.3
27	7.4	6.9	38	66	91	9.2	146	350	216	5.3	4.0	5.3
28	7.4	6.9	38	62	82	7.4	146	372	183	7.4	3.3	5.3
29	7.4	*6.3	38	b60	-	6.3	126	386	152	6.3	4.0	5.3
30	7.4	6.3	38	b55	-	7.4	112	379	142	6.3	4.6	6.9
31	7.4	-	38	53	-	9.2	-	413	-	6.9	4.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	184.2	9.7	3.3	5.94	365
November	207.1	11	6.3	6.90	411
December	881.8	41	6.0	28.4	1,750
Calendar year 1949	13,542.6	283	1.9	37.1	26,860
January	1,632	114	38	52.6	3,240
February	1,536	91	45	54.9	3,050
March	893.4	117	6.3	28.8	1,770
April	3,041	175	13	101	6,030
May	7,573	413	88	244	15,020
June	8,628	427	142	288	17,110
July	1,158.1	140	5.3	37.4	2,300
August	168.4	9.2	2.8	5.43	334
September	164.1	8.0	3.3	5.47	325
Water year 1949-50	26,067.1	427	2.8	71.4	51,700

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 15 to Jan. 9; discharge computed on basis of 1 discharge measurement, weather records, and records for station below Dry Fork

Mink Creek Canal near Mink Creek, Idaho

Location.--Water-stage recorder and concrete Parshall flume, lat. 42°15'30", long. 111°40'-00", in SE¼ sec. 28, T. 13 S., R. 41 E., 600 feet downstream from head gates and 3½ miles northeast of town of Mink Creek.

Records available.--October 1949 to September 1950.

Extremes.--Maximum daily discharge during year, 30 second-feet on many days in August and September; no flow for several months.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Canal diverts for irrigation of same lands in vicinity of Preston as from former Preston-Riverdale & Mink Creek Canal. Land slides in vicinity of Riverdale on latter canal made its continued use too costly and hazardous. Water now routed through Glendale Reservoir.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									0	26	28	30
2									0	26	28	30
3									0	28	28	30
4									0	28	28	30
5									0	28	28	30
6									0	28	28	30
7									0	28	29	30
8									0	28	29	30
9									0	28	30	30
10									0	28	30	29
11									0	28	30	28
12									0	28	a30	28
13									0	28	a30	28
14									0	28	a30	28
15									a2	28	a30	28
16									0	28	a30	28
17									0	28	a30	28
18									0	28	30	28
19									0	28	30	28
20									6.7	28	30	28
21									14	28	30	18
22									20	28	29	15
23									20	28	30	14
24									18	28	30	15
25									23	28	30	17
26									23	28	30	18
27									23	28	30	20
28									22	28	30	19
29									25	28	30	16
30									26	28	30	16
31									-	28	30	-

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	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	222.7	26	0	7.42	442
July	864	28	26	27.9	1,710
August	915	30	28	29.5	1,810
September	747	30	14	24.9	1,480
Water year 1949-50	2,748.7	30	0	7.53	5,440

a No gage-height record; discharge computed on basis of records for Mink Creek below Dry Fork, near Mink Creek.

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 and 1 mile west of town of Mink Creek.

Records available.--April 1943 to September 1950.

Extremes.--Maximum daily discharge during year, 151 second-feet June 17, 18; no flow Dec. 11 to Feb. 22.
1943-50: Maximum daily discharge, 162 second-feet May 14, 1949; no flow at times in each year.

Remarks.--Records good except those for period of no gage-height record, which are fair. Canal diverts from west side of Mink Creek 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	a43	36		0	19	93	90	129	146	72	30
2	47	43	39		0	21	110	94	133	144	71	30
3	45	43	39		0	22	109	90	133	145	70	28
4	45	43	39		0	30	104	81	137	142	67	26
5	45	42	38		0	34	104	79	142	144	62	25
6	44	42	34		0	58	110	80	144	147	59	27
7	46	41	36		0	79	100	80	145	148	56	26
8	45	39	39		0	90	87	48	137	147	56	28
9	44	38	39		0	90	87	31	141	147	56	32
10	47	49	15		0	87	87	30	139	147	54	34
11	44	43	0		0	80	87	30	139	140	56	33
12	44	42	0		0	75	87	46	143	137	57	32
13	43	41	0		0	a72	88	54	145	138	55	30
14	43	40	0		0	a70	89	68	148	137	55	31
15	43	38	0		0	70	88	86	148	135	52	33
16	43	40	0		0	70	a89	90	150	127	49	33
17	47	41	0		0	87	a93	91	151	126	47	33
18	55	41	0		0	93	a98	93	151	120	46	32
19	47	41	0		0	95	a103	98	150	118	45	32
20	49	41	0		0	93	105	104	149	111	43	31
21	48	38	0		0	91	104	102	146	104	43	37
22	48	34	0		0	96	104	105	147	100	42	43
23	47	36	0		5.9	90	95	111	148	93	42	41
24	47	41	0		9.5	90	88	112	148	88	42	43
25	47	40	0		11	100	87	117	118	87	42	45
26	46	40	0		12	90	87	120	104	86	41	43
27	45	40	0		12	84	86	123	113	84	37	41
28	44	40	0		12	78	85	123	127	87	36	43
29	a43	38	0		-	75	84	125	141	83	36	47
30	a43	36	0		-	77	83	125	147	80	36	47
31	a43	-	0		-	84	-	126	-	77	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,410	55	43	45.5	2,800
November	1,214	49	34	40.5	2,410
December	354	39	0	11.4	702
Calendar year 1949	17,230.6	162	0	47.2	34,170
January	0	0	0	0	0
February	62.4	12	0	2.23	124
March	2,290	100	19	73.9	4,540
April	2,821	110	83	94.0	5,600
May	2,752	126	30	88.8	5,460
June	4,193	151	104	140	8,320
July	3,715	148	77	120	7,370
August	1,559	72	34	50.3	3,090
September	1,036	47	25	34.5	2,050
Water year 1949-50	21,406.4	151	0	58.6	42,470

a No gage-height record; discharge computed on basis of recorded range in stage and records for Mink Creek below Dry Fork near Mink Creek, Mink Creek near Mink Creek, and Preston-Riverdale & Mink Creek Canal near Mink Creek.

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 town of Mink Creek.

Records available.--April 1943 to September 1950.

Extremes.--Maximum daily discharge during year, 33 second-feet July 4, no flow Nov. 5 to May 25.
1943-50: Maximum daily discharge, 46 second-feet June 28-30, July 2, 1943; no flow at times in each year.

Remarks.--Records good. 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	0.1						0	21	25	12	7.9
2	6.0	.1						0	21	24	12	9.6
3	6.0	.1						0	20	26	12	8.4
4	6.0	.1						0	19	33	13	7.9
5	6.2	0						0	23	31	11	8.4
6	6.7	0						0	29	30	9.4	8.8
7	6.5	0						0	32	31	10	9.0
8	5.4	0						0	24	31	8.8	8.6
9	5.2	0						0	24	29	8.8	9.4
10	5.8	0						0	21	29	9.2	10
11	5.2	0						0	19	28	8.6	9.4
12	5.2	0						0	19	26	9.0	9.4
13	5.1	0						0	25	22	10	9.4
14	5.1	0						0	26	17	11	10
15	5.2	0						0	24	14	9.0	8.1
16	5.2	0						0	24	13	10	7.1
17	6.5	0						0	24	11	9.2	6.7
18	7.3	0						0	24	11	8.4	8.1
19	2.4	0						0	23	13	7.3	9.4
20	.3	0						0	22	11	7.1	9.0
21	.7	0						0	23	11	6.9	8.6
22	.7	0						0	22	11	7.3	8.8
23	.3	0						0	20	12	8.1	8.8
24	.2	0						0	21	11	8.1	5.6
25	.1	0						0	20	10	7.7	4.3
26	.1	0						5.4	19	11	8.1	4.3
27	.1	0						13	17	12	7.9	4.1
28	.1	0						14	23	13	9.0	4.1
29	.1	0						16	26	11	9.0	4.8
30	.1	0						21	26	12	9.2	4.8
31	.1	-						22	-	14	9.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	115.9	12	0.1	3.74	230
November	.4	.1	0	.01	1
December	0	0	0	0	0
Calendar year 1949	4,267.6	40	0	11.7	8,470
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	91.4	22	0	2.95	181
June	681	32	17	22.7	1,350
July	583	33	10	18.8	1,160
August	286.5	13	6.9	9.24	568
September	232.8	10	4.1	7.76	462
Water year 1949-50	1,991.0	33	0	5.45	3,950

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.

Drainage area.--19.4 square miles.

Records available.--March 1940 to September 1950.

Average discharge.--10 years, 86.2 second-feet.

Extremes.--Maximum discharge during year, 692 second-feet June 7 (gage height, 3.47 feet); minimum, 12 second-feet Jan. 17 (caused by ice jam upstream).
1940-50: Maximum discharge, 705 second-feet June 2, 1943 (gage height, 3.83 feet); minimum, that of Jan. 17, 1950.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	26	28	23	24	35	34	118	604	403	100	56
2	30	26	28	b23	b20	35	47	113	626	383	97	54
3	30	26	28	b22	b20	38	48	108	569	363	95	54
4	30	26	28	b21	b21	41	44	102	494	340	93	54
5	30	26	28	b21	23	53	45	98	520	314	92	53
6	30	26	27	23	23	62	58	95	560	290	90	53
7	30	26	27	23	23	50	74	92	656	280	89	51
8	30	27	27	23	23	43	88	92	567	264	85	50
9	30	27	28	24	23	38	82	94	458	248	84	50
10	31	29	27	23	23	37	68	99	387	242	82	50
11	30	27	26	23	23	34	65	108	363	234	81	49
12	30	27	25	b23	22	31	71	116	433	217	79	48
13	29	26	25	23	22	30	87	130	497	202	76	46
14	29	26	26	b23	22	30	95	164	536	187	73	46
15	29	26	26	b23	22	*29	95	212	571	177	72	46
16	29	27	26	b25	22	29	107	256	615	170	70	45
17	31	27	25	29	21	33	118	295	642	164	70	45
18	31	26	26	32	21	37	127	385	628	154	67	44
19	30	26	26	32	22	38	121	346	597	150	67	43
20	30	26	25	29	24	37	127	305	567	146	66	43
21	28	26	24	29	24	35	142	305	553	137	64	43
22	28	26	24	36	24	36	164	354	549	133	63	43
23	28	27	24	39	24	34	179	464	527	129	63	44
24	28	28	25	37	24	33	162	547	514	127	61	43
25	28	28	24	32	25	34	151	533	497	123	61	43
26	27	27	24	b30	30	32	151	481	454	120	61	42
27	27	27	23	28	36	31	155	477	428	118	60	42
28	27	28	23	28	34	30	149	511	420	116	60	42
29	27	28	*23	b27	-	28	134	547	416	110	58	42
30	27	29	23	*25	-	29	123	569	412	109	58	42
31	26	-	23	25	-	30	-	604	-	105	57	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	901	31	26	29.1	1,790
November	803	29	26	26.8	1,590
December	792	28	23	25.5	1,570
Calendar year 1949	28,404	516	18	77.8	56,360
January	824	39	21	26.6	1,630
February	665	36	20	23.8	1,320
March	1,112	62	28	35.9	2,210
April	3,111	179	34	104	6,170
May	8,720	604	92	281	17,300
June	15,660	656	363	522	31,060
July	6,255	403	105	200	12,410
August	2,294	100	57	74.0	4,550
September	1,406	56	42	46.9	2,790
Water year 1949-50	42,543	656	20	117	84,390

Peak discharge (base, 440 sec.-ft.).--June 7 (10 a.m.) 692 sec.-ft.; June 17 (11:30 a.m.) 656 sec.-ft.

* Winter discharge measurement made on this day.
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.

Drainage area.--53.7 square miles.

Records available.--March 1940 to September 1950.

Average discharge.--10 years, 63.1 second-feet.

Extremes.--Maximum discharge during year, 740 second-feet May 25 (gage height, 3.80 feet); minimum daily, 3.5 second-feet Oct. 31, Nov. 1, 5-7, 13, 14, 17-22.
1940-50: Maximum discharge, that of May 25, 1950; minimum daily, 0.6 second-foot Sept. 16, 1948.

Remarks.--Records good. Station is below all diversions from Cub River except Franklin-Cub River pumping station.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	3.5	6.2	31	38	56	56	139	530	185	4.4	5.3
2	16	3.8	10	34	27	56	79	147	518	176	5.9	5.5
3	14	3.8	9.4	26	30	66	85	147	466	147	6.2	6.4
4	14	3.8	8.5	23	44	72	67	140	378	111	5.6	5.5
5	12	3.5	8.9	28	52	90	65	134	358	81	5.3	5.3
6	9.4	3.5	8.5	33	46	118	78	127	375	67	5.2	5.3
7	9.9	3.5	8.9	32	44	85	112	127	451	71	5.1	5.3
8	14	3.8	8.9	34	41	69	149	151	489	123	4.8	5.5
9	18	3.8	8.9	36	40	59	134	177	415	73	4.7	5.6
10	25	5.6	10	33	40	53	106	165	306	75	4.6	6.2
11	29	4.8	8.5	33	40	45	91	190	259	120	5.0	6.0
12	22	4.0	7.6	29	40	40	106	219	273	98	45	5.9
13	14	3.5	9.4	33	37	37	120	234	310	52	40	5.8
14	14	3.5	9.4	32	36	37	156	284	335	36	14	5.8
15	14	3.8	8.9	29	32	36	139	337	386	15	6.8	5.6
16	14	3.8	9.9	30	32	35	165	404	391	8.4	6.0	5.6
17	15	3.5	10	36	34	48	196	407	404	7.8	5.6	5.9
18	16	3.5	11	48	35	62	210	497	429	7.0	5.6	5.8
19	14	3.5	11	54	35	58	208	497	412	5.3	5.5	5.9
20	16	3.5	9.9	50	40	63	217	445	404	4.7	5.5	5.9
21	16	3.5	21	48	40	54	254	431	407	4.4	5.5	6.8
22	15	3.5	30	74	39	54	276	466	375	4.6	5.3	8.0
23	14	3.8	34	80	39	53	289	542	360	4.7	5.3	8.4
24	14	4.0	36	73	39	50	234	664	360	4.7	5.3	8.5
25	14	3.8	32	59	45	59	196	717	338	4.7	5.3	7.6
26	14	3.8	33	49	55	56	165	648	275	5.0	5.2	6.6
27	14	3.8	32	54	63	49	175	591	237	5.1	5.2	6.5
28	11	3.8	31	50	60	44	175	557	209	5.0	5.2	6.4
29	4.0	3.8	30	41	-	40	152	536	205	5.3	5.3	6.5
30	4.0	3.8	33	44	-	40	144	515	195	4.7	5.3	19
31	3.5	-	31	43	-	46	-	536	-	4.3	5.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	437.8	29	3.5	14.1	868
November	113.6	5.6	3.5	3.79	225
December	526.8	36	6.2	17.0	1,040
Calendar year 1949	19,747.1	490	1.7	54.1	39,160
January	1,299	80	23	41.9	2,580
February	1,143	63	27	40.8	2,270
March	1,730	118	35	55.8	3,430
April	4,599	289	56	153	9,120
May	11,171	717	127	360	22,160
June	10,850	530	195	362	21,520
July	1,515.7	185	4.3	48.9	3,010
August	249.0	45	4.4	8.03	494
September	198.4	19	5.3	6.61	394
Water year 1949-50	33,833.3	717	3.5	92.7	67,110

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 1950.

Extremes.--Maximum daily discharge during year, 85 second-feet June 7; no flow at times. 1943-50: Maximum daily discharge, that of June 7, 1950; no flow at times each year.

Remarks.--Records good except those for period 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	12	20		0	a19	33	29	68	69	38	1.1
2	0	12	22		0	a20	41	16	71	68	36	1.0
3	0	12	21		0	a21	41	16	73	69	34	1.0
4	0	12	21		0	22	41	17	73	70	34	1.0
5	0	12	21	b3	0	26	44	16	76	68	34	1.1
6	0	12	21		0	29	51	16	80	66	33	1.0
7	0	12	21		0	24	55	16	85	70	32	1.0
8	0	13	21		0	22	51	15	71	71	28	1.2
9	0	13	22		0	22	46	9.2	41	71	27	1.3
10	0	14	22		0	25	44	9.9	41	69	26	1.8
11	0	13	21		0	23	44	5.9	50	52	25	1.4
12	0	13	24	a2	0	22	43	3.7	59	51	24	.9
13	0	13	19		0	22	44	2.1	70	63	24	.8
14	0	13	21		a10	21	46	1.8	68	60	24	.8
15	0	14	24		a20	*22	45	1.2	40	59	22	.9
16	0	15	23		b20	22	45	1.1	66	59	18	.9
17	0	14	20		b20	25	46	.9	62	58	15	.9
18	0	14	20	a1	b20	27	37	1.4	50	57	13	.7
19	0	14	21		b20	28	22	.9	55	56	12	.7
20	0	14	18		b20	27	22	.6	69	58	11	.7
21	0	14	b6.0		b20	26	21	.1	73	59	10	.7
22	0	14	6.3		b20	27	20	0	71	58	9.9	.9
23	0	15	6.3		b12	27	19	0	59	56	9.4	.9
24	0	16	5.3		b10	27	18	0	62	54	7.6	.9
25	0	15	b5.0		b10	29	19	0	68	52	7.4	1.0
26	0	15	b4.0	0	19	28	42	0	62	49	6.1	1.0
27	0	15	b3.0		18	27	44	5.7	62	46	5.9	1.0
28	a5.0	*15	b3.0		18	27	44	45	65	44	5.3	.9
29	a10	16	*b3.0		-	27	41	55	62	43	3.9	1.1
30	a10	19	b3.0		-	27	32	63	69	40	2.6	1.3
31	a11	-	b3.0		-	30	-	62	-	40	2.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	36.0	11	0	1.16	71
November	415	19	12	13.8	823
December	470.9	24	3.0	15.2	934
Calendar year 1949	6,173.3	73	0	16.9	12,240
January	44	-	-	1.4	87
February	257	20	0	9.18	510
March	771	30	19	24.9	1,530
April	1,141	55	18	38.0	2,260
May	410.5	63	0	13.2	814
June	1,921	85	40	64.0	3,810
July	1,805	71	40	58.2	3,580
August	580.5	38	2.4	18.7	1,150
September	29.9	1.8	.7	1.00	59
Water year 1949-50	7,881.8	85	0	21.6	15,630

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of watermaster's notes, record for Cub River near Preston, Cub River above Maple Creek, near Franklin, Preston-Whitney Canal near Preston, and Cub River Canal near Preston.

b Stage-discharge relation affected by ice.

Preston-Whitney Canal near Preston, Idaho

Location.--Water-stage recorder 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 1946 to September 1950 in reports of Geological Survey. April 1944 to September 1948 (irrigation seasons only) in Bear River Hydrometric Data reports.

Extremes.--Maximum daily discharge during year, 43 second-feet June 30, July 2-4; minimum daily, 0.7 second-foot Apr. 24 to May 9, May 13, 14.
1946-50: Maximum daily discharge, 60 second-feet June 20, 1948; no flow during winter months and at other times in most years.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.0	1.4				a1.4	0.7	30	42	16	15
2	1.4	1.0	1.4				a1.4	.7	35	43	16	14
3	1.4	1.2	1.4				a1.4	.7	34	43	16	12
4	1.6	1.2	1.2				a1.4	.7	32	43	16	12
5	1.9	1.2	1.4				1.4	.7	38	42	16	12
6	1.9	1.4	1.2				1.4	.7	41	42	16	12
7	1.9	1.4	1.4				1.4	.7	35	38	16	12
8	1.9	1.4	1.4				1.2	.7	16	27	16	12
9	1.7	1.4	1.6				1.2	.7	11	23	16	12
10	1.7	1.4	1.6				1.2	.8	11	22	16	12
11	1.6	1.4	2.6				1.2	.8	16	22	16	12
12	1.6	1.4	3.8				1.2	.8	25	12	16	12
13	1.6	1.4	2.1				1.2	.7	26	2.8	16	12
14	1.6	1.4	1.4				1.1	.7	26	2.8	16	12
15	1.6	1.4	1.2	a1.2	a1.3	a1.4	1.1	.8	28	5.2	15	12
16	1.6	1.4	1.2				1.1	.8	37	25	15	11
17	1.6	1.4	a1.2				1.1	.8	40	24	15	11
18	1.4	1.4	a1.2				.9	.9	33	23	15	11
19	1.4	1.4	a1.2				.9	.9	30	23	15	11
20	1.4	1.4	a1.2				.9	3.2	29	19	15	8.0
21	1.4	1.4	a1.2				.9	6.4	29	15	15	6.6
22	1.4	1.4	a1.2				.8	6.6	28	15	15	6.6
23	1.2	1.4	a1.2				.8	6.6	34	15	15	6.6
24	1.2	1.6	a1.2				.7	6.2	28	16	15	6.6
25	1.2	•1.6	a1.2				.7	5.4	27	16	15	6.6
26	1.2	1.6	a1.2				.7	8.6	26	16	15	6.6
27	1.2	1.6	a1.2				.7	10	26	16	15	6.6
28	1.2	1.6	a1.2				.7	12	32	16	15	6.6
29	1.0	1.4	1.2		-		.7	17	37	16	15	6.6
30	1.0	1.4	a1.2		-		.7	17	43	17	15	6.4
31	1.0	-	a1.2		-		-	20	-	17	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	45.2	1.9	1.0	1.46	90
November	41.6	1.6	1.0	1.39	83
December	44.3	3.8	1.2	1.43	88
Calendar year 1949	1,624.8	38	0	4.45	3,220
January	37.2	-	-	1.2	74
February	36.4	-	-	1.3	72
March	43.4	-	-	1.4	86
April	31.5	1.4	.7	1.05	62
May	133.3	20	.7	4.30	264
June	883	43	11	29.4	1,750
July	698.8	43	2.8	22.5	1,390
August	479	16	15	15.4	950
September	302.8	15	6.4	10.1	601
Water year 1949-50	2,776.5	43	0.7	7.61	5,510

a No gage-height record; discharge interpolated.

Cub River Canal near Preston, Idaho

Location.--Water-stage recorder 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 1946 to September 1950 in reports of Geological Survey. April 1944 to September 1948 (irrigation season only 1944-46), in Bear River Hydrometric Data reports. Irrigation seasons for 1927-43 (fragmentary), available in files of Cub River Irrigation Co., Lewiston, Utah.

Extremes.--Maximum daily discharge during year, 155 second-feet July 6; no flow Dec. 2 to May 23, Aug. 12.
1946-50: Maximum daily discharge, that of July 6, 1950; no flow during winter months and at other times each year.

Remarks.--Records good except those for periods of no gage-height record, which are fair. No diversion 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	14	3.9					0	72	142	42	40
2	24	13	0					0	89	142	a39	a40
3	24	14	0					0	97	149	a39	39
4	23	13	0					0	105	150	a37	43
5	24	13	0					0	113	154	a37	43
6	26	14	0					0	124	155	a37	42
7	28	14	0					0	87	128	a36	42
8	23	15	0					0	54	92	a38	42
9	19	16	0					0	67	126	a38	44
10	15	24	0					0	97	113	a38	46
11	7.9	20	0					0	98	82	a39	44
12	15	18	0					0	113	94	a0	42
13	22	17	0					0	124	116	a3	41
14	21	16	0					0	130	118	a28	40
15	22	16	0					0	137	123	35	41
16	22	13	0					0	137	99	37	41
17	24	a13	0					0	139	90	39	42
18	33	13	0					0	142	84	38	41
19	26	13	0					0	146	80	40	40
20	25	13	0					0	97	74	a40	40
21	24	12	0					0	78	66	a39	39
22	24	12	0					0	100	63	39	39
23	24	11	0					0	117	58	40	39
24	24	16	0					1.6	105	51	42	38
25	23	14	0					12	96	51	41	40
26	23	14	0					24	127	50	41	40
27	22	14	0					36	138	48	40	39
28	20	14	0					46	138	47	41	39
29	19	13	0					48	139	46	41	40
30	19	8.8	0					57	139	44	41	21
31	18	-	0					63	-	44	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	689.9	33	7.9	22.2	1,370
November	430.8	24	8.8	14.4	854
December	3.9	3.9	0	0.13	7.7
Calendar year 1949	8,143.0	133	0	22.3	16,150
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	287.6	63	0	9.28	570
June	3,345	146	54	112	6,630
July	2,879	155	44	92.9	5,710
August	1,125	42	0	36.3	2,230
September	1,207	46	21	40.2	2,390
Water year 1949-50	9,968.2	155	0	27.3	19,760

a No gage-height record; discharge computed on basis of records for Cub River above Maple Creek, near Franklin, Cub River-Worm Creek Canal near Preston, Preston-Whitney Canal near Preston.

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.

Drainage area.--21.2 square miles.

Records available.--April 1946 to September 1950.

Extremes.--Maximum discharge during year, 315 second-feet May 18 (gage height, 3.15 feet); minimum daily, 1.7 second-feet Oct. 5, Nov. 4-7.
1946-50: Maximum discharge, that of May 18, 1950; minimum daily, 1.0 second-foot Sept. 26-30, 1948.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	2.0	4.0	2.0	6.6	23	24	56	149	37	6.6	2.4
2	2.0	1.8	4.0	1.8	6.0	24	33	55	146	35	6.3	2.4
3	1.8	1.8	3.6	1.8	5.4	32	39	55	120	31	6.0	2.4
4	1.8	1.7	3.4	1.8	5.4	36	37	51	103	28	6.0	2.4
5	1.7	1.7	3.4	1.8	5.4	45	35	47	106	27	6.0	2.4
6	1.8	1.7	3.4	2.0	5.4	53	40	44	123	26	5.7	2.4
7	2.1	1.7	3.4	2.0	5.7	41	57	44	142	26	5.1	2.2
8	2.4	1.8	3.0	2.0	5.7	34	78	53	117	25	4.5	2.4
9	2.2	1.8	3.0	2.0	6.0	29	73	59	87	23	4.8	2.8
10	2.6	3.2	2.8	2.6	6.0	26	63	51	72	24	4.8	3.8
11	2.2	2.6	3.4	2.8	6.3	24	54	69	76	23	5.1	3.2
12	2.1	2.2	3.2	2.8	6.0	21	56	98	91	22	5.1	3.0
13	2.0	2.2	2.6	2.8	5.7	18	75	123	94	20	4.8	2.6
14	1.8	2.2	2.8	2.8	6.0	17	86	153	94	18	4.0	2.6
15	1.8	2.4	2.8	2.8	6.0	16	75	174	96	18	4.0	2.6
16	1.8	2.6	2.4	2.8	6.0	16	86	191	96	15	3.8	2.6
17	2.1	2.8	2.4	3.2	6.3	27	107	226	92	14	3.8	2.4
18	4.0	2.8	2.2	6.0	6.3	27	115	290	84	12	3.6	2.4
19	2.4	3.0	2.1	11	6.9	30	108	201	77	12	3.6	2.2
20	2.4	3.0	4.0	10	9.4	30	113	166	70	11	3.6	2.2
21	2.2	3.2	2.6	11	9.8	26	126	174	69	9.4	3.2	2.1
22	2.1	3.2	2.2	37	9.8	27	143	206	72	8.9	3.2	2.2
23	2.2	3.0	2.2	34	9.4	26	138	248	69	8.9	3.6	2.2
24	2.2	4.0	2.2	24	10	24	108	252	65	8.5	3.4	2.2
25	2.2	4.0	3.4	16	15	30	94	205	62	8.0	3.4	2.2
26	2.2	4.0	2.1	13	20	27	91	176	53	7.6	3.4	2.2
27	2.2	4.0	2.1	11	24	27	93	166	47	7.2	3.0	2.2
28	2.1	4.2	2.1	10	24	20	82	176	43	7.6	3.0	2.2
29	2.0	4.2	2.1	8.5	-	18	71	167	41	7.2	2.8	2.4
30	2.0	4.5	2.0	8.0	-	18	58	155	39	7.2	2.8	3.2
31	2.0	-	1.8	7.2	-	20	-	162	-	6.9	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	67.0	4.0	1.7	2.16	133
November	83.3	4.5	1.7	2.78	165
December	86.7	4.0	1.8	2.80	172
Calendar year 1949	6,400.8	134	1.1	17.5	12,690
January	246.5	37	1.8	7.95	489
February	244.5	24	5.4	8.73	485
March	832	53	16	26.8	1,650
April	2,356	143	24	78.5	4,670
May	4,291	290	44	138	8,510
June	2,595	149	39	86.5	5,150
July	534.4	37	8.9	17.2	1,060
August	131.6	6.6	2.6	4.25	261
September	74.5	3.8	2.1	2.48	148
Water year 1949-50	11,542.5	290	1.7	31.6	22,890

Peak discharge (base, 150 sec.-ft.).--Apr. 23 (12:30 a.m.) 160 sec.-ft.; May 18 (7 a.m.) 315 sec.-ft.; May 24 (12 p.m.) 291 sec.-ft.

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.

Drainage area.--16.2 square miles.

Records available.--April 1946 to September 1950 in reports of Geological Survey. April 1944 to September 1948 (irrigation seasons only) in Bear River Hydrometric Data reports.

Extremes.--Maximum discharge during year, 250 second-feet May 24 (gage height, 2.31 feet); minimum observed, 2.6 second-feet Jan. 5, from discharge measurement (caused by ice jams upstream); minimum daily, 7.0 second-feet Jan. 5, 6.
1946-50: Maximum discharge, that of May 24, 1950; minimum observed, that of Jan. 5, 1950; minimum daily, 5.0 second-feet Feb. 8-14, 1948.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	12	12	9.5	a10	20	16	47	217	134	33	16
2	8.2	11	11	9.8	a9.0	21	22	45	214	128	32	16
3	8.2	11	11	b9.0	a9.0	22	26	43	186	120	32	15
4	8.2	10	10	8.0	a9.5	20	25	41	175	113	32	15
5	8.5	10	10	*a7.0	a10	22	23	40	184	106	31	14
6	8.5	9.8	9.8	a7.0	a10	29	28	38	202	101	30	14
7	8.8	9.8	9.6	a7.5	a11	26	40	38	212	100	28	14
8	8.5	10	9.5	a8.0	a11	22	51	38	166	94	28	14
9	9.1	9.8	9.8	a8.5	12	20	48	38	141	89	27	14
10	9.5	11	10	a9.0	12	19	38	38	125	92	26	15
11	9.1	10	9.8	a9.5	12	18	32	51	125	38	26	14
12	9.1	10	b9.5	a10	11	17	36	70	138	77	25	14
13	9.5	11	8.8	a10	11	*16	51	88	146	70	24	14
14	9.5	11	b8.6	a10	10	14	58	107	151	67	24	14
15	9.5	12	b8.5	a10	9.8	14	50	120	175	62	23	14
16	9.5	11	b9.4	a10	9.8	14	55	128	194	59	22	13
17	12	12	b8.3	a11	10	16	66	144	194	56	22	13
18	16	12	8.2	a12	11	19	68	194	180	53	21	13
19	12	12	8.8	a15	13	20	62	164	175	52	20	13
20	12	12	b8.5	a16	16	19	68	144	166	50	20	13
21	12	11	b8.0	a18	15	19	77	146	171	48	20	13
22	12	11	b8.0	a30	14	19	85	166	173	46	19	13
23	12	11	8.5	a28	14	18	85	199	166	44	19	12
24	13	13	8.5	*24	13	18	72	236	160	42	18	12
25	13	13	8.8	19	13	18	66	214	141	40	18	12
26	13	12	8.8	17	16	17	62	199	126	39	18	12
27	13	12	8.8	15	22	17	62	194	124	38	18	12
28	12	*13	8.8	14	21	16	59	202	125	38	17	12
29	12	13	8.8	13	-	14	53	194	133	36	17	12
30	12	12	9.1	a12	-	14	48	209	133	35	17	12
31	12	-	9.1	a11	-	14	-	214	-	34	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	330.5	16	8.2	10.7	656
November	338.4	13	9.8	11.3	671
December	285.5	12	8.0	9.21	566
Calendar year 1949	10,886.2	208	7.4	29.8	21,600
January	397.8	30	7.0	12.8	789
February	345.1	22	9.0	12.3	684
March	572	29	14	18.5	1,130
April	1,534	85	16	51.1	3,040
May	3,789	236	38	122	7,520
June	4,918	217	124	164	9,750
July	2,151	134	34	69.4	4,270
August	723	33	16	23.3	1,430
September	404	16	12	13.5	801
Water year 1949-50	15,788.3	236	7.0	43.3	31,310

Peak discharge (base, 150 sec.-ft.).--May 24 (8:15 a.m.) 250 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather record and records for stations on nearby streams.
b Stage-discharge relation affected by ice.

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.

Drainage area.--203 square miles.

Records available.--October 1938 to September 1950 in reports of Geological Survey. January 1936 to October 1939 (fragmentary) in reports of Little Bear River water commissioner.

Average discharge.--12 years (1938-50), 84.3 second-feet.

Extremes.--Maximum discharge during year, 763 second-feet May 18 (gage height, 3.41 feet); minimum, 21 second-feet Aug. 31.
1938-50: Maximum discharge, 926 second-feet Apr. 19, 1946 (gage height, 5.15 feet); minimum, 4 second-feet Aug. 14, 1940.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	53	*58	a58	b80	110	145	299	385	60	28	22
2	37	53	57	a62	b75	108	211	307	338	58	27	23
3	38	53	57	a62	b74	117	211	327	299	54	26	23
4	39	53	54	a58	b74	137	168	338	260	a54	26	23
5	40	53	56	b54	96	177	157	355	256	a53	30	24
6	40	54	56	b54	119	229	224	364	256	a53	27	24
7	47	54	56	b54	162	141	313	321	275	a52	26	24
8	46	59	56	b56	105	115	403	350	266	a52	26	24
9	45	58	56	*61	94	112	364	355	226	a51	25	24
10	48	77	57	58	90	108	271	373	198	51	25	25
11	53	70	53	57	86	103	239	355	184	51	26	31
12	56	63	53	b57	84	97	257	367	182	49	26	31
13	59	61	54	57	81	91	315	421	186	47	26	29
14	57	63	56	56	81	94	385	482	174	45	28	29
15	56	68	b57	b55	79	90	358	536	164	45	27	33
16	57	66	57	b55	81	90	427	576	157	42	26	37
17	54	66	57	64	81	122	503	595	146	41	26	35
18	71	64	58	141	84	177	512	696	137	38	24	34
19	63	63	58	179	84	147	467	604	130	34	23	33
20	64	63	56	131	92	196	482	536	123	37	23	34
21	62	62	54	112	92	133	533	524	110	35	23	34
22	61	61	56	133	86	130	586	536	108	33	23	36
23	59	61	57	214	86	126	576	559	105	33	23	38
24	59	62	57	204	92	119	497	552	105	30	22	38
25	58	61	56	124	114	177	436	518	97	28	22	37
26	56	61	54	112	*131	141	412	452	82	26	23	41
27	57	58	56	103	139	124	412	415	77	27	23	43
28	57	59	56	103	128	115	403	418	70	28	23	41
29	56	59	a56	94	-	108	361	406	68	31	23	43
30	56	59	a56	b90	-	114	321	391	60	28	22	56
31	53	-	a56	86	-	117	-	397	-	29	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,645	71	37	53.1	3,260
November	1,817	77	53	60.6	3,600
December	1,736	58	53	56.0	3,440
Calendar year 1949	38,005	696	18	104	75,370
January	2,804	214	54	90.5	5,560
February	2,670	162	74	95.4	5,300
March	3,965	229	90	128	7,860
April	10,949	586	145	365	21,720
May	13,725	696	299	443	27,220
June	5,224	385	60	174	10,360
July	1,295	60	26	41.8	2,570
August	770	30	22	24.8	1,530
September	969	56	22	32.3	1,920
Water year 1949-50	47,569	696	22	130	94,340

Peak discharge (base, 400 sec.-ft.).--Apr. 23 (12:30 s.m.) 682 sec.-ft.; May 18 (9:15 a.m.) 763 sec.-ft.

* Winter discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

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 and 1 mile southwest of Hyrum. Datum of gage is at mean sea level.

Drainage area.--220 square miles.

Records available.--October 1938 to September 1950.

Extremes.--Maximum contents observed during year, 15,660 acre-feet May 17 (elevation, 4,672.8 feet); minimum observed, 5,150 acre-feet Oct. 2 (elevation, 4,648.0 feet).
1938-50: Maximum contents observed, that of May 17, 1950; minimum, 1,130 acre-feet 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 between elevations 4,629.6 feet (sill of outlet canal) and 4,672 feet (top of spillway gates). Dead storage, 3,405 acre-feet (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.

Cooperation.--Capacity table furnished by Bureau of Reclamation.

Revisions (water years).--W 1060: 1946(m).

Contents, in acre-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	7,900	10,260	-	-	10,610	10,570	-	-	-	11,490	8,180
2	5,150	-	-	10,310	-	-	-	-	-	14,530	-	-
3	-	-	-	-	-	-	-	-	-	14,430	11,400	-
4	-	-	-	-	-	-	-	-	15,470	14,340	-	-
5	-	-	-	-	-	-	-	-	-	-	-	7,780
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	13,780	10,870	7,540
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	10,440	-	-	-	-	-	10,790	7,380
11	-	9,080	-	-	-	-	-	-	-	-	-	-
12	5,430	-	-	-	-	-	-	15,570	-	13,220	-	-
13	-	-	-	-	-	-	10,310	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	13,170	10,140	-
15	-	-	-	-	-	-	11,580	-	15,420	13,170	9,960	7,260
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	10,310	10,310	-	-	13,780	15,660	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	9,540	7,150
19	6,530	9,920	-	-	-	-	15,470	-	-	12,760	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	10,700	-	-	15,380	-	9,500	-
22	-	-	-	-	-	-	-	-	-	-	-	6,990
23	-	10,260	-	-	-	-	-	-	-	-	9,290	-
24	-	-	-	-	-	-	15,470	-	-	-	-	-
25	-	-	-	-	-	-	-	-	15,280	12,030	-	-
26	-	-	-	-	10,520	-	-	15,570	15,230	-	9,040	6,950
27	-	-	-	-	-	-	-	-	15,190	-	-	-
28	-	-	10,310	-	a10,570	-	-	-	15,140	-	8,580	-
29	7,780	-	-	-	-	-	-	-	15,090	-	-	6,880
30	-	a10,260	-	-	-	-	15,470	-	a14,900	-	8,340	a6,840
31	a7,860	-	a10,310	10,350	-	a10,570	-	15,470	-	11,540	8,260	-

a No gage-height record; contents interpolated.

Monthly elevation and contents, water year October 1949 to September 1950

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	4,647.3	4,900	-
Oct. 31	-	a7,860	+2,960
Nov. 30	-	a10,260	+2,400
Dec. 31	-	a10,310	+50
Calendar year 1949	-	-	+260
Jan. 31	4,661.2	10,350	+40
Feb. 28	-	a10,570	+220
Mar. 31	-	a10,570	0
Apr. 30	4,672.4	15,470	+4,900
May 31	4,672.4	15,470	0
June 30	-	a14,900	-570
July 31	4,663.9	11,540	-3,360
Aug. 31	4,656.2	8,260	-3,280
Sept.30	-	a6,840	-1,420
Water year 1949-50	-	-	+1,940

a No gage-height record; contents interpolated.

Little Bear River near Hyrum, Utah

Location.--Water-stage recorder, lat. 41°38'00", long. 111°53'00", in NE¼ sec. 6, T. 10 N., R. 1 E., 2,000 feet upstream from road bridge, 1½ miles (revised) downstream from Hyrum Dam, and 1½ miles west of Hyrum. Prior to Nov. 9, 1949, at site 1,200 feet downstream, at different datum.

Drainage area.--222 square miles.

Records available.--October 1938 to September 1950.

Average discharge.--12 years, 60.9 second-feet.

Extremes.--Maximum discharge during year, 822 second-feet May 16 (gage height, 4.34 feet); minimum not determined, occurred during period of no gage-height record.
1938-50: Maximum discharge, 885 second-feet Apr. 20, 1946 (gage height, 4.55 feet, site and datum then in use); minimum daily, 0.6 second-foot Nov. 23-25, 1943.

Remarks.--Records good except those for period 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6		66	73	96	138	134	411	323	15	8.0	6.5
2	16		64	79	85	129	163	402	309	16	8.7	5.6
3	16		64	80	78	128	190	293	260	15	9.8	5.0
4	15		63	73	80	132	186	241	137	15	9.0	4.5
5	15	1.5	62	70	90	156	177	245	86	16	9.4	6.2
6	13		61	70	101	214	181	250	103	17	9.8	5.0
7	3.0		61	70	134	200	229	252	120	14	10	5.9
8	3.1		61	72	137	166	293	258	143	12	9.4	7.1
9	2.8	1.4	62	80	122	146	391	270	145	8.7	9.4	7.4
10	3.0	1.9	72	81	110	138	373	301	132	9.0	8.7	8.0
11	2.6	1.8	69	79	105	130	394	339	126	9.0	8.4	8.7
12	2.8	1.6	64	78	98	122	292	429	119	9.0	9.0	7.7
13		1.6	62	76	90	112	85	429	116	12	9.8	5.9
14	2.5	4.0	62	76	88	109	48	414	113	11	8.7	4.5
15		4.0	62	75	85	106	33	535	109	10	8.0	3.5
16		4.2	64	76	84	103	78	721	97	9.0	9.8	3.5
17		3.8	68	84	84	109	84	650	88	9.4	10	3.0
18	2.0	3.8	72	113	84	148	93	469	78	10	7.4	2.2
19		4.5	76	173	85	160	459	484	44	8.7	5.3	2.0
20		8.4	76	179	89	184	551	506	22	9.8	4.5	4.5
21		25	73	166	94	182	432	506	28	10	4.2	13
22		41	72	161	93	168	463	506	24	10	3.2	12
23	1.8	52	74	190	92	160	522	544	21	10	5.9	8.0
24		58	76	243	93	153	650	606	20	9.0	11	9.4
25		63	75	210	101	158	522	500	18	10	10	11
26		63	74	165	120	170	453	379	15	9.0	7.7	7.1
27		68	73	141	137	161	447	288	14	12	7.4	6.8
28	1.6	68	73	130	148	148	441	301	14	10	6.8	6.8
29		67	73	119	-	135	432	323	14	9.4	7.1	6.5
30		67	73	107	-	129	426	328	15	8.4	6.8	6.5
31		-	73	102	-	130	-	331	-	8.0	7.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	133.0	16	-	4.29	264
November	625.0	68	-	20.8	1,240
December	2,120	76	61	68.4	4,200
Calendar year 1949	30,309	698	-	83.0	60,110
January	3,491	243	70	113	6,920
February	2,803	148	84	100	5,560
March	4,524	214	103	146	8,970
April	9,222	650	33	307	18,290
May	12,511	721	241	404	24,820
June	2,853	323	14	95.1	5,660
July	341.4	17	8.0	11.0	677
August	250.3	11	3.2	8.07	496
September	193.8	13	2.0	6.46	384
Water year 1949-50	39,067.5	721	-	107	77,480

Note.--No gage-height record Oct. 13 to Nov. 8; discharge computed on basis of 1 discharge measurement, engineer's notes, and Water Commissioner's notes of no gate changes made 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.
Drainage area.--50 square miles.
Records available.--January 1938 to December 1950 (discontinued). April 1927 to September 1930 at site 2 miles downstream, records not equivalent (includes Pole Creek).
Average discharge.--11 years (1939-50), 37.3 second-feet.
Extremes.--Maximum discharge during period October 1949 to December 1950, 539 second-feet Apr. 22 (gage height, 4.69 feet); minimum, 9.4 second-feet Jan. 4.
1938-50: Maximum discharge, 960 second-feet Apr. 18, 1946 (gage height, 5.30 feet); minimum, 5.0 second-feet Feb. 14, 1949.
Remarks.--Records good except those for periods of no gage-height record, which are fair. No diversion above station.

Discharge, in second-feet, 1949-50

1949-50

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	14	13	12	18	29	40	151	169	42	26	16
2	14	14	12	12	17	29	55	151	159	40	26	16
3	14	14	12	11	17	28	65	148	146	39	26	16
4	14	14	12	9.8	17	29	61	141	132	38	26	16
5	14	14	12	12	19	33	55	138	120	37	25	16
6	14	14	12	12	21	41	59	138	118	36	25	16
7	15	14	12	12	23	39	92	134	122	36	23	16
8	14	14	12	12	22	35	151	136	122	36	22	16
9	14	14	12	12	21	34	148	136	109	33	21	16
10	14	16	13	12	20	32	109	146	96	37	21	16
11	14	16	12	12	19	31	94	161	91	35	21	17
12	14	14	12	12	18	28	101	196	91	33	21	17
13	15	14	12	12	18	27	138	256	87	31	21	16
14	15	14	12	12	18	26	169	314	84	30	20	16
15	14	14	12	11	18	26	175	356	81	29	19	16
16	14	14	12	11	18	25	242	368	78	29	20	16
17	14	13	12	11	19	26	318	373	74	29	19	16
18	17	13	12	15	19	33	314	403	69	29	19	16
19	16	13	12	30	19	35	283	335	66	28	19	16
20	16	13	12	25	20	38	390	306	63	28	19	16
21	15	13	12	20	19	38	368	294	65	28	19	16
22	15	13	12	25	19	38	399	286	62	28	19	16
23	15	13	12	38	19	38	386	306	61	28	19	16
24	14	13	12	36	19	37	294	294	59	28	18	15
25	14	13	12	25	20	38	246	267	55	28	18	15
26	15	13	12	22	23	38	239	236	51	28	18	14
27	15	13	12	21	26	37	236	222	49	27	18	14
28	15	13	12	20	29	35	206	216	47	28	18	14
29	15	13	12	19	-	33	175	206	45	28	17	14
30	14	13	12	19	-	33	159	187	43	27	17	16
31	14	-	12	18	-	34	-	184	-	27	17	-

Peak discharge (base, 130 sec.-ft.).--Apr. 22 (8 p.m.) 539 sec.-ft.; May 16 (9:30 p.m.) 448 sec.-ft.
Note.--No gage-height record Jan. 13 to Feb. 22; discharge computed on basis of weather records and records for stations on nearby streams.

1950

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

Monthly discharge, in second-feet, 1949-50

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1949	451	17	14	14.5	895
November	410	16	13	13.7	813
December	374	13	12	12.1	742
Calendar year 1949	16,012	345	9	43.9	31,760
January 1950	530.8	38	9.8	17.1	1,050
February	555	29	17	19.8	1,100
March	1,023	41	25	33.0	2,030
April	5,767	399	40	192	11,440
May	7,197	403	134	232	14,280
June	2,614	169	43	87.1	5,180
July	980	42	27	31.6	1,940
August	637	26	17	20.5	1,260
September	472	17	14	15.7	936
Water year 1949-50	21,010.8	403	9.8	57.6	41,670
October 1950	482	16	15	15.5	956
November	513	29	14	17.1	1,020
December	556	21	16	17.9	1,100
Calendar year 1950	21,326.8	403	9.8	58.4	42,290

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 1950. 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.--37 years (1913-50), 110 second-feet.

Extremes.--Maximum discharge during year, 1,260 second-feet May 31 (gage height, 3.86 feet); minimum, 9 second-feet Apr. 6.
1913-50: 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 by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. Eleven discharge measurements made by Geological Survey in addition to those made by power company.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	13	11	17	18	33	22	211	1,070	672	155	19
2	11	12	10	24	16	27	33	204	1,080	666	139	17
3	11	26	11	20	15	35	28	191	881	636	128	18
4	11	18	11	h13	36	35	11	173	838	608	114	15
5	11	18	11	h12	32	32	10	164	856	584	104	11
6	11	15	11	13	25	67	10	155	925	552	108	10
7	12	11	11	16	22	63	26	150	1,030	543	106	10
8	11	11	11	19	21	54	h35	150	931	520	104	10
9	11	11	11	22	17	51	h85	153	h855	498	111	10
10	16	12	11	16	21	43	h50	153	h740	494	99	h15
11	25	11	11	15	20	38	39	158	672	494	97	h20
12	11	11	11	13	16	32	51	188	729	459	97	h20
13	12	11	11	15	14	36	106	h250	802	428	81	19
14	43	11	11	18	14	36	131	h355	844	389	71	h18
15	32	11	11	14	17	33	108	476	868	364	56	h26
16	11	11	11	15	16	27	182	530	938	335	48	h20
17	12	11	11	22	15	31	385	612	951	307	39	h20
18	21	11	12	56	14	53	437	826	958	287	33	h18
19	25	11	12	49	14	30	406	808	938	261	28	h19
20	15	11	12	36	17	28	494	697	918	246	26	h16
21	12	11	17	30	20	35	494	735	925	218	24	h16
22	11	11	27	40	20	32	415	820	925	198	22	15
23	12	11	20	45	18	38	467	951	912	188	25	15
24	12	12	20	61	20	33	360	1,180	893	176	22	20
25	11	12	18	38	25	31	299	1,130	844	167	22	14
26	12	12	16	25	24	14	261	1,020	762	164	19	14
27	11	12	22	22	30	16	284	1,030	724	155	18	15
28	11	12	21	30	36	14	295	1,070	702	188	20	16
29	14	12	19	27	-	14	257	1,130	692	179	24	31
30	12	11	20	17	-	14	221	1,140	682	176	22	39
31	12	-	18	18	-	16	-	1,100	-	167	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	454	43	11	14.6	900
November	373	26	11	12.4	740
December	440	27	10	14.2	873
Calendar year 1949	35,001	796	10	95.9	69,430
January	778	61	12	25.1	1,540
February	573	36	14	20.5	1,140
March	1,041	67	14	33.6	2,060
April	6,002	494	10	200	11,900
May	17,910	1,180	150	578	35,520
June	25,885	1,080	672	863	51,340
July	11,319	672	155	365	22,450
August	1,982	155	18	63.9	3,930
September	526	39	10	17.5	1,040
Water year 1949-50	67,283	1,180	10	184	133,400

h Computed from twice-daily staff-gage readings.

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 1950.

Average discharge.--37 years, 107 second-feet.

Extremes.--Maximum daily discharge during year, 196 second-feet Apr. 26, 27, 29, May 8-11; minimum daily discharge, 1 second-foot Apr. 17.
1913-50: Maximum daily discharge, 198 second-feet Apr. 28-30, 1947; no flow for periods during several years.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	137	112	95	95	96	122	194	194	187	187	189
2	145	127	107	95	88	96	146	194	192	191	187	189
3	143	h114	108	95	80	96	173	194	192	191	187	189
4	141	124	108	89	92	96	156	194	192	189	186	186
5	144	124	106	86	96	96	160	194	192	187	187	189
6	146	124	107	90	96	96	165	194	192	187	187	187
7	152	124	107	94	96	96	184	194	194	187	187	186
8	148	123	104	95	97	96	189	196	191	187	187	186
9	148	123	107	95	96	96	191	196	191	187	181	184
10	h146	126	113	96	95	96	186	196	189	187	182	186
11	h129	123	109	96	95	96	184	196	191	187	191	187
12	143	117	102	92	95	96	186	194	189	187	191	187
13	146	115	98	94	95	96	189	194	173	187	191	186
14	h112	115	102	95	94	96	186	194	189	187	191	184
15	h123	114	98	95	96	96	186	192	191	186	191	182
16	141	112	104	90	96	95	187	189	191	187	191	187
17	143	112	106	95	96	95	h50	194	191	187	191	191
18	152	112	106	96	96	95	h39	194	191	186	189	189
19	148	110	104	97	96	112	h49	194	191	186	189	187
20	150	112	106	97	96	107	1	194	191	186	189	189
21	148	110	96	97	96	102	h59	194	191	186	189	184
22	146	107	95	97	96	102	189	194	189	186	189	186
23	143	110	95	97	96	102	187	191	189	186	189	186
24	143	119	95	97	96	102	187	192	189	186	191	187
25	139	118	94	97	96	115	189	191	187	186	191	187
26	139	113	94	97	96	128	196	191	187	186	191	186
27	139	109	96	98	96	126	196	191	187	186	191	187
28	135	108	95	98	96	124	194	191	189	178	191	187
29	137	115	95	97	-	122	196	191	189	187	191	187
30	141	114	95	97	-	120	194	192	189	187	191	173
31	146	-	95	95	-	122	-	192	-	187	191	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,402	152	112	142	8,730
November	3,511	137	107	117	6,960
December	3,159	113	94	102	6,270
Calendar year 1949	46,468	187	2	127	92,180
January	2,944	98	86	95.0	5,840
February	2,654	97	80	94.8	5,260
March	3,209	128	95	104	6,360
April	4,716	196	1	157	9,350
May	5,991	196	189	193	11,880
June	5,693	194	173	190	11,290
July	5,787	191	178	187	11,480
August	5,857	191	181	189	11,620
September	5,590	191	173	186	11,090
Water year 1949-50	53,513	196	1	147	106,100

h Computed from hourly staff-gage readings.

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 1950.

Average discharge.--27 years (1923-50), 28.9 second-feet.

Extremes.--Maximum daily discharge during year, 124 second-feet June 6; no flow Apr. 20. 1906, 1924-50: Maximum daily discharge, 136 second-feet May 30, 31, 1930; no flow at times in most years.

Remarks.--Records good except those below 10 second-feet, which are fair. No diversion 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a15	11	5.5	4.2	b3.6	6.7	2.4	13	103	111	57	55
2	a15	9.2	4.8	4.2	b3.0	6.3	2.4	13	113	108	67	53
3	a15	5.9	4.5	4.5	b3.0	8.0	2.4	13	114	108	70	51
4	a15	3.9	4.5	4.2	3.9	9.8	3.0	13	112	108	82	51
5	a15	3.6	4.5	4.2	3.6	14	3.6	12	118	109	85	50
6	15	5.9	4.2	4.5	3.3	8.0	3.6	12	124	112	69	49
7	16	8.0	4.5	4.8	3.0	2.7	4.2	12	116	119	65	49
8	15	6.7	4.8	4.8	3.0	2.1	4.8	12	98	115	62	49
9	15	5.9	5.1	4.8	2.7	.2	4.5	7.2	87	106	57	51
10	18	6.3	5.5	4.5	4.8	.2	4.2	1.7	79	96	60	50
11	16	5.5	5.5	*4.5	6.7	.2	3.9	1.5	75	83	49	44
12	14	5.1	5.1	4.5	6.3	.2	3.9	.8	73	78	48	45
13	12	5.1	5.1	5.1	6.3	.2	4.2	.6	87	84	56	44
14	14	5.1	5.1	5.1	5.9	.1	4.5	.2	102	86	64	42
15	14	5.5	5.5	4.8	5.9	*.1	4.5	18	106	88	69	38
16	13	5.9	5.5	4.8	5.9	.2	4.5	27	108	94	74	33
17	14	5.5	5.5	4.8	5.5	.2	2.4	32	106	97	79	17
18	19	5.5	5.9	5.1	5.5	.8	.6	16	111	102	81	26
19	13	5.5	5.9	5.1	a5.5	.4	.2	2.1	100	109	83	35
20	12	5.9	5.5	4.5	a5.5	.8	0	19	107	110	83	35
21	9.8	6.3	5.5	4.2	a5.5	.8	.1	21	109	113	81	34
22	9.8	5.9	5.5	4.2	a5.5	.8	.6	48	106	118	78	35
23	9.2	5.9	4.8	4.2	a5.1	1.9	.4	54	106	115	77	34
24	11	5.9	4.8	3.9	a5.1	3.9	28	31	108	113	78	25
25	14	6.3	4.8	3.6	a5.1	3.9	38	65	103	112	75	30
26	14	5.5	4.8	3.6	a5.1	3.3	54	68	106	104	76	26
27	14	5.9	4.8	3.6	5.1	3.0	48	62	100	104	73	25
28	16	6.7	4.5	3.6	6.7	3.0	26	68	103	80	65	19
29	13	5.9	4.5	3.6	-	3.0	14	63	103	72	60	6.3
30	13	5.5	4.2	3.9	-	2.7	13	64	110	60	59	6.3
31	9.2	-	4.2	3.6	-	2.4	-	83	-	59	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	428.0	19	9.2	13.8	849
November	180.8	11	3.6	6.03	359
December	154.9	5.9	4.2	5.00	307
Calendar year 1949	11,057.8	133	0	30.3	21,920
January	135.0	5.1	3.6	4.35	268
February	136.1	6.7	2.7	4.86	270
March	89.9	14	0.1	2.90	178
April	285.9	54	0	9.53	567
May	853.1	83	0.2	27.5	1,690
June	,093	124	73	103	6,130
July	5,073	119	59	99.1	6,100
August	2,137	85	48	68.9	4,240
September	1,107.6	55	6.3	36.9	2,200
Water year 1949-50	11,674.3	124	0	32.0	23,160

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

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.
Drainage area.--150 square miles.
Records available.--June 1943 to December 1950 (discontinued).
Extremes.--Maximum discharge during period October 1949 to December 1950, 297 second-feet Apr. 13 (gage height, 3.11 feet); minimum, 58 second-feet Jan. 4, Feb. 13.
1943-50: Maximum discharge, 488 second-feet Apr. 18, 1946 (gage height, 4.08 feet); minimum, 36 second-feet Mar. 12, 1948.
Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Some diversions above station for irrigation of meadow lands.

Discharge, in second-feet, 1949-50

1949-50

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	77	71	71	70	89	147	148	230	137	128	113
2	81	76	71	71	b69	92	164	153	221	134	128	111
3	81	76	71	66	b69	101	124	158	205	132	128	111
4	80	76	70	63	68	111	123	158	200	132	129	111
5	80	76	71	66	71	131	128	159	200	131	129	111
6	80	75	71	70	76	117	185	171	207	129	129	111
7	83	76	71	70	81	97	234	161	216	129	126	111
8	81	76	71	71	77	91	230	161	205	132	124	110
9	81	76	71	72	74	91	178	163	190	131	124	110
10	81	81	72	70	74	89	166	158	183	135	123	108
11	79	77	70	68	72	84	156	158	181	134	124	108
12	79	76	64	66	70	80	178	168	180	131	123	110
13	80	76	68	67	70	77	223	185	180	131	123	111
14	79	75	68	67	68	80	200	205	180	131	122	110
15	79	75	66	66	68	80	212	225	178	129	122	110
16	79	75	71	68	68	79	223	232	173	129	120	108
17	80	74	71	72	70	101	248	244	175	129	117	107
18	86	74	71	89	70	100	248	270	171	129	118	107
19	81	75	71	92	71	106	221	246	170	128	117	107
20	80	74	71	88	76	104	226	232	164	131	116	106
21	80	74	71	84	72	99	243	235	159	129	118	106
22	79	74	71	92	71	101	248	244	158	131	117	106
23	79	74	71	126	71	101	248	255	156	129	118	108
24	79	75	74	118	77	100	217	259	155	128	117	108
25	79	a75	70	97	86	104	193	243	153	129	117	107
26	77	a74	71	85	95	99	185	232	150	128	117	108
27	77	a73	72	85	103	95	186	234	145	129	116	107
28	77	a72	71	84	96	91	183	235	143	134	116	107
29	77	a72	71	76	-	93	158	232	140	132	116	107
30	77	a71	71	74	-	99	148	237	139	129	116	110
31	77	-	71	71	-	103	-	234	-	129	116	-

Peak discharge (base, 150 sec.-ft.).--Apr. 13 (12 m.) 297 sec.-ft.; May 18 (8 a.m.) 280 sec.-ft.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.

1950

Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.
1	108	100	95	9	108	96	100	17	104	96	96	25	101	97	91
2	107	103	93	10	107	93	100	18	103	107	96	26	101	97	92
3	108	97	96	11	107	96	100	19	103	108	97	27	104	96	89
4	108	97	106	12	106	96	101	20	101	110	96	28	100	96	91
5	108	97	97	13	106	95	101	21	101	117	95	29	99	95	91
6	111	96	95	14	106	97	99	22	101	106	92	30	99	95	91
7	110	96	100	15	106	96	99	23	101	101	92	31	100	-	91
8	108	106	100	16	106	95	97	24	101	99	92				

Monthly discharge, in second-feet, 1949-50

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1949	2,471	86	77	79.7	4,900
November	2,250	81	71	75.0	4,460
December	2,185	74	64	70.5	4,330
Calendar year 1949	33,227	209	54	91.0	65,910
January 1950	2,425	126	63	78.2	4,810
February	2,103	103	68	75.1	4,170
March	2,985	131	77	96.3	5,920
April	5,823	248	123	194	11,550
May	6,395	270	148	206	12,680
June	5,307	230	139	177	10,530
July	4,051	137	128	131	8,040
August	3,756	129	116	121	7,450
September	3,265	113	106	109	6,480
Water year 1949-50	43,016	270	63	118	85,320
October 1950	3,239	111	99	104	6,420
November	2,976	117	93	99.2	5,900
December	2,971	106	89	95.8	5,890
Calendar year 1950	45,296	270	63	124	89,840

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, 3¼ 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 1950.

Average discharge.--36 years (1914-50), 122 second-feet.

Extremes.--Maximum discharge during year, 856 second-feet May 18 (gage height, 5.06 feet); minimum daily, 72 second-feet Jan. 5.
1913-50: 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a103	97	89	84	94	118	144	360	468	223	174	151
2	a104	97	89	85	80	121	194	363	450	218	172	151
3	a105	97	89	84	79	129	199	372	420	216	174	151
4	a106	95	88	73	93	138	170	356	390	209	174	151
5	a106	95	88	72	94	155	168	341	372	212	174	153
6	106	95	88	77	94	162	192	344	375	205	174	153
7	108	95	88	77	102	136	262	334	395	205	174	153
8	107	100	88	80	100	126	332	329	390	205	172	151
9	107	100	89	86	98	124	310	332	360	201	172	151
10	107	104	90	86	97	126	255	332	341	201	172	151
11	106	100	89	88	97	121	238	356	332	203	172	151
12	106	95	88	86	95	115	245	390	324	197	172	153
13	108	94	85	86	93	112	296	452	320	190	172	153
14	106	93	85	88	94	112	358	538	315	188	170	155
15	104	93	86	83	93	107	324	610	308	186	168	155
16	104	90	86	86	92	104	370	645	298	186	166	153
17	104	92	83	92	92	110	438	708	293	184	164	151
18	115	90	88	108	92	136	518	807	286	182	162	150
19	112	90	89	110	94	121	472	693	281	182	160	150
20	108	89	84	107	97	136	498	620	272	180	159	148
21	106	89	84	102	98	124	585	610	264	180	157	146
22	104	88	86	107	97	124	675	622	262	176	157	146
23	102	89	86	139	95	127	744	650	257	178	155	148
24	101	90	88	157	98	124	652	658	255	176	153	150
25	101	89	85	129	107	131	560	632	252	176	153	148
26	101	89	84	112	116	129	512	548	243	176	153	148
27	100	89	85	112	124	126	500	520	241	176	153	144
28	100	89	85	112	124	123	488	520	236	180	155	144
29	100	90	85	104	-	121	408	500	232	182	153	144
30	98	89	85	98	-	123	368	480	229	180	153	148
31	98	-	84	100	-	127	-	488	-	178	153	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,243	115	98	105	6,430
November	2,792	104	88	93.1	5,540
December	2,686	90	83	86.6	5,330
Calendar year 1949	49,769	472	61	136	98,710
January	3,010	157	72	97.1	5,970
February	2,729	124	80	97.5	5,410
March	3,888	162	104	125	7,710
April	11,475	744	144	382	22,760
May	15,510	807	329	500	30,760
June	9,461	468	229	315	18,770
July	5,931	223	176	191	11,770
August	5,092	174	153	164	10,100
September	4,501	155	144	150	8,930
Water year 1949-50	70,318	807	72	193	139,500

Peak discharge (base, 140 sec.-ft.).--Apr. 23 (2 a.m.) 825 sec.-ft.; May 18 (11 a.m.) 856 sec.-ft.
a No gage-height record; discharge computed on basis of weather records and records for station at Hardware Ranch.

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 1950.

Extremes.--Maximum discharge observed during year, 340 second-feet Feb. 27 (gage height, 5.94 feet); minimum observed, 23 second-feet Aug. 24-31, Sept. 3, 16-22; minimum gage height observed, 2.08 feet July 4-8.
1938-50: Maximum discharge, 650 second-feet 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, 1.92 feet Aug. 7, 1947.

Remarks.--Records good except those below about 30 second-feet, which are fair. Gage read once daily. Flow regulated by several small reservoirs above station. Many diversions above station for irrigation.

Revisions (water years).--W 1060: 1943(M).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	52	66	52	66	271	109	117	53	32	29	24
2	28	53	68	54	62	232	106	113	52	31	29	24
3	28	55	70	46	57	207	103	128	50	31	30	23
4	27	57	66	52	55	209	99	150	50	29	30	24
5	27	60	66	50	56	209	105	167	51	29	29	24
6	27	60	66	48	68	232	102	146	48	29	28	25
7	27	59	66	49	106	228	100	125	45	28	28	24
8	32	60	70	49	115	156	99	149	59	28	27	25
9	33	61	67	51	109	142	112	207	62	29	27	24
10	36	71	70	50	97	145	159	205	60	31	27	24
11	37	106	54	51	91	146	156	172	55	35	27	24
12	38	100	55	44	89	119	155	138	46	35	27	24
13	38	83	57	48	87	119	133	126	45	32	27	24
14	40	78	54	50	83	125	120	115	40	31	26	24
15	39	73	54	38	85	125	118	109	39	30	26	24
16	39	68	53	45	100	121	114	106	37	29	26	23
17	39	66	54	46	108	123	109	101	36	29	26	23
18	54	70	50	54	123	139	103	100	35	29	24	23
19	67	73	53	69	128	132	90	99	35	28	24	23
20	68	69	53	96	138	156	96	102	36	28	24	23
21	70	67	54	115	149	147	97	108	36	28	24	23
22	68	66	54	155	159	133	99	109	37	28	24	23
23	66	68	56	273	169	125	95	110	36	28	24	25
24	66	71	56	313	176	125	90	93	35	28	23	28
25	62	71	54	303	207	145	90	76	33	30	23	30
26	62	71	56	256	273	219	90	65	36	30	23	30
27	58	71	58	170	340	239	90	66	36	30	23	30
28	58	71	59	97	317	185	142	66	34	31	23	27
29	56	67	57	84	-	132	171	61	32	30	23	30
30	52	68	57	79	-	120	145	62	32	30	23	35
31	52	-	59	70	-	115	-	54	-	29	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,420	70	26	45.8	2,820
November	2,065	106	52	68.8	4,100
December	1,832	70	50	59.1	3,630
Calendar year 1949	22,972	375	20	62.9	45,570
January	2,957	313	38	95.4	5,870
February	3,613	340	55	129	7,170
March	5,021	271	115	162	9,960
April	3,397	171	90	113	6,740
May	3,545	207	54	114	7,030
June	1,281	60	32	42.7	2,540
July	925	35	28	29.8	1,830
August	797	30	23	25.7	1,580
September	757	35	23	25.2	1,500
Water year 1949-50	27,610	340	23	75.6	54,770

Little Malad River above Elkhorn Reservoir, near Malad City, Idaho

Location.--Water-stage recorder and Cipolletti 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 City.

Records available.--August 1911 to August 1913, October 1931 to September 1932, November 1940 to September 1950.

Average discharge.--11 years (1911-12, 1931-32, 1941-50), 17.7 second-feet.

Extremes.--Maximum discharge during year, 84 second-feet Feb. 25 (gage height, 1.75 feet); minimum, 12 second-feet Dec. 12 (gage height, 0.49 foot).
1911-13, 1931-32, 1940-50: Maximum discharge, 270 second-feet Feb. 22, 1948 (gage height, 3.26 feet), from rating curve extended above 50 second-feet on basis of computation of flood flow by weir formula; minimum, 6.8 second-feet Aug. 19, 1948 (gage height, 0.31 foot).

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

Discharge, in second-feet, water year October 1949 to September 1950

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

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	500	18	14	16.1	992
November	494	18	16	16.5	980
December	483	17	13	15.6	958
Calendar year 1949	6,514	35	13	17.8	12,920
January	516	27	14	16.6	1,020
February	588	45	15	21.0	1,170
March	791	45	19	25.5	1,570
April	873	44	23	29.1	1,730
May	811	29	23	26.2	1,610
June	666	26	18	22.2	1,320
July	571	22	18	18.4	1,130
August	523	18	16	16.9	1,040
September	505	18	16	16.8	1,000
Water year 1949-50	7,321	45	13	20.1	14,520

Elkhorn Reservoir near Malad City, Idaho

Location.--Staff gage, lat. 42°18', long. 112°25', in sec. 7, T. 13 S., R. 35 E., on upstream face of partly completed dam on Little Malad River, 4½ miles downstream from Wright Creek, and 11½ miles northwest of Malad City. Prior to Oct. 1, 1949, staff gage at site 50 feet upstream at same datum.

Records available.--December 1940 to September 1950.

Extremes.--Maximum gage height observed during year, 14.20 feet Apr. 14; minimum gage height, below -3.3 feet for long periods.
1940-50: Maximum gage height observed, 17.0 feet Feb. 22 or 23, 1948, from high-water mark; minimum gage height, below -3.3 feet in July 1944, for long periods in 1947, in June 1948, and for long periods in 1949 and 1950.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	-	-	-	(††)	-	-
2	-	-	(†)	-	-	-	-	-	-	-	-	-
3	-	-	-	-	9.69	-	-	-	-	-	-	-
4	-	(†)	-	-	-	12.01	-	-	-	-	-	3.70
5	-	-	-	-	-	-	-	8.62	(††)	-	-	-
6	-	-	-	9.29	-	-	-	-	-	-	3.90	-
7	(†)	-	-	-	-	-	13.60	-	-	-	-	-
8	-	-	-	-	10.12	-	-	-	6.03	(††)	-	-
9	-	-	-	-	10.11	-	-	-	(††)	-	-	-
10	-	-	-	-	10.17	-	-	-	-	-	-	4.06
11	-	(†)	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	7.84	-	-	-	-
13	-	-	-	9.23	-	-	-	-	-	-	4.10	-
14	(†)	-	-	-	-	-	14.20	-	-	4.21	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	4.22	-	4.56
17	-	-	-	-	-	-	-	-	(††)	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	(†)	-	-	-	-	-	7.91	-	-	-	-
20	-	-	-	-	9.93	-	-	-	-	-	-	-
21	-	-	-	-	-	-	13.15	-	-	-	4.30	-
22	(†)	-	-	9.49	-	-	-	-	-	-	4.33	-
23	-	-	-	-	-	-	-	-	-	3.70	-	-
24	-	-	-	-	10.01	13.01	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	(††)	-	-	3.70
26	-	(†)	-	-	-	-	-	8.06	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	3.70	-
28	-	-	-	9.73	-	-	11.04	-	-	-	-	-
29	(†)	-	-	-	-	-	-	-	-	-	-	4.64
30	-	-	-	-	-	-	-	-	-	3.84	-	-
31	-	-	9.29	-	-	12.58	-	-	-	-	-	-

† Below stage of -3.3 feet on this day.
†† Below stage of 6.6 feet on this day.

Little Malad River below Elkhorn Reservoir, near Malad City, 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 City.

Records available.--December 1940 to September 1950.

Extremes.--Maximum discharge during year, 52 second-feet July 8 (gage height, 2.26 feet); minimum, 0.2 second-foot Mar. 19-28, Apr. 6-15 (gage height, 0.60 foot).
1940-50: Maximum discharge, 113 second-feet Aug. 23, 1946, from computation of flow over weir 50 feet upstream; maximum gage height, 3.63 feet Jan. 24, 1949 (ice jam); no flow at times during most years.

Remarks.--Records good except 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.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	14	13	4.2	a2.3	1.6	1.8	23	24	17	17	14
2	15	14	13	4.2	a2.3	.3	1.9	23	27	18	17	14
3	14	14	13	a4.2	2.3	.3	1.7	23	26	20	17	14
4	14	16	13	a4.2	2.3	.3	.7	22	26	20	17	14
5	14	16	14	a4.2	2.1	.3	.3	21	22	20	17	14
6	15	15	13	4.2	2.1	.3	.2	22	22	19	17	14
7	15	15	9.7	4.2	2.1	.3	.2	22	24	20	16	14
8	15	15	5.2	4.2	2.3	.3	.2	21	25	22	16	15
9	15	16	5.2	4.2	2.3	.3	.2	21	25	22	16	15
10	15	18	4.4	4.2	2.3	.3	.2	21	24	20	15	15
11	15	16	2.6	4.2	2.4	.3	.2	21	22	20	15	16
12	15	16	2.6	a4.2	2.4	.3	.2	21	21	18	16	16
13	15	16	a2.6	4.2	2.4	.3	.2	21	22	18	17	15
14	15	16	a2.6	4.2	2.4	.3	.2	20	22	18	17	16
15	15	16	a2.7	4.2	2.4	.3	.4	20	20	18	16	16
16	15	16	2.8	4.2	2.3	.3	2.8	20	18	18	16	16
17	16	16	4.4	a4.2	2.3	.3	4.0	20	18	18	15	16
18	16	16	6.5	a4.2	2.3	.3	13	21	18	17	15	16
19	15	16	6.5	a4.0	2.3	.2	17	21	18	17	15	16
20	15	16	6.5	a3.5	2.3	.2	17	21	18	17	15	15
21	15	16	6.5	a3.0	2.3	.2	17	21	17	17	15	15
22	15	16	6.5	2.4	2.3	.2	16	21	16	17	15	15
23	14	16	6.8	2.4	2.3	.2	16	22	16	17	15	16
24	14	17	6.8	2.4	2.3	.2	16	22	15	17	15	16
25	14	17	6.8	2.4	2.1	.2	16	22	18	17	15	16
26	14	14	a6.8	2.4	2.3	.2	22	22	21	18	15	15
27	15	13	a6.0	a2.4	2.3	.2	25	22	18	18	15	15
28	15	14	a5.5	2.4	2.3	.5	25	22	18	17	15	15
29	14	13	a5.0	a2.4	-	1.7	25	21	18	17	15	16
30	14	13	a4.5	a2.4	-	1.7	24	21	18	17	15	16
31	14	-	4.2	a2.4	-	1.8	22	22	-	17	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	457	16	14	14.7	906
November	462	18	13	15.4	916
December	208.7	14	2.6	6.73	414
Calendar year 1949	4,783.7	37	0	13.1	9,490
January	110.1	4.2	2.4	3.55	218
February	64.1	2.4	2.1	2.29	127
March	14.2	1.8	.2	.46	28
April	264.4	25	.2	8.81	524
May	663	23	20	21.4	1,320
June	617	27	15	20.6	1,220
July	566	22	17	18.3	1,120
August	486	17	14	15.7	964
September	456	16	14	15.2	904
Water year 1949-50	4,368.5	27	.2	12.0	8,660

a No gage-height record; discharge computed on basis of weather records and records for Elkhorn Reservoir and station above Elkhorn Reservoir.

Little Malad River below Sand Ridge dam site, near Malad City, 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 City, and 9 miles downstream from Elkhorn Reservoir.

Records available.--October 1945 to September 1950.

Extremes.--Maximum discharge during year, 14 second-feet Nov. 27-29, Dec. 1-3, 5-7; maximum gage height, 2.91 feet Nov. 28, Dec. 7; minimum daily discharge, 0.2 second-foot Sept. 14-30.

1945-50: Maximum discharge, 240 second-feet Feb. 22, 1948 (gage height, 9.6 feet, from floodmark), by submerged orifice method; minimum discharge recorded, 0.1 second-foot Sept. 7, 1947; minimum gage height observed, 1.52 feet Aug. 26, Sept. 9, 16, 23, 1949.

Remarks.--Records fair except those for periods of ice effect or no gage-height record and those below 1 second-foot, which are poor. Flow practically all diverted above station during irrigation season; large diversions during other periods.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	5.2	14	b2.0	b1.7	2.6	*1.4	1.9	a1.6	1.1	a0.5	a0.3
2	a.4	6.4	13	2.0	b1.7	2.4	1.6	2.0	h1.7	1.2	a.5	a.3
3	a.4	*6.4	13	b1.9	b1.7	2.9	2.6	1.8	a1.6	a1.2	a.5	h.3
4	a.4	6.2	13	b1.9	b1.7	3.0	2.5	1.8	a1.5	a1.2	a.5	a.3
5	a.3	6.5	13	b1.9	b1.7	4.6	2.2	1.8	a1.4	a1.2	a.5	a.3
6	a.3	6.5	14	b1.9	b1.7	5.6	2.0	1.8	a1.3	a1.1	.6	a.3
7	h.3	6.6	14	b1.9	1.7	2.5	2.0	1.8	a1.3	a1.1	.5	a.3
8	.5	6.9	7.5	b1.8	1.7	2.5	1.4	2.0	1.3	a1.1	.6	a.3
9	a1.0	7.5	4.6	b1.8	*1.7	2.5	1.5	2.4	1.0	1.0	.6	a.3
10	a2.0	9.0	3.6	1.8	1.5	2.6	1.4	3.3	1.2	1.2	.5	h.3
11	a2.5	9.4	b3.0	1.8	1.5	b2.1	1.4	1.9	1.2	.8	.5	a.3
12	a3.0	8.6	2.8	2.0	1.5	b2.0	1.4	1.8	1.2	.8	.5	a.3
13	a3.5	8.2	b2.6	2.0	1.5	b2.0	1.4	1.7	1.5	.7	.5	a.3
14	3.7	7.5	b2.4	1.9	1.4	2.1	1.4	2.0	1.3	a.6	.5	a.2
15	3.8	7.5	b2.2	1.8	1.6	2.1	1.4	1.6	1.2	a.6	.5	a.2
16	3.9	7.6	*b2.0	b1.8	1.6	2.0	1.4	1.5	1.2	h.6	.6	h.2
17	4.4	7.9	1.7	b1.8	1.6	2.2	1.4	1.6	1.2	a.6	.4	a.2
18	6.1	7.9	1.7	b1.8	1.6	2.4	1.4	1.6	1.2	a.6	.4	a.2
19	5.7	8.2	1.7	b1.8	1.6	2.1	1.4	1.5	1.2	a.6	.4	a.2
20	a5.0	8.3	b1.7	1.9	1.7	2.2	1.5	1.6	1.1	a.6	h.3	a.2
21	4.6	8.6	b1.7	1.9	1.7	1.9	1.7	1.6	1.1	a.6	a.3	a.2
22	4.3	12	b1.7	2.4	1.6	1.8	2.2	1.6	1.1	a.6	a.3	a.2
23	4.3	12	b1.7	2.6	1.7	1.7	2.2	1.6	1.0	a.6	a.4	a.2
24	a4.3	12	1.8	2.5	1.7	2.0	1.9	1.5	1.0	.8	a.4	a.2
25	a4.3	12	b1.8	b2.3	2.0	2.5	2.4	1.5	1.0	.7	.4	h.2
26	a4.3	13	b1.8	b2.2	2.4	2.3	2.1	1.6	1.1	a.6	a.4	a.2
27	a4.7	12	b1.8	b2.1	2.8	2.1	2.0	1.6	1.0	a.6	h.3	a.2
28	4.8	14	b1.8	b2.0	2.6	2.0	2.2	1.6	1.0	.7	a.3	a.2
29	4.9	13	b1.8	b1.9	-	1.8	2.0	a1.6	1.0	.6	a.3	h.2
30	5.2	13	b1.8	b1.8	-	1.4	1.9	a1.6	1.1	h.5	a.3	.2
31	6.0	-	b1.8	b1.8	-	1.4	-	a1.6	-	a.5	a.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	99.4	6.1	0.3	3.21	197
November	269.9	14	5.2	9.00	535
December	151.0	14	1.7	4.87	300
Calendar year 1949	1,182.9	14	.2	3.24	2,350
January	61.0	2.6	1.8	1.97	121
February	48.9	2.8	1.4	1.75	97
March	73.3	5.6	1.4	2.36	145
April	53.3	2.6	1.4	1.78	106
May	54.8	3.3	1.5	1.77	109
June	36.6	1.7	1.0	1.22	73
July	24.7	1.2	.5	.80	49
August	13.6	.6	.3	.44	27
September	7.3	.3	.2	.24	14
Water year 1949-50	893.8	14	.2	2.45	1,770

* Winter-discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Little Malad River below Elkhorn Reservoir and Malad River at Woodruff.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.

Devil Creek above Campbell Creek, near Malad City, 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 City.

Records available.--November 1938 to September 1950.

Average discharge.--11 years (1939-50), 10.4 second-feet.

Extremes.--Maximum discharge during year, 78 second-feet Apr. 7 (gage height, 1.40 feet); minimum, 1.6 second-feet Jan. 13 (gage height, 0.43 foot); minimum daily, 1.8 second-feet Nov. 3-5.

1938-50: Maximum discharge observed, 202 second-feet Apr. 2, 1943 (gage height, 2.10 feet), from rating curve extended above 47 second-feet; minimum recorded, that of Jan. 13, 1950; minimum daily, that of Nov. 3-5, 1949.

Remarks.--Records fair. 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	5.7	8.8	6.8	7.6	15	29	19	22	13	9.2	8.0
2	6.8	1.9	8.8	6.8	7.6	14	49	19	22	13	9.2	8.0
3	7.6	1.8	8.8	5.7	b7.4	13	32	18	22	13	8.8	8.0
4	9.2	1.8	8.8	7.6	7.2	22	28	18	22	13	8.4	8.0
5	9.6	1.8	8.8	7.2	7.2	37	28	17	22	12	8.4	8.0
6	9.2	2.6	8.8	6.4	7.6	42	40	17	20	12	8.8	8.4
7	9.2	10	8.8	6.8	7.6	18	50	17	22	13	8.4	8.4
8	9.6	11	8.8	6.0	8.0	14	40	20	21	12	8.4	8.4
9	9.2	11	8.4	7.2	8.4	13	32	23	20	12	8.4	8.8
10	9.2	12	8.4	6.4	*8.8	12	26	21	19	12	8.0	9.2
11	8.8	9.6	8.8	6.0	8.8	12	26	18	18	12	8.0	9.2
12	8.8	9.6	8.8	6.8	8.4	11	28	17	19	11	8.0	8.8
13	8.8	9.2	8.8	5.7	8.4	10	28	18	18	11	8.0	8.8
14	9.2	9.2	8.8	4.6	7.2	10	26	19	18	11	8.0	8.8
15	9.2	9.2	8.8	8.4	7.2	11	25	20	18	11	8.4	8.8
16	9.2	8.8	8.8	6.8	7.2	12	26	22	17	11	8.0	8.8
17	10	8.8	8.4	7.6	8.0	24	27	22	16	11	8.4	8.8
18	10	8.4	*8.8	9.2	9.2	27	25	26	16	11	8.0	9.2
19	10	6.8	8.4	8.8	9.2	20	23	24	16	11	8.0	9.2
20	9.6	6.8	8.0	9.2	9.6	16	24	23	16	10	8.0	9.2
21	9.2	6.8	8.0	9.6	10	15	24	24	16	10	8.0	9.2
22	9.2	6.8	8.0	11	9.2	15	22	24	16	10	8.0	9.2
23	9.6	7.2	8.0	16	8.8	14	22	25	15	11	8.0	9.2
24	9.6	8.0	8.0	14	11	15	20	26	14	10	8.0	9.2
25	9.6	8.8	7.6	13	17	15	20	25	14	9.6	7.6	9.2
26	9.6	8.8	6.8	9.6	21	14	18	22	14	10	7.6	9.2
27	9.6	8.4	8.8	9.6	20	13	21	22	14	9.6	7.6	9.2
28	9.6	7.2	8.0	8.8	17	12	21	22	14	9.6	7.6	9.2
29	10	7.6	8.0	8.8	-	12	19	22	14	9.6	7.6	9.6
30	11	8.8	7.2	8.4	-	13	18	22	13	9.6	7.6	9.6
31	8.8	-	6.0	8.0	-	18	-	22	-	9.2	7.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	286.6	11	6.8	9.25	568
November	224.4	12	1.8	7.48	445
December	258.0	8.8	6.0	8.32	512
Calendar year 1949	3,814.7	43	1.8	10.5	7,570
January	256.8	16	4.6	8.28	509
February	274.6	21	7.2	9.81	545
March	509	42	10	16.4	1,010
April	817	50	18	27.2	1,620
May	654	26	17	21.1	1,300
June	528	22	13	17.6	1,050
July	343.2	13	9.2	11.1	681
August	252.0	9.2	7.6	8.12	500
September	265.6	9.6	8.0	8.85	527
Water year 1949-50	4,669.2	50	1.8	12.8	9,270

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

Devil Creek above Evans dividers, near Malad City, Idaho

Location.--Water-stage recorder, lat. 42°15', long. 112°13', in sec. 35, T. 13 S., R. 36 E., at Evans Ranch, 900 feet upstream from Evans dividers, 3.1 miles downstream from Campbell Creek, and 3.6 miles northeast of Malad City.

Records available.--December 1940 to December 1943, April 1946 to September 1950.

Extremes.--Maximum discharge recorded during year, 93 second-feet Apr. 7, from rating curve extended above 50 second-feet, but may have been more during period of no gage-height record; maximum gage height, 3.85 feet Jan. 22 (ice jam); minimum discharge, 0.9 second-foot Nov. 7 (gage height, 1.18 feet).
1940-43, 1946-50: Maximum discharge, 254 second-feet Mar. 30, 1943 (gage height, 5.29 feet, present site, datum then in use), from rating curve extended above 60 second-feet; minimum, that of Nov. 7, 1949.

Remarks.--Records fair except those for periods of ice effect or 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	7.0	9.8	7.0	8.5	20	*g34	30	30	15	13	9.8
2	8.2	2.5	9.8	6.3	8.5	20	65	29	29	16	13	9.8
3	8.2	2.2	9.5	2.9	8.0	19	50	28	29	18	12	9.8
4	9.5	*2.1	9.2		8.0	25	40	28	28	17	11	9.5
5	10	1.6	9.5		8.0	42	40	27	28	17	10	9.2
6	10	1.1	9.8		8.5	57	55	27	27	18	10	9.2
7	11	7.5	9.8		8.5	35	70	27	28	18	12	9.2
8	11	9.0	9.8		9.0	20	65	35	28	18	12	9.5
9	11	10	9.5	7.5	9.5	17	50	45	27	15	12	10
10	12	14	8.0		*9.8	15	40	40	27	16	12	10
11	10	12	8.0		10	15	40	g38	29	15	12	8.0
12	10	10			9.5	14	45	37	30	15	12	8.0
13	10	10			9.0	13	45	37	27	16	12	7.2
14	10	10		2.4	7.8	13	40	38	26	16	11	7.8
15	10	10	9.5	7.0	7.8	14	38	38	25	16	9.8	9.0
16	10	9.8		8.0	8.0	18	40	39	21	16	8.2	10
17	12	9.8		8.0	8.5	27	41	40	18	16	9.0	10
18	14	10		9.0	10	35	38	41	23	15	11	9.8
19	13	8.0		10	11	28	35	38	24	15	11	9.8
20	12	7.5		10	12	26	36	37	23	15	11	9.8
21	11	7.8		10	12	21	g36	37	23	15	11	9.8
22	11	7.5		13	11	20	g34	36	21	15	11	9.8
23	11	7.5		18	11	19	33	36	18	10	11	9.8
24	11	8.5		17	13	21	29	36	18	6.1	11	9.5
25	10	10	8.5	15	23	24	29	35	17	11	11	7.8
26	10	9.8		12	28	22	29	34	17	11	11	7.0
27	10	10		11	29	20	34	33	16	13	8.2	7.5
28	10	8.2		10	23	18	34	33	16	15	8.5	6.5
29	10	7.5		10	-	18	30	32	15	15	8.2	8.8
30	11	9.5		9.0		20	30	31	15	14	7.8	11
31	9.5	-		9.0	-	25	-	31	-	14	9.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	325.2	14	8.2	10.5	645
November	240.4	14	1.1	8.01	477
December	279.7	9.8	8.0	9.02	555
Calendar year 1949	4,553.0	66	1.1	12.5	9,020
January	279.6	18	2.4	9.02	555
February	329.9	29	7.8	11.8	654
March	698	57	13	22.5	1,380
April	1,225	70	29	40.8	2,430
May	1,073	45	27	34.6	2,130
June	703	30	15	23.4	1,390
July	462.1	18	6.1	14.9	917
August	332.2	13	7.8	10.7	659
September	272.9	11	6.5	9.10	541
Water year 1949-50	6,221.0	70	1.1	17.0	12,330

* Winter discharge measurement made on this day.
g Computed from graph based on staff-gage readings and fragmentary recorder record.
Note.--Stage-discharge relation affected by ice Dec. 11 to Jan. 1, Jan. 4-13, Jan. 15 to Feb. 13. Fragmentary, doubtful, or no gage-height record Jan. 31 to Feb. 6, Feb. 9, Mar. 7-31, Apr. 2-20, May 3-10; discharge computed on basis of fragmentary gage-height record, weather records, and records for station above Campbell Creek and nearby streams.

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 1950.

Average discharge.--44 years (1906-50), 229 second-feet.

Extremes.--Maximum discharge during year, 2,140 second-feet June 1 (gage height, 4.07 feet); minimum not determined, occurred during period of ice effect.
1904-50: 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.

Revisions (water years).--W 790: 1934.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	78	68			57	64	321	1,830	844	171	118
2	70	78	70			58	72	317	1,710	836	164	118
3	68	78	65			57	72	305	1,210	770	161	114
4	61	76	68			57	68	279	1,060	696	157	112
5	64	76	70			59	68	260	1,200	657	154	112
6	69	74	65			59	78	243	1,580	602	152	111
7	70	73	64			59	101	226	1,620	568	145	111
8	78	76	63		60	61	120	217	1,070	562	141	114
9	82	74	63			59	108	204	838	503	139	114
10	82	79	65			59	95	210	770	472	137	114
11	80	78	64			59	99	230	950	458	139	143
12	84	78				61	114	260	1,250	390	137	122
13	92	78				69	144	309	1,320	369	135	111
14	86	74				68	162	399	1,460	348	132	107
15	82	76				56	144	505	1,490	313	130	105
16	80	73		58	60	56	154	589	1,570	288	128	103
17	82	73			59	59	204	730	1,560	274	124	101
18	106	73			60	60	243	829	1,550	264	120	96
19	108	73			61	59	257	838	1,470	258	132	94
20	97	73			57	58	290	846	1,460	242	139	105
21	93	72	62		*53	59	372	950	1,510	230	135	105
22	86	70			61	59	442	1,120	1,580	215	135	105
23	90	70			56	59	494	1,310	1,370	207	130	124
24	86	76		(*)	53	59	478	1,380	1,470	199	126	116
25	88	73			54	60	447	1,490	1,180	199	122	107
26	88	70			54	59	442	1,320	1,020	194	118	101
27	88	70	(*)		56	58	432	1,330	1,030	196	114	99
28	85	*72			56	58	404	1,480	1,030	196	120	98
29	85	72			-	60	363	1,370	1,000	202	124	94
30	84	66			-	61	334	1,490	957	186	120	94
31	78	-			-	61	-	1,820	-	178	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,562	108	61	82.6	5,080
November	2,222	79	66	74.1	4,410
December	1,965	-	-	63.4	3,900
Calendar year 1949	81,314	1,520	-	223	161,300
January	1,798	-	-	58.0	3,570
February	1,640	-	-	58.6	3,250
March	1,843	69	56	59.4	3,660
April	6,865	494	64	229	13,620
May	23,177	1,820	204	748	45,970
June	39,115	1,830	770	1,304	77,580
July	11,916	844	178	384	23,640
August	4,199	171	114	135	8,330
September	3,268	143	94	109	6,480
Water year 1949-50	100,570	1,830	-	276	199,500

Peak discharge (base, 1,200 sec.-ft.).--June 1 (2 a.m.) 2,140 sec.-ft.; June 7 (4 a.m.) 1,820 sec.-ft.; June 22 (3 a.m.) 2,000 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 12 to Feb. 15.

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., 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 1950.

Average discharge.--23 years, 204 second-feet.

Extremes.--Maximum discharge during year, 1,690 second-feet June 2 (gage height, 3.98 feet); minimum, 67 second-feet Aug. 30 (gage height, -0.08 foot).
1927-50: 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	138	119	109	100	190	316	562	1,580	740	114	77
2	82	138	113	106	90	185	443	598	1,640	670	118	78
3	79	138	122	92	95	185	408	606	1,510	638	118	78
4	76	138	111	80	110	215	270	610	1,250	506	109	77
5	76	132	119	76	145	242	261	574	1,260	462	109	75
6	83	134	117	72	280	264	352	570	1,380	406	102	72
7	106	134	119	77	200	216	472	506	1,550	359	101	75
8	124	146	117	99	175	188	538	502	1,470	359	104	78
9	144	138	117	106	160	181	404	502	1,130	345	99	91
10	161	220	117	108	155	193	307	458	950	331	94	102
11	156	265	104	120	140	170	292	450	965	337	94	148
12	161	179	100	120	180	148	337	483	1,180	271	93	184
13	163	163	95	130	140	126	398	550	1,290	222	96	149
14	150	156	100	115	140	154	443	658	1,380	188	97	145
15	146	152	100	95	140	150	375	830	1,430	170	96	156
16	140	144	128	105	140	148	375	945	1,450	156	94	149
17	142	138	126	130	140	191	468	1,130	1,490	145	96	151
18	188	138	108	175	140	253	534	1,260	1,470	147	91	147
19	310	136	121	170	135	220	522	1,260	1,420	143	85	141
20	256	132	113	160	120	*223	562	1,230	1,380	141	81	143
21	234	128	115	180	*120	208	679	1,240	1,380	121	84	156
22	216	128	115	200	130	220	810	1,340	1,420	120	81	149
23	218	126	120	210	150	223	915	1,420	1,320	120	80	162
24	203	138	120	*190	150	223	905	1,450	1,330	111	75	193
25	193	136	125	120	135	272	795	1,500	1,220	112	75	181
26	174	128	130	130	150	239	775	1,420	1,010	112	73	173
27	163	128	*130	140	200	203	751	1,370	980	118	71	164
28	159	*128	130	150	195	172	746	1,420	950	112	71	164
29	154	126	135	145	-	163	679	1,390	856	121	72	153
30	148	122	130	140	-	186	606	1,360	816	121	72	156
31	142	-	120	135	-	234	-	1,460	-	120	75	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,833	310	76	156	9,590
November	4,347	265	122	145	8,620
December	3,636	135	95	117	7,210
Calendar year 1949	88,444	1,380	56	242	175,400
January	3,985	210	72	129	7,900
February	4,155	280	90	148	8,240
March	6,185	272	126	200	12,270
April	15,738	915	261	525	31,220
May	29,654	1,500	450	957	58,820
June	38,457	1,640	816	1,282	76,280
July	8,024	740	111	259	15,920
August	2,820	118	71	91.0	5,590
September	3,967	193	72	132	7,870
Water year 1949-50	125,801	1,640	71	345	249,500

* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 12-14, 21-31, Jan. 11-25, Feb. 21, 25. No gage-height record Jan. 26 to Feb. 20, Feb. 22-24, Feb. 26 to Mar. 4; discharge computed on basis of weather records and records for nearby stations.

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 1950.

Extremes.--Maximum contents during year, 74,240 acre-feet June 23, 25, June 27 to July 14 (elevation, 5,560.2 feet); minimum contents, 19,050 acre-feet Oct. 1 (elevation, 5,510.75 feet).

1930-50: Maximum contents, 74,460 acre-feet May 31, 1937 (elevation, 5,560.35 feet); no storage 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) above mean sea level. 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,050	23,170	23,840	24,130	26,180	29,770	44,500	67,440	69,650	74,240	64,510	42,780
2	19,130	23,170	23,790	24,170	26,180	30,050	45,190	67,440	69,720	74,240	63,950	42,110
3	19,160	23,170	23,750	24,170	26,100	30,330	46,190	67,440	69,870	74,240	63,400	41,550
4	19,240	23,170	23,750	24,080	26,100	30,610	46,720	67,440	69,870	74,240	62,720	41,000
5	19,240	23,170	23,790	23,960	26,180	30,990	47,020	67,440	69,870	74,240	62,040	40,440
6	19,280	23,210	23,790	23,840	26,360	31,460	47,320	67,440	69,870	74,240	61,220	39,900
7	19,360	23,210	23,790	23,750	26,800	32,080	47,920	67,440	69,870	74,240	60,550	39,250
8	19,510	23,250	23,790	23,710	27,060	32,570	48,950	67,440	70,520	74,240	59,880	38,720
9	19,620	23,290	23,790	23,750	27,240	33,050	50,050	67,730	70,520	74,240	59,210	38,180
10	19,780	23,290	23,880	23,750	27,370	33,490	50,730	67,590	70,520	74,240	58,550	37,760
11	19,930	23,630	23,880	23,750	27,500	33,990	51,230	67,440	70,800	74,240	57,890	37,450
12	20,090	23,790	23,840	23,750	27,590	34,440	51,600	67,440	71,380	74,240	57,230	37,450
13	20,240	23,880	23,790	23,750	27,860	34,780	52,220	67,590	71,890	74,240	56,450	37,450
14	20,400	23,880	23,750	23,790	27,950	35,080	52,980	67,730	72,470	74,240	55,920	37,450
15	20,560	23,920	23,710	23,840	28,040	35,540	53,870	67,870	72,990	74,090	55,150	37,450
16	20,670	23,920	23,670	23,790	28,130	35,900	54,440	68,010	73,360	73,500	54,380	37,660
17	20,750	23,920	23,750	23,790	28,220	36,200	55,150	68,010	73,800	72,770	53,740	37,870
18	20,910	23,920	23,840	23,880	28,310	36,820	56,580	68,150	73,940	72,040	53,110	38,080
19	21,190	23,920	23,960	24,040	28,400	37,450	57,890	68,440	73,940	71,460	52,220	38,290
20	21,670	23,880	24,000	24,170	28,490	38,080	58,810	68,440	74,020	70,880	51,480	38,400
21	21,910	23,840	24,000	24,250	28,540	38,560	60,010	68,440	74,090	70,300	50,730	38,610
22	22,150	23,790	24,000	24,420	28,580	39,040	61,630	68,580	74,160	69,720	49,990	38,820
23	22,350	23,750	24,000	24,680	28,720	39,680	63,060	68,790	74,240	69,150	49,130	38,820
24	22,560	23,750	24,080	25,190	28,860	40,230	64,650	58,940	74,090	68,580	48,400	38,930
25	22,720	23,790	24,080	25,580	28,950	40,880	65,900	69,150	74,240	68,010	47,800	39,040
26	22,840	23,840	24,130	25,750	29,040	41,490	66,740	69,150	74,160	67,440	46,960	39,140
27	22,920	23,840	24,130	25,880	29,180	42,000	67,160	69,150	74,240	66,880	46,250	39,360
28	23,010	23,840	24,130	25,960	29,450	42,560	67,440	69,150	74,240	66,320	45,430	39,410
29	23,050	23,840	24,130	26,050	-	43,010	67,440	69,150	74,240	65,900	44,840	39,470
30	23,090	23,840	24,130	26,100	-	43,460	67,440	69,150	74,240	65,340	44,150	39,520
31	23,130	-	24,130	26,140	-	43,920	-	69,440	-	64,920	43,460	-

Monthly elevation and contents, water year October 1949 to September 1950

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	5,510.75	19,050	+4,120
Nov. 1	5,515.95	23,170	+670
Dec. 1	5,516.75	23,840	+290
Calendar year 1949	-	-	+11,420
Jan. 1	5,517.10	24,130	+2,050
Feb. 1	5,519.50	26,180	+3,590
Mar. 1	5,523.50	29,770	+14,730
Apr. 1	5,537.70	44,500	+22,940
May 1	5,555.50	67,440	+2,210
June 1	5,557.05	69,650	+4,590
July 1	5,560.20	74,240	-9,730
Aug. 1	5,553.40	64,510	-21,730
Sept. 1	5,536.20	42,780	-3,200
Oct. 1	5,533.30	39,580	-
Water year 1949-50	-	-	+20,530

Weber River at Echo, Utah

Location.--Water-stage recorder, lat. 40°57'55", long. 111°26'10", in SE¼NE¼ sec. 25, T. 3 N., R. 4 E., half a mile upstream from Echo Creek, a quarter of a mile downstream from Echo Dam, and three-quarters of a mile southeast of Echo. Prior to Mar. 23, 1950, at site a quarter of a mile downstream at different datum.

Drainage area.--732 square miles.

Records available.--April 1927 to September 1950.

Average discharge.--23 years, 271 second-feet.

Extremes.--Maximum discharge during year, 2,580 second-feet May 26 (gage height, 6.96 feet); minimum daily, 5.2 second-feet Mar. 7-9.
1927-50: Maximum discharge, that of May 26, 1950; minimum daily, 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	167	161	157	157	88	8.4	773	2,470	1,010	470	415
2	96	169	161	167	157	88	75	815	2,480	842	474	418
3	96	169	151	172	143	88	181	863	2,260	847	493	415
4	96	169	141	172	130	88	211	960	1,800	650	500	400
5	96	161	141	172	130	90	211	820	1,770	614	496	390
6	96	153	141	172	130	30	211	799	1,970	559	489	386
7	96	155	141	153	130	5.2	214	734	2,140	527	477	382
8	111	155	141	145	133	5.2	208	462	2,170	531	470	368
9	132	172	141	145	133	5.2	211	758	1,690	504	462	344
10	132	178	141	145	133	5.5	211	714	1,290	520	474	317
11	132	180	141	145	133	5.5	240	691	1,180	539	466	278
12	132	180	141	145	133	5.5	314	729	1,310	425	455	250
13	132	180	141	145	133	5.8	314	825	1,390	376	455	214
14	132	180	141	145	133	6.1	317	990	1,540	415	462	180
15	132	180	141	145	133	6.4	314	1,280	1,660	520	462	154
16	132	180	128	145	133	6.1	311	1,620	1,740	572	466	114
17	132	180	120	145	133	6.1	267	1,700	1,880	580	477	95
18	155	180	120	145	133	6.4	263	1,890	1,940	568	481	90
19	165	180	135	145	133	6.4	422	1,970	1,860	524	481	103
20	165	180	141	161	133	6.7	422	1,990	1,790	489	477	116
21	165	180	141	149	133	6.7	425	2,030	1,710	493	477	129
22	167	180	141	122	133	6.7	606	2,180	1,770	496	477	160
23	167	165	141	74	133	7.1	734	2,370	1,790	485	470	175
24	167	161	141	49	147	7.2	734	2,500	1,610	462	466	177
25	167	161	141	67	147	7.2	739	2,520	1,560	462	466	177
26	167	161	153	111	147	7.2	820	2,380	1,270	448	466	177
27	167	161	157	141	134	7.2	1,010	2,180	1,190	444	462	177
28	167	161	157	157	88	7.5	1,100	2,220	1,220	436	455	180
29	167	161	157	157	-	7.5	996	2,220	1,030	449	448	180
30	169	161	157	157	-	7.5	852	1,990	984	425	440	180
31	169	-	157	157	-	8.0	-	2,180	-	451	429	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,295	169	96	139	8,520
November	5,100	180	153	170	10,120
December	4,452	161	120	144	8,830
Calendar year 1949	115,719.3	1,650	5.8	317	229,500
January	4,407	172	49	142	8,740
February	3,768	157	88	135	7,470
March	633.9	90	5.2	20.4	1,260
April	12,941.4	1,100	8.4	431	25,670
May	46,153	2,520	462	1,489	91,540
June	50,464	2,480	984	1,682	100,100
July	16,663	1,010	376	538	33,050
August	14,543	500	429	469	28,850
September	7,141	418	90	238	14,160
Water year 1949-50	170,561.3	2,520	5.2	467	338,300

Note.--Discharge computed from daily staff-gage readings Jan. 6-24, Jan. 27 to Feb. 20.

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 305, 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 1950.

Average discharge.--45 years, 441 second-feet.

Extremes.--Maximum discharge during year, 3,520 second-feet May 24 (gage height, 7.33 feet); minimum, 67 second-feet Mar. 13 (gage height, 1.26 feet).
1905-50: Maximum discharge observed, 6,000 second-feet May 22, 1920; minimum, 18 second-feet Sept. 23, 1934, Mar. 6, 1948.

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 Echo Reservoir (see p. 87).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	127	208	196	190		196	151	1,400	3,010	1,120	468	44
2	122	208	191	195		198	235	1,420	2,980	964	477	43
3	121	208	186	200		204	406	1,470	2,800	940	481	444
4	121	208	168	200		206	418	1,560	2,310	810	503	426
5	119	206	170	200		219	410	1,430	2,120	725	503	415
6	121	196	170	200		191	430	1,350	2,240	690	503	414
7	129	196	170	180		131	517	1,300	2,390	630	503	410
8	131	201	170	170		121	670	994	2,620	635	485	418
9	154	208	170	170		121	700	1,270	2,160	615	490	399
10	158	238	175	170		117	615	1,210	1,740	600	494	365
11	154	238	168	170	200	112	600	1,190	1,560	680	494	340
12	151	232	164	170		102	700	1,260	1,630	540	490	313
13	154	230	162	170		94	785	1,460	1,700	460	481	272
14	154	230	164	170		102	875	1,820	1,740	468	490	230
15	151	227	170	170		101	825	2,240	1,840	560	494	214
16	151	227	147	175		96	860	2,730	1,880	620	494	154
17	154	224	142	190		108	952	2,980	1,910	625	499	129
18	173	221	144	208		147	927	3,220	2,020	605	508	116
19	216	224	156	211		140	1,200	3,220	1,940	570	512	121
20	214	224	166	230		147	1,220	3,120	1,860	517	503	142
21	211	221	164	227		132	1,320	3,120	1,790	517	508	151
22	211	221	162	194	204	134	1,550	3,220	1,800	508	512	189
23	208	214	168	177	208	134	1,820	3,350	1,860	490	508	221
24	208	198	170	138	224	134	1,810	3,450	1,670	472	503	227
25	208	198	164	*127	252	147	1,650	3,440	1,670	468	503	230
26	208	198	170		263	145	1,650	3,250	1,420	464	499	230
27	206	198	182		263	138	1,840	3,030	1,260	460	485	227
28	206	196	*180		211	129	1,930	3,010	1,310	455	481	227
29	204	196	180	180	-	121	1,770	3,000	1,190	460	468	230
30	204	196	180		-	129	1,540	2,760	1,080	435	472	232
31	204	-	180		-	134	-	2,790	-	451	460	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,253	216	119	169	10,420
November	6,390	238	198	213	12,670
December	5,249	196	142	169	10,410
Calendar year 1949	155,458	1,810	-	426	308,300
January	5,682	230	-	183	11,270
February	5,825	263	-	208	11,550
March	4,330	219	94	140	8,590
April	30,376	1,930	151	1,013	60,250
May	71,064	3,450	994	2,292	141,000
June	57,500	3,010	1,080	1,917	114,000
July	18,554	1,120	435	599	36,800
August	15,271	512	460	493	30,290
September	8,372	444	116	279	16,610
Water year 1949-50	233,866	3,450	94	641	463,900

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 28 to Jan. 17. No gage-height record Jan. 20 to Feb. 21; discharge computed on basis of weather records and records for Weber River at Echo and at Gateway.

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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 1950. October 1889 to July 1903 at site 1 mile downstream, published as Weber River near Uinta.

Average discharge.--30 years (1920-50), 587 second-feet.

Extremes.--Maximum discharge during year, 4,810 second-feet May 24 (gage height, 7.54 feet); minimum, 220 second-feet Mar. 13, but may have been less during periods of ice effect or no gage-height record.
1889-1903, 1919-50: Maximum discharge observed, 7,980 second-feet May 31, 1896; minimum, 45 second-feet Sept. 24, 1934.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above and below station for irrigation. Flow regulated by Echo and East Canyon Reservoirs (see pp. 87, 94).

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	324	339	282		309	441	460	1,870	3,730	1,270	645	595
2	309	339	282		315	422	660	1,840	3,690	1,160	656	580
3	273	335	289		320	460	842	1,940	3,470	1,060	651	585
4	263	331	260		330	521	836	2,020	3,000	1,000	661	575
5	260	331	266		340	587	854	1,970	2,620	843	661	561
6	254	320	263		372	637	932	1,840	2,590	820	656	556
7	279	320	266		672	422	1,140	1,810	2,820	741	671	561
8	279	324	266		451	372	1,470	1,560	3,060	725	640	566
9	289	302	266	235	372	356	1,500	1,820	2,730	714	625	580
10	299	352	269		352	343	1,340	1,770	2,260	725	630	556
11	309	364	257		347	317	1,240	1,700	2,030	797	645	551
12	292	331	251		324	282	1,320	1,790	1,990	714	620	547
13	295	320	251		299	254	1,470	2,060	2,040	625	620	506
14	295	317			306	269	1,640	2,480	2,040	571	615	458
15	289	317			309	260	1,560	2,960	2,080	600	610	449
16	285	317			306	251	1,570	3,570	2,100	677	605	404
17	282	317		313	302	339	1,720	4,090	2,120	682	605	373
18	309	313		386	302	496	1,720	4,420	2,220	666	615	350
19	356	309		470	299	475	1,950	4,430	2,220	671	620	336
20	364	306		386	313	565	1,960	4,180	2,110	656	625	315
21	368	306		386	313	431	h2,090	4,090	2,040	656	635	308
22	360	306	235	422	302	399	2,320	4,250	2,040	651	625	325
23	352	306		570	320	390	h2,680	4,510	2,100	635	620	354
24	347	299		455	352	372	2,600	4,680	1,920	620	620	362
25	347	295		317	441	470	2,520	4,730	1,920	610	625	369
26	343	292		*289	501	431	2,360	4,500	1,750	620	620	377
27	343	292		306	559	394	2,480	4,130	1,510	615	600	365
28	339	289		364	511	364	2,600	3,950	1,510	625	605	358
29	339	289		327	-	335	2,440	3,940	1,420	661	590	354
30	339	*289	(*)	320	-	368	2,100	3,730	1,240	625	590	365
31	339	-	(*)	306	-	386	-	3,570	-	630	590	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,721	368	254	314	19,280
November	9,467	364	289	316	18,780
December	7,698	289	-	248	15,270
Calendar year 1949	243,414	2,620	-	667	482,800
January	9,377	570	-	302	18,600
February	10,239	672	299	366	20,310
March	12,409	637	251	400	24,610
April	50,354	2,680	460	1,678	99,880
May	96,200	4,730	1,560	3,103	190,800
June	68,370	3,730	1,240	2,279	135,600
July	22,665	1,270	571	731	44,960
August	19,396	671	590	626	38,470
September	13,541	595	308	451	26,860
Water year 1949-50	329,437	4,730	-	903	653,400

* Winter discharge measurement made on this day.
h Computed from staff-gage reading.
Note.--Stage-discharge relation affected by ice Dec. 14 to Jan. 7, Jan. 11-16, Feb. 2-5. No gage-height record Jan. 8-10, Apr. 22, 24; discharge computed on basis of discharge measurements, weather records, and records for Weber River at Echo, at Devils Slide, and near Plain City.

Weber River near Plain City, Utah

Location.--Water-stage recorder, 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 1950. Records collected in 1904 by State engineer.

Extremes.--Maximum discharge during year, 5,500 second-feet May 20 (gage height, 17.25 feet); minimum, 30 second-feet Aug. 24 (gage height, 2.20 feet).
1904-50: 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.

Remarks.--Records good. 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 ppp. 87, 95, 98).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	410	388	398	579	779	821	3,030	3,840	721	90	62
2	95	402	381	414	519	738	971	2,790	3,860	695	77	42
3	78	398	384	459	521	746	1,150	2,790	3,540	551	76	38
4	68	400	369	524	535	779	1,230	2,910	3,200	523	55	42
5	52	396	402	543	630	900	1,290	2,910	2,670	386	73	42
6	51	392	418	510	683	1,080	1,360	2,760	2,370	312	60	43
7	91	381	418	506	968	1,110	1,510	2,740	2,730	249	59	45
8	217	400	416	386	905	1,180	1,910	2,680	3,170	168	73	46
9	205	402	414	459	736	1,150	2,260	2,520	3,170	133	54	58
10	252	453	388	506	681	1,150	2,130	2,760	2,580	206	45	95
11	287	530	350	508	698	1,130	1,990	2,590	2,050	362	46	126
12	321	453	398	508	669	1,070	1,990	2,530	1,840	345	50	155
13	392	430	420	508	628	1,030	2,150	2,550	1,860	230	48	163
14	398	416	424	495	614	1,030	2,350	2,860	1,830	128	45	144
15	369	412	497	326	623	1,020	2,370	3,330	1,820	69	a41	136
16	324	406	519	365	621	992	2,330	3,950	1,780	61	a38	114
17	330	400	517	521	614	1,000	2,420	4,560	1,730	76	35	104
18	449	398	532	614	607	1,200	2,560	5,150	1,810	78	34	104
19	438	392	535	755	598	1,150	2,650	5,420	1,870	64	35	91
20	493	388	532	738	605	1,310	2,790	5,440	1,720	58	35	97
21	499	382	535	707	605	1,100	2,870	4,830	1,600	69	36	71
22	470	400	532	717	593	890	3,050	4,510	1,550	63	37	61
23	455	402	535	810	591	908	3,300	4,180	1,530	66	34	65
24	455	400	552	922	600	893	3,650	4,470	1,490	68	35	79
25	447	377	402	746	644	938	3,860	4,860	1,460	77	36	95
26	436	388	379	623	738	989	3,740	5,010	1,390	60	48	96
27	430	390	440	609	806	950	3,540	4,830	1,120	58	50	98
28	426	379	552	651	852	911	3,680	4,540	1,010	51	42	104
29	420	398	535	637	-	857	3,710	4,440	962	64	52	109
30	404	390	546	598	-	836	3,400	4,300	786	78	51	171
31	406	-	400	586	-	806	-	3,920	-	82	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,849	499	51	318	19,540
November	12,165	530	377	406	24,130
December	14,110	552	350	455	27,990
Calendar year 1949	261,277	4,170	35	716	518,200
January	17,649	922	326	569	35,010
February	18,463	968	519	659	36,620
March	30,622	1,310	738	988	60,740
April	73,032	3,860	821	2,434	144,900
May	116,160	5,440	2,520	3,747	230,400
June	62,338	3,860	786	2,078	123,600
July	6,149	721	51	198	12,200
August	1,532	90	34	49.4	3,040
September	2,696	171	38	89.9	5,350
Water year 1949-50	364,785	5,440	34	999	723,500

a No gage-height record; discharge interpolated.

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 1950.

Average discharge.--23 years (1927-50), 59.1 second-feet.

Extremes.--Maximum discharge during year, 923 second-feet May 25 (gage height, 3.14 feet); minimum, 5.4 second-feet Dec. 2.
1927-50: Maximum discharge, that of May 25, 1950; 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	27	15	19	26	31	46	236	764	150	49	26
2	26	26	13	20	24	31	55	258	738	147	47	26
3	26	25	18	17	24	37	66	284	568	139	44	26
4	25	22	11	17	25	37	52	268	497	126	40	24
5	24	22	16	18	27	41	51	246	532	134	37	24
6	22	22	14	20	29	41	59	255	580	121	33	24
7	27	22	20	20	32	34	89	230	609	124	33	25
8	29	24	17	20	29	29	142	217	512	129	32	27
9	27	24	20	20	27	36	147	202	447	121	31	31
10	27	25	18	21	28	36	116	218	428	121	28	32
11	28	26	9.8	22	29	31	121	278	439	126	27	41
12	26	24	13	21	28	26	137	315	447	124	28	51
13	29	22	20	21	26	22	184	356	424	116	27	41
14	29	24	19	20	27	32	258	432	402	109	28	41
15	28	24	16	19	27	32	187	548	381	104	24	40
16	27	21	18	20	27	27	169	609	360	91	26	40
17	27	21	19	20	27	33	236	725	335	86	26	41
18	31	21	19	25	24	46	342	804	318	78	26	40
19	43	20	21	27	24	38	291	742	308	78	28	36
20	34	19	20	27	27	40	294	686	291	78	28	41
21	31	18	20	29	27	37	388	729	271	78	31	40
22	29	18	20	31	22	38	454	804	268	74	28	44
23	28	19	21	32	28	37	500	826	249	66	28	41
24	28	24	20	31	29	40	458	848	239	63	28	43
25	27	22	18	25	29	44	321	861	239	59	28	40
26	27	21	19	24	32	43	315	742	224	55	27	38
27	27	22	20	26	37	38	328	747	208	54	27	34
28	26	21	20	27	36	37	332	786	187	54	27	34
29	26	21	20	26	-	33	275	725	167	57	29	34
30	26	19	20	26	-	37	242	725	155	54	28	36
31	25	-	19	25	-	43	-	795	-	51	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	860	43	22	27.7	1,710
November	666	27	18	22.2	1,320
December	553.8	21	9.8	17.9	1,100
Calendar year 1949	27,309.8	387	9.8	74.8	54,180
January	716	32	17	23.1	1,420
February	777	37	22	27.8	1,540
March	1,107	46	22	35.7	2,200
April	6,655	500	46	222	13,200
May	16,496	861	202	532	32,720
June	11,587	764	155	386	22,980
July	2,967	150	51	95.7	5,880
August	950	49	24	30.6	1,880
September	1,069	51	24	35.6	2,120
Water year 1949-50	44,403.8	861	9.8	122	88,070

Peak discharge (base, 400 sec.-ft.).--Apr. 18 (7 p.m.) 413 sec.-ft.; Apr. 23 (8 p.m.) 572 sec.-ft., May 18 (12 m.) 861 sec.-ft.; May 25 (5 a.m.) 923 sec.-ft.; June 7 (10 a.m.) 639 sec.-ft.

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 1950.

Average discharge.--11 years (1921-23, 1941-50), 37.2 second-feet.

Extremes.--Maximum discharge during year, 564 second-feet May 23 (gage height, 5.63 feet); minimum recorded, 8.7 second-feet Dec. 4.

1921-23, 1941-50: 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 on several days in August and September 1941, 1942.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	14	12	16		22	32	181	278	47	20	13
2	13	14	12	16		22	44	175	268	45	19	13
3	12	13	12			22	51	176	229	44	19	13
4	12	13	13			23	42	165	204	42	19	13
5	12	13	14			28	41	151	185	41	19	13
6	12	14	11			32	45	149	181	39	18	14
7	15	13	13		(*)	30	79	141	193	39	18	15
8	16	14	12			28	127	136	180	42	17	14
9	15	14	12			26	122	129	155	39	17	15
10	16	18	14			24	83	124	159	39	17	15
11	15	17			18	23	69	133	127	38	17	19
12	15	15				23	82	156	122	30	17	17
13	22	14				24	121	199	118	32	16	16
14	20	15		16		24	155	274	111	30	16	16
15	16	15				23	128	358	105	29	16	16
16	15	14				22	162	418	99	27	15	16
17	15	14				22	214	480	94	27	15	16
18	18	14				30	227	523	89	26	14	16
19	21	14				28	208	474	85	25	14	15
20	18	14				28	227	452	80	24	14	16
21	16	13	14			28	283	471	76	24	14	16
22	15	13			(*)	29	337	513	72	23	14	17
23	16	13			15	29	359	532	69	22	13	17
24	15	14			14	28	330	532	65	22	13	18
25	15	14		*18	14	28	294	499	63	21	13	17
26	15	13			16	26	268	420	59	20	13	16
27	15	13			20	25	258	a396	56	21	13	16
28	15	13	(*)	18	21	24	241	a372	53	22	13	16
29	15	*14			-	24	207	a348	51	26	13	16
30	14	13			-	24	187	a324	49	22	13	17
31	14	-			-	26	-	a300	-	21	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	476	22	12	15.4	944
November	419	18	13	14.0	831
December	419	-	-	13.5	831
Calendar year 1949	15,181.6	281	-	41.6	30,110
January	510	-	-	16.5	1,010
February	496	-	-	17.7	984
March	795	32	22	25.6	1,580
April	5,029	359	32	168	9,970
May	9,701	532	124	313	19,240
June	3,655	278	49	122	7,250
July	949	47	20	30.6	1,880
August	482	20	13	15.5	956
September	467	19	13	15.6	926
Water year 1949-50	23,398	532	-	64.1	46,400

Peak discharge (base, 130 sec.-ft.).--Apr. 8 (12 p.m.) 143 sec.-ft.; Apr. 14 (2:30 a.m.) 177 sec.-ft.; Apr. 17 (10 p.m.) 274 sec.-ft.; Apr. 22 (11 p.m.) 390 sec.-ft.; May 23 (11:30 p.m.) 564 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

Note.--Stage-discharge relation affected by ice Dec. 11 to Feb. 22 (no gage-height record Jan. 3-24, Jan. 26 to Feb. 6, Feb. 8-21; discharge computed on basis of discharge measurements, weather records, and records for Chalk Creek near Coalville and South Fork Ogden River near Huntsville).

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 1950 in reports of Geological Survey. November 1931 to September 1950 in reports of Weber River water commissioner.

Extremes.--Maximum contents observed during year, 28,740 acre-feet July 11, 12 (gage height, 140.84 feet); minimum observed, 10,590 acre-feet Nov. 6.
1931-50: 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), 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. Water is used for irrigation in Davis and Weber Counties.

Contents, in acre-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	13,050	-	-	-	-	-	28,490	-	-
2	13,000	-	-	-	-	-	20,100	-	-	28,550	-	-
3	-	-	-	-	-	-	-	-	-	28,590	-	18,540
4	-	-	11,900	-	-	-	-	-	27,210	28,640	-	-
5	-	-	-	-	14,930	16,930	-	-	27,240	28,660	-	-
6	-	10,590	-	-	-	-	-	-	27,550	28,660	24,790	-
7	-	-	-	-	-	-	-	23,350	27,850	28,660	-	-
8	-	-	-	13,230	-	-	-	-	28,230	28,660	-	-
9	11,900	-	-	-	-	-	23,620	-	28,520	28,670	-	-
10	-	-	-	-	-	-	-	-	28,590	28,680	-	17,210
11	-	-	12,240	-	-	-	-	-	28,560	28,740	-	-
12	-	-	-	-	15,500	17,690	-	-	28,510	28,740	-	-
13	-	10,850	-	-	-	-	-	-	28,460	28,720	23,140	-
14	-	-	-	-	-	-	-	22,790	28,510	28,720	-	-
15	-	-	-	13,640	-	-	-	-	28,510	28,680	-	-
16	11,620	-	-	-	-	-	23,540	-	28,500	28,680	-	-
17	-	-	-	-	-	-	-	-	28,520	28,660	-	15,890
18	-	-	12,570	-	-	-	-	-	28,520	28,670	-	-
19	-	-	-	-	16,170	18,290	-	-	28,530	28,670	-	-
20	-	11,260	-	-	-	-	-	-	28,530	28,440	21,460	-
21	-	-	-	-	-	-	-	24,930	28,530	-	-	-
22	-	-	-	14,060	-	-	-	-	28,520	-	-	-
23	11,350	-	-	-	-	-	24,020	-	28,510	27,830	-	-
24	-	-	-	-	-	-	-	26,120	28,520	-	-	15,120
25	-	-	12,860	-	-	-	-	26,320	28,550	-	-	-
26	-	-	-	-	16,250	19,120	-	26,480	28,540	-	-	-
27	-	11,620	-	-	-	-	-	26,580	28,540	-	19,950	-
28	-	-	-	-	a16,440	-	-	26,690	28,530	-	-	-
29	-	-	-	14,600	-	-	-	-	28,520	-	-	-
30	10,940	a11,740	-	-	-	-	23,940	-	28,520	26,320	-	a14,590
31	a10,890	-	a13,020	a14,690	-	a19,820	-	a26,910	-	a26,100	a19,150	-

a No gage-height record; contents interpolated.

Monthly gage height and contents, water year October 1949 to September 1950

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	-	a13,230	-
Oct. 31	-	a10,890	-2,340
Nov. 30	-	a11,740	+850
Dec. 31	-	a13,020	+1,280
Calendar year 1949	-	-	-3,020
Jan. 31	-	a14,690	+1,670
Feb. 28	-	a16,440	+1,750
Mar. 31	-	a19,820	+3,380
Apr. 30	131.34	23,940	+4,120
May 31	-	a26,910	+2,970
June 30	140.43	28,520	+1,610
July 31	-	a26,100	-2,420
Aug. 31	-	a19,150	-6,950
Sept.30	-	a14,590	-4,560
Water year 1949-50	-	-	+1,360

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 1950 in reports of Geological Survey. October 1931 to September 1950 in reports of Weber River water commissioner.

Average discharge.--19 years (1931-50), 51.9 second-feet.

Extremes.--Maximum daily discharge during year, 243 second-feet Apr. 10, 24; minimum daily, 7.8 second-feet Jan. 9-14, 21.
1931-50: Maximum daily discharge, 412 second-feet Apr. 23, 1936; minimum daily, 3.2 second-feet Nov. 20, 22, 23, 1948.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	61	9.7	11	8.4	9.7	18	241	199	42	115	112
2	78	61	9.7	11	8.4	9.7	46	241	185	28	113	110
3	57	61	9.7	11	8.4	9.7	70	241	181	27	113	113
4	60	61	9.7	11	8.4	9.7	95	241	166	38	113	115
5	61	61	9.7	11	8.4	11	110	241	95	50	112	113
6	64	56	10	11	8.4	12	113	241	45	53	117	112
7	66	52	10	11	8.4	12	170	241	46	50	117	112
8	66	34	10	9.7	9.0	12	207	241	46	49	117	112
9	64	9.0	10	7.8	9.0	12	229	236	89	49	117	110
10	64	9.0	11	7.8	9.0	13	243	236	144	52	115	115
11	63	9.0	11	7.8	9.0	13	241	236	150	57	115	117
12	59	8.4	11	7.8	9.7	13	241	232	136	54	115	115
13	60	8.4	11	7.8	9.7	14	241	232	109	52	117	115
14	60	8.4	11	7.8	9.7	14	241	232	96	49	119	113
15	60	8.4	11	8.4	9.7	14	241	232	97	46	117	112
16	60	8.4	11	8.4	9.7	14	238	232	92	48	117	110
17	59	8.4	11	8.4	9.7	14	238	193	89	38	115	113
18	60	8.4	11	8.4	9.7	15	238	142	90	34	115	119
19	61	8.4	11	8.4	9.7	15	238	144	92	94	113	85
20	61	8.4	11	8.4	9.7	15	238	144	92	119	115	66
21	60	8.4	11	7.8	9.7	15	241	144	90	117	115	66
22	60	8.4	11	8.4	9.7	15	241	144	87	115	113	66
23	61	8.4	11	8.4	9.7	15	241	146	72	115	113	61
24	63	8.4	11	8.4	9.7	15	243	188	66	115	112	66
25	63	8.4	11	8.4	9.7	16	241	222	72	115	112	67
26	63	8.4	11	8.4	9.7	16	241	222	74	113	110	66
27	61	9.0	11	8.4	9.7	16	241	222	73	113	113	66
28	61	9.0	11	8.4	9.7	16	241	222	70	113	117	66
29	61	9.7	11	8.4	-	16	241	217	66	112	115	64
30	63	9.7	11	8.4	-	17	241	213	64	115	113	64
31	63	-	11	8.4	-	17	-	211	-	115	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,956	94	57	63.1	3,880
November	637.4	61	8.4	21.2	1,260
December	330.5	11	9.7	10.7	656
Calendar year 1949	26,246.8	304	4.7	71.9	52,060
January	275.7	11	7.8	8.89	547
February	259.7	9.7	8.4	9.28	515
March	425.8	17	9.7	13.7	845
April	6,108	243	18	204	12,120
May	6,570	241	142	212	13,030
June	2,973	199	45	99.1	5,900
July	2,287	119	27	73.8	4,540
August	3,552	119	110	115	7,050
September	2,841	119	61	94.7	5,640
Water year 1949-50	28,216.1	243	7.8	77.3	55,970

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 1950.

Extremes.--Maximum discharge during year, 383 second-feet May 24 (gage height, 3.31 feet); minimum recorded, 4.9 second-feet Dec. 6, but may have been less during periods of ice effect.

1941-50: 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. A small trans-basin canal diverts water from Arthurs Fork, a tributary of Hardscrabble Creek, to Farmington Creek for irrigation in vicinity of Farmington.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.9	8.5	7.3			22	37	76	230	45	16	9.1
2	7.6	8.5	7			20	49	74	205	43	17	9.2
3	7.3	8.5	6.7			21	51	77	155	41	16	9.0
4	7.0	8.5	6.5			22	48	76	133	40	16	8.8
5	7.0	8.2	6.4			27	46	73	138	38	15	8.6
					8							
6	7.0	8.2	6.4			29	54	71	158	36	15	8.6
7	9.9	8.2	6.4			25	82	68	173	35	14	8.8
8	8.8	9.2	6.4			23	110	70	128	34	12	9.1
9	9.6	8.8	6.7			19	100	71	113	32	13	9.4
10	11	14	6.7			18	79	77	100	36	13	9.6
11	9.2	12	6			16	73	98	96	32	14	10
12	9.9	10	6			16	81	135	107	32	12	9.0
13	12	9.9	6.5			15	98	168	113	29	12	9.0
14	9.9	9.6	6			14	104	194	113	29	12	9.4
15	9.2	9.2	6			14	85	227	109	27	12	9.4
					7							
16	8.8	8.8	6.5			14	87	243	103	26	12	9.4
17	10	8.8	6.5		9	18	108	274	98	24	11	9.4
18	14	8.5	6.5			24	121	317	90	24	11	9.0
19	12	8.5	6.5			25	117	250	84	22	11	9.0
20	11	8.5	6.7			25	126	220	80	22	11	9.4
21	10	8.2	6.5			24	147	227	79	20	10	9.8
22	9.6	8.5	6.5			25	160	256	77	20	10	9.4
23	9.6	7.9	6.5		*11	24	174	292	73	20	9.8	9.8
24	9.2	10	6.5		12	25	150	321	70	19	9.8	9.4
25	8.8	9.9	6.5		13	26	124	263	63	17	9.8	9.0
26	9.2	9.2	7	(*)	17	26	117	236	59	18	9.8	8.6
27	9.6	8.5	7		22	25	117	233	54	18	9.4	8.2
28	9.2	9.2	7.5		23	24	106	270	51	20	9.8	9.0
29	9.2	9.9	*7.5		-	24	91	256	49	21	10	9.0
30	9.2	*8.4	7.5		-	24	81	253	47	20	9.8	11
31	8.2	-	7.5		-	27	-	250	-	17	9.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	290.9	14	7.0	9.38	577
November	274.1	14	7.9	9.14	544
December	206.2	7.5	6	6.65	409
Calendar year 1949	13,990.6	254	-	38.3	27,750
January	217	-	-	7	430
February	286	23	-	10.2	567
March	681	29	14	22.0	1,350
April	2,923	174	37	97.4	5,800
May	5,716	321	68	184	11,340
June	3,148	230	47	105	6,240
July	857	45	17	27.6	1,700
August	372.8	17	9.4	12.0	739
September	276.7	11	8.2	9.22	549
Water year 1949-50	15,248.7	321	-	41.8	30,250

Peak discharge (base, 220 sec.-ft.).--May 18 (1 a.m.) 356 sec.-ft.; May 24 (7 p.m.) 383 sec.-ft.; May 28 (3 p.m.) 288 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 2, 4, 11-19, Dec. 21 to Jan. 27. No gage-height record Jan. 28 to Feb. 22, Aug. 28 to Sept. 11; discharge computed on basis of discharge measurements, weather records, and records for nearby stations.

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 1950.

Average discharge.--29 years, 107 second-feet.

Extremes.--Maximum discharge during year, 1,300 second-feet May 18 (gage height, 5.17 feet); minimum recorded, 38 second-feet Dec. 12.
1921-50: 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 no gage-height record, which are fair. Small diversions above station.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	47	42	45	80	124	117	325	648	129	66	51
2	45	46	42	46	80	124	158	312	588	126	66	51
3	45	46	42	41	74	129	168	312	504	120	65	50
4	45	45	42	39	74	136	150	288	426	117	66	51
5	44	45	42	40	80	164	150	272	401	114	66	51
6	45	45	42	42	77	190	181	260	401	108	65	50
7	50	45	42	44	72	146	293	248	407	107	65	51
8	48	45	42	45	69	127	445	233	363	104	63	51
9	48	45	42	46	66	117	410	224	320	102	63	52
10	50	51	43	48	65	114	320	215	301	102	64	52
11	49	49	42	48	65	104	275	240	288	100	64	55
12	48	46	41	46	62	96	288	301	285	96	62	54
13	62	45	42	45	58	89	366	448	283	93	61	53
14	53	45	42	43	58	89	439	669	270	90	61	52
15	49	46	53	43	57	87	392	917	255	87	61	52
16	49	45	42	43	57	86	472	1,080	245	86	60	52
17	49	44	42	45	57	99	588	1,170	233	84	58	50
18	56	45	42	50	60	122	673	1,220	226	81	56	50
19	55	45	42	56	62	120	600	1,030	217	80	56	48
20	53	45	42	62	67	126	648	899	208	77	57	49
21	52	45	42	70	66	120	796	926	199	75	56	50
22	50	45	42	70	66	122	908	1,030	192	75	55	50
23	50	45	42	71	66	119	922	1,120	183	73	55	52
24	50	45	44	72	70	117	786	1,090	179	72	54	52
25	49	45	47	76	73	122	648	1,010	173	71	53	51
26	49	44	43	77	90	117	584	836	164	69	54	50
27	49	44	42	77	117	112	565	800	158	67	54	48
28	48	45	42	76	126	100	490	791	150	67	54	49
29	48	44	46	76	-	96	401	746	140	73	53	49
30	48	43	43	78	-	96	352	703	135	70	52	53
31	47	-	46	80	-	100	-	703	-	69	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,528	62	44	49.3	3,030
November	1,360	51	43	45.3	2,700
December	1,330	53	41	42.9	2,640
Calendar year 1949	48,957	908	0	134	97,110
January	1,740	80	39	56.1	3,450
February	2,014	126	57	71.9	3,990
March	3,610	190	86	116	7,160
April	13,585	922	117	453	26,950
May	20,418	1,220	215	659	40,500
June	8,542	648	135	285	16,940
July	2,784	129	67	89.8	5,520
August	1,836	66	51	59.2	3,640
September	1,529	55	48	51.0	3,030
Water year 1949-50	60,276	1,220	39	165	119,600

Peak discharge (base, 400 sec.-ft.).--Apr. 8 (8:30 p.m.) 493 sec.-ft.; Apr. 22 (9:30 p.m.) 1,060 sec.-ft.; May 18 (5:30 a.m.) 1,300 sec.-ft.

Note.--No gage-height record Jan. 3-26, Feb. 3-7; discharge computed on basis of discharge measurements, weather records, and records for Lost Creek near Croyden and Chalk Creek near Coalville.

Pine View Reservoir near Ogden, Utah

Location.--Staff gage, lat. 41°15'20", long. 111°50'25", in NW¼SE¼ 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 1950.

Extremes.--Maximum contents during year, 43,580 acre-feet June 6-23 (elevation, 4,872.00 feet); minimum, 6,170 acre-feet Mar. 30 (elevation, 4,839.43 feet).
1936-50: Maximum contents, 45,370 acre-feet May 17, 1938 (elevation, 4,873.00 feet); minimum, 80 acre-feet Feb. 19, 1937 (elevation, 4,818.99 feet).

Remarks.--Reservoir is formed by earth-fill, rock-faced dam; storage began Nov. 16, 1936. Capacity, 43,580 acre-feet between elevations 4,818 feet (sill of trash-rack structure) and 4,872 feet (top of spillway gates), above mean sea level; during September 1939 sills of radial spillway gates were raised 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 the figures of total contents shown in the 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,320	11,220	11,890	9,270	8,920	11,120	6,200	21,390	41,640	42,570	34,020	23,200
2	11,270	11,220	11,900	9,330	8,850	11,540	6,230	20,880	41,770	42,310	33,750	22,810
3	11,220	11,190	11,920	9,350	8,730	12,030	6,670	20,620	42,530	42,100	33,410	22,460
4	11,170	11,210	11,940	9,120	8,670	12,570	7,010	20,400	43,000	41,860	33,120	22,110
5	11,060	11,210	11,990	8,900	8,620	13,080	7,100	20,100	43,210	41,650	32,760	21,740
6	11,000	11,210	12,000	8,670	8,600	13,800	7,100	19,940	43,580	41,420	32,420	21,400
7	10,950	11,190	11,870	8,450	8,920	14,010	7,300	19,790	43,580	40,990	32,130	21,090
8	11,000	11,190	11,820	8,370	9,240	13,540	7,850	19,650	43,580	40,720	31,770	20,750
9	11,040	11,240	11,770	8,430	9,360	13,000	8,820	19,470	43,580	40,540	31,410	20,420
10	11,000	11,270	11,750	8,210	9,540	12,490	9,560	19,340	43,580	40,300	30,990	20,140
11	11,030	11,430	11,780	7,930	9,630	11,850	9,930	19,240	43,580	40,330	30,640	19,840
12	11,000	11,460	11,850	7,710	9,630	11,290	10,010	19,190	43,580	40,270	30,290	19,620
13	11,000	11,480	11,800	7,490	9,670	10,380	10,150	19,870	43,580	40,130	29,930	19,400
14	11,110	11,510	11,730	7,270	9,670	9,610	10,630	21,010	43,580	40,020	29,620	19,090
15	11,110	11,500	11,670	7,170	9,610	8,900	11,210	22,350	43,580	39,820	29,270	18,960
16	11,090	11,560	11,270	7,230	9,640	8,150	11,720	23,820	43,580	39,510	29,000	18,790
17	11,060	11,580	11,070	7,020	9,630	7,460	12,570	25,090	43,580	39,260	28,690	18,320
18	11,160	11,600	10,870	6,860	9,600	7,080	13,780	26,220	43,580	38,970	28,350	18,100
19	11,190	11,610	10,670	6,710	9,540	6,640	14,990	27,140	43,580	38,700	28,000	17,880
20	11,240	11,650	10,510	7,030	9,430	6,560	16,070	27,420	43,580	38,190	27,660	17,510
21	11,270	11,670	10,300	7,030	9,560	6,250	17,370	28,870	43,580	37,870	27,160	17,300
22	11,300	11,680	10,110	7,080	9,540	6,460	18,940	30,560	43,580	37,550	26,710	17,110
23	11,290	11,700	9,870	7,290	9,530	6,520	20,750	33,920	43,580	37,130	26,380	16,850
24	11,270	11,720	9,710	7,940	9,570	6,540	22,290	36,550	43,440	36,830	26,140	16,630
25	11,250	11,750	9,590	8,360	9,700	6,540	22,830	38,390	43,330	36,560	25,800	16,440
26	11,240	11,770	9,670	8,530	9,920	6,550	22,680	39,490	43,190	36,170	25,360	16,240
27	11,220	11,780	9,830	8,660	10,220	6,550	22,710	40,030	43,160	35,750	25,010	16,040
28	11,240	11,780	9,640	8,800	10,680	6,480	22,710	40,400	43,060	35,390	24,660	15,800
29	11,220	11,800	9,410	8,880	-	6,320	22,440	40,770	42,880	35,010	24,280	15,600
30	11,220	11,820	9,190	8,900	-	6,170	21,910	40,810	42,740	34,630	23,910	15,410
31	11,220	-	9,160	8,920	-	6,190	-	41,300	-	34,400	23,570	-

Monthly elevation and contents, water year October 1949 to September 1950

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	4,846.75	11,320	-100
Nov. 1	4,846.63	11,220	+670
Dec. 1	4,847.41	11,890	-2,620
Calendar year 1949	-	-	+1,140
Jan. 1	4,844.10	9,270	-350
Feb. 1	4,843.61	8,920	+2,200
Mar. 1	4,846.50	11,120	-4,920
Apr. 1	4,839.49	6,200	+15,190
May 1	4,856.78	21,390	+20,250
June 1	4,870.88	41,640	+930
July 1	4,871.42	42,570	-8,550
Aug. 1	4,866.13	34,020	-10,820
Sept. 1	4,858.28	23,200	-7,920
Oct. 1	4,851.09	15,280	-
Water year 1949-50	-	-	+3,960

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 1950, not including flow of Pine View pipe line, 1895-96, January 1904 to October 1912, and October 1931 to September 1937 at same site, including flow of pipe line, published as Ogden River near Ogden.

Average discharge.--13 years (1937-50), 83.7 second-feet.

Extremes.--Maximum discharge during year,1,460 second-feet May 20 (gage height, 5.78 feet); minimum daily, 0.3 second-foot Oct. 5, 6, 8, 9, 11.
1937-50: 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 periods of ice effect or 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	4.5	1.8	1.6	3.3	11	179	920	666	42	24	30
2	6.0	2.9	1.7	1.6	3.4	11	195	634	406	38	20	30
3	6.0	2.0	1.8	1.5	3.5	12	195	634	297	42	21	30
4	2.7	2.0	1.5	1.5	3.8	61	249	634	322	38	30	30
5	.3	1.9	1.8	1.5	4.7	142	a280	634	116	38	31	29
6	.3	1.9	1.7	1.5	9.0	269	a325	554	212	35	31	29
7	.4	1.9	1.7	1.5	23	458	a380	554	502	35	32	29
8	.3	2.6	1.6	1.6	11	526	459	554	554	34	32	29
9	.3	2.5	1.7	1.7	7.4	522	514	554	526	35	32	29
10	.4	11	1.8	1.8	7.7	514	510	554	300	32	30	27
11	.3	7.1	1.4	1.8	5.8	510	506	303	190	22	27	18
12	.4	4.3	1.4	1.7	4.7	506	514	303	193	22	27	12
13	8.2	3.3	1.5	1.7	4.5	495	a514	303	200	38	28	12
14	9.3	3.2	1.6	1.6	3.8	487	a520	386	200	37	27	12
15	5.5	2.8	1.8	1.3	3.8	472	534	751	179	42	28	12
16	3.4	2.5	1.8	1.4	3.7	457	550	1,160	110	43	28	12
17	3.6	2.4	1.8	1.5	3.7	457	534	1,260	81	49	28	13
18	6.2	2.3	1.9	2.1	3.4	461	570	1,350	81	43	29	13
19	4.7	2.3	1.9	3.9	4.0	461	a580	1,400	79	53	29	13
20	4.5	2.2	1.8	5.6	4.2	457	a580	1,030	77	39	29	13
21	4.5	2.1	1.6	5.8	4.0	265	a580	618	63	31	29	13
22	4.3	2.0	1.6	5.4	4.2	202	590	272	44	27	30	13
23	4.3	2.1	1.4	5.8	4.2	228	654	192	42	27	31	13
24	4.9	2.3	1.4	6.2	*5.3	236	880	524	48	28	31	13
25	4.9	2.3	1.4	6.4	7.4	246	1,140	780	46	31	31	13
26	4.9	2.2	1.3	6.2	10	243	975	890	36	38	31	14
27	4.3	2.1	1.5	*6.0	12	246	975	895	30	38	31	14
28	4.3	2.1	1.7	5.1	13	241	920	895	36	35	30	14
29	4.5	2.1	1.4	4.0	-	241	920	900	42	34	30	15
30	4.7	2.0	1.4	3.8	-	190	920	733	40	34	30	15
31	4.7	-	*1.6	3.6	-	165	-	662	-	32	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	119.1	9.3	0.3	3.84	236
November	86.9	11	1.9	2.90	172
December	50.3	1.9	1.3	1.62	99.8
Calendar year 1949	42,899.7	1,590	-	117	84,690
January	96.7	6.4	1.3	3.12	192
February	178.5	23	3.3	6.38	354
March	9,792	526	11	316	19,420
April	17,222	1,140	179	574	34,160
May	21,833	1,400	192	704	43,300
June	5,716	688	30	190	11,340
July	1,110	53	22	35.8	2,200
August	897	32	20	28.9	1,780
September	559	30	12	18.8	1,110
Water year 1949-50	57,660.5	1,400	.3	158	114,400

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage and appearance of hydrograph.
Note.--Stage-discharge relation affected by ice Jan. 3-7, 16,25, Feb. 2, 3. Discharge computed from staff-gage readings Dec. 15, 16, 21-25, 29, 30, Apr. 25 to May 15, July 13, 14, 30, Aug. 13-17.

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 1950. May to December 1904 and July 1913 to September 1934 at outlet of Utah Lake, 7½ miles upstream.

Average discharge.--37 years (1913-50), 359 second-feet.

Extremes.--Maximum daily discharge during year, 857 second-feet July 9; minimum daily, 12 second-feet Jan. 3.
1913-50: 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 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	520	134	117	18	15	237	144	517	744	793	731	820
2	512	133	116	16	15	253	144	427	730	813	741	817
3	510	132	116	12	14	260	140	224	753	821	777	818
4	513	133	114	14	14	260	144	114	727	821	767	823
5	486	133	115	15	17	278	132	146	692	816	714	825
6	478	134	115	16	44	236	44	143	747	813	693	824
7	390	136	115	15	57	258	25	143	700	826	717	828
8	294	136	116	14	45	275	19	145	612	852	742	832
9	261	135	116	14	36	266	18	146	580	857	784	815
10	211	135	112	14	30	242	19	176	644	784	838	735
11	184	133	58	14	25	226	20	203	667	664	840	584
12	177	130	22	14	26	200	274	252	661	670	841	410
13	155	124	18	14	28	283	332	265	690	705	847	432
14	139	126	75	15	28	287	272	282	710	644	843	490
15	131	126	52	14	52	289	262	348	701	771	842	528
16	130	126	26	16	190	204	318	368	708	848	819	568
17	139	123	19	16	210	168	326	468	697	849	806	555
18	139	116	20	19	222	167	281	568	700	838	812	515
19	138	116	17	20	235	169	330	638	718	816	803	509
20	139	114	15	22	225	164	354	622	721	829	800	514
21	135	114	18	24	218	166	355	584	752	851	803	517
22	132	113	16	28	235	154	318	609	750	848	805	514
23	129	113	16	26	237	144	273	682	766	847	804	518
24	125	114	17	22	239	144	372	730	738	811	829	522
25	133	114	20	30	239	145	560	735	752	825	837	521
26	135	114	20	27	242	143	594	741	757	841	833	516
27	135	114	21	20	241	143	627	740	760	833	831	510
28	136	115	19	18	225	142	613	733	759	776	828	500
29	136	116	17	19	-	144	580	741	760	741	828	462
30	135	116	18	18	-	145	544	736	760	682	825	401
31	135	-	18	19	-	144	-	741	-	693	824	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,112	520	125	229	14,110
November	3,718	136	113	124	7,370
December	1,674	117	15	54.0	3,320
Calendar year 1949	131,465	870	11	360	260,800
January	563	30	12	18.2	1,120
February	3,404	242	14	122	6,750
March	6,336	289	142	204	12,570
April	8,434	627	18	281	16,730
May	13,967	741	114	451	27,700
June	21,456	766	580	715	42,560
July	24,578	857	644	793	48,750
August	24,804	847	693	800	49,200
September	18,223	832	401	607	36,140
Water year 1949-50	134,269	857	12	368	266,300

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 1950.

Extremes.--Maximum discharge during year, 283 second-feet Sept. 30 (gage height, 4.71 feet); minimum, 66 second-feet June 12.
Maximum combined discharge during year (Jordan River and Surplus Canal), 618 second-feet June 2; minimum daily, 193 second-feet Apr. 11.
1942-50: 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, 145 second-feet May 18, 1946.

Remarks.--Records good. 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.). For records of combined flow see following page.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	243	234	106	108	121	143	87	119	181	101	175	206
2	234	235	137	118	119	140	76	121	169	108	176	200
3	230	237	133	114	118	136	72	138	141	141	169	195
4	223	247	133	110	117	132	73	134	127	164	172	187
5	222	228	130	109	129	128	75	113	125	193	184	182
6	226	213	129	107	144	132	90	107	127	188	179	176
7	240	212	128	105	142	124	87	103	139	172	172	180
8	262	197	127	107	125	122	84	113	141	173	157	188
9	261	169	127	109	113	126	84	115	108	200	158	198
10	259	204	125	105	107	129	83	105	86	228	148	217
11	251	226	108	107	103	127	82	101	72	246	162	226
12	240	172	107	112	100	124	84	105	89	207	175	245
13	235	158	106	111	96	111	126	107	122	164	184	216
14	230	145	105	105	98	125	169	114	136	160	185	207
15	214	143	108	111	98	129	180	125	154	146	177	203
16	205	142	121	112	102	127	160	139	167	139	175	215
17	202	140	110	117	126	114	163	122	161	139	171	222
18	211	136	107	142	138	102	173	119	154	136	166	230
19	217	137	114	146	142	99	172	128	154	134	153	226
20	215	137	112	135	150	98	171	120	146	136	143	223
21	217	139	107	130	154	92	176	113	146	120	152	221
22	214	146	106	126	146	94	172	106	146	107	147	226
23	211	147	105	129	153	100	142	107	142	131	154	234
24	213	145	107	142	156	99	126	114	129	178	159	252
25	218	141	106	140	151	99	120	121	115	170	163	258
26	247	150	105	134	150	102	110	118	94	182	162	258
27	246	161	105	116	151	102	107	110	117	180	160	255
28	242	164	105	116	152	99	111	114	102	166	179	259
29	241	166	105	117	-	96	124	122	90	162	180	264
30	240	135	106	116	-	96	123	125	96	167	192	279
31	236	-	107	119	-	95	-	164	-	173	212	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,145	262	202	230	14,170
November	5,206	247	135	174	10,330
December	3,537	137	105	114	7,020
Calendar year 1949	60,912	309	84	167	120,800
January	3,675	146	105	119	7,290
February	3,601	156	96	129	7,140
March	3,542	143	92	114	7,030
April	3,602	180	72	120	7,140
May	3,662	164	101	118	7,260
June	3,876	181	72	129	7,690
July	5,011	246	101	162	9,940
August	5,241	212	143	169	10,400
September	6,654	279	176	222	13,200
Water year 1949-50	54,752	279	72	150	108,600

Combined discharge, in second-feet, of Jordan River and Surplus Canal at Salt Lake City, Utah
water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	356	266	257	243	230	435	231	279	543	204	315	315
2	338	267	264	280	222	422	220	293	549	214	310	306
3	333	271	262	260	222	410	208	332	497	241	308	312
4	315	283	259	243	219	394	204	347	454	248	309	317
5	310		257	237	249	367	200	305	417	308	354	296
6	319		256	232	318	355	241	285	423	297	318	286
7	346		254	225	398	338	224	278	502	309	311	294
8	404		251	225	377	333	212	308	534	396	283	314
9	395		248	233	327	345	205	312	409	407	281	351
10	384		263	223	301	353	203	278	326	454	275	397
11	355	a280	258	228	290	343	193	265	274	482	291	428
12	335		253	244	278	324	196	276	291	427	325	477
13	324		248	238	264	284	311	281	318	367	333	403
14	317		243	223	267	333	443	303	348	350	327	392
15	295		252	239	266	351	491	324	456	316	307	393
16	295		299	242	278	345	435	375	436	295	302	399
17	286	275	258	251	351	304	457	379	411	268	294	403
18	303	273	249	332	393	255	489	418	390	280	267	412
19	323	274	273	336	412	245	485	447	391	263	249	394
20	309	273	268	298	441	244	486	460	376	275	233	382
21	318	275	251	279	450	235	476	410	364	239	256	368
22	318	279	245	262	422	235	468	388	362	268	231	345
23	303	275	241	267	434	231	354	385	372	283	241	343
24	a299	270	249	282	444	230	291	413	371	300	247	380
25	a295	262	242	272	449	242	270	437	361	272	252	389
26	a291	260	240	257	446	246	245	417	319	250	247	380
27	a287	258	240	233	450	242	241	400	306	249	238	372
28	a282	254	237	243	450	239	251	396	266	265	298	375
29	a278	257	236	246	-	236	287	415	243	322	306	383
30	a274	270	236	238	-	236	288	401	244	350	313	417
31	a270	-	240	233	-	233	-	510	-	335	336	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,857	404	270	318	19,550
November	8,202	283	254	273	16,270
December	7,829	299	236	253	15,530
Calendar year 1949	119,437	834	195	327	236,900
January	7,844	336	223	253	15,560
February	9,648	450	219	345	19,140
March	9,386	435	230	303	18,620
April	9,305	491	193	310	18,460
May	11,117	510	265	359	22,050
June	11,553	549	243	385	22,920
July	9,534	482	204	308	18,910
August	8,957	354	231	289	17,770
September	11,023	477	286	367	21,860
Water year 1949-50	114,255	549	193	313	226,600

a No gage-height record on Surplus Canal auxiliary gage; discharge interpolated.

The following ditches and tunnel in Utah, each equipped with a water-stage recorder, divert water from Colorado River Basin to Jordan River Basin.

Strawberry River and Willow Creek ditches divert water from Strawberry River Basin to Daniels Creek (a tributary of Provo River). The combined flow is gaged in SE¼ sec. 34, T. 5 S., R. 6 E.

Strawberry tunnel whose west portal is in SW¼ sec. 34, T. 7 S., R. 6 E., diverts water from Strawberry Reservoir on Strawberry River to Diamond Fork. Records furnished by Spanish Fork Water Users' Association and include tunnel seepage.

Upper Hobble Creek ditch diverts water from tributary of Strawberry River to Daniels Creek. Gage is located in NW¼ sec. 15, T. 6 S., R. 6 E.

Lower Hobble Creek ditch diverts water from tributary of Strawberry River to Daniels Creek. Gage is located in NW¼ sec. 15, T. 6 S., R. 6 E.

Transmountain diversions, in acre-feet, water year October 1949 to September 1950

Month	Strawberry River and Willow Creek ditches	Strawberry tunnel	Upper Hobble Creek ditch	Lower Hobble Creek ditch
October	145	2,910	0	0
November	0	298	0	0
December	0	307	0	0
January	0	307	0	0
February	0	278	0	0
March	0	338	0	0
April	0	357	0	0
May	117	2,290	8	35
June	1,020	16,610	324	235
July	825	14,530	23	24
August	387	18,660	0	2
September	235	12,260	0	0
Water year 1949-50	2,730	69,140	355	296

Payson Creek above diversions, near Payson, Utah

Location.--Water-stage recorder, lat. 40°00', long. 111°42', in sec. 3, T. 10 S., R. 2 E., a quarter of a mile above diversion dam for Strawberry Water Users' Association power plant, 5 miles southeast of Payson, and 12 miles upstream from Utah Lake.

Drainage area.--19.6 square miles.

Records available.--July 1947 to September 1950.

Extremes.--Maximum discharge during year, 140 second-feet May 16 (gage height, 2.29 feet); minimum recorded, 4.1 second-feet Feb. 22, but may have been less during period of ice effect or no gage-height record.
1947-50: Maximum discharge, 194 second-feet May 14, 1948 (gage height, 2.69 feet); minimum recorded, 3.0 second-feet Sept. 29, 1947 and Nov. 27, 1947, but may have been less during period of ice effect or no gage-height record.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by several small reservoirs.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.9	5.2	4.8	5.2	*5.0	5.2	7.4	29	32	13	10	8.2
2	7.6	5.2	4.8	5.4	4.9	5.2	7.9	33	29	13	11	8.2
3	7.6	5.2	4.8	5.4	4.8	*5.2	7.9	32	28	12	11	7.9
4	7.6	5.0	4.6	5.3	4.8	5.2	7.4	28	27	12	11	7.9
5	7.4	5.0	4.6	5.2	4.9	5.7	7.4	25	25	11	10	7.9
6	7.4	5.0	4.8	*5.1	5.0	5.4	8.6	24	23	12	10	7.9
7	7.4	5.0	4.8	5.0	5.0	5.2	11	23	24	13	10	8.2
8	6.2	5.0	*5.0	5.0	5.0	5.2	12	22	25	13	10	8.6
9	6.2	5.0	5.0	5.1	4.9	5.2	10	20	24	12	9.3	8.9
10	6.5	5.4	5.0	5.2	4.8	5.2	9.3	22	21	11	9.6	8.9
11	6.0	5.4	5.0	5.2	5.0	5.2	10	24	20	11	10	8.9
12	6.2	5.2	5.1	5.2	5.0	5.2	13	33	20	11	9.6	8.9
13	6.0	5.2	5.2	5.2	5.2	5.2	17	55	20	11	9.3	8.6
14	5.7	5.2	5.4	5.2	4.8	5.2	18	80	20	10	9.3	8.6
15	5.4	5.0	5.2	5.0	4.6	5.2	15	90	20	10	9.3	8.9
16	5.4	5.0	5.2	5.1	4.6	5.2	14	94	20	10	8.9	8.9
17	5.4	5.0	5.2	5.2	4.6	5.2	19	96	19	11	8.9	8.6
18	6.2	5.0	5.2	5.2	4.6	5.4	26	92	19	11	8.9	8.6
19	6.0	5.0	5.2	5.3	4.8	5.7	29	88	18	11	8.9	8.9
20	6.0	5.0	5.2	5.4	4.8	5.7	33	84	18	10	8.9	9.3
21	6.0	5.0	5.0	5.4	4.6	5.4	45	90	17	10	8.9	9.3
22	5.7	5.0	5.0	5.4	4.6	5.4	61	86	16	10	8.9	9.3
23	5.7	4.8	5.0	5.4	4.8	5.4	69	74	16	10	8.6	9.3
24	5.7	5.0	5.2	5.4	4.8	5.7	46	65	15	9.6	8.6	9.3
25	5.7	5.0	5.0	5.3	5.0	6.5	40	53	15	9.3	8.9	8.9
26	5.4	5.0	5.0	5.3	5.0	6.0	45	46	15	9.6	9.3	8.9
27	5.7	5.0	5.0	5.2	5.4	6.0	51	42	14	10	9.3	8.6
28	5.2	5.0	5.0	5.2	5.4	5.7	42	39	14	10	8.9	8.6
29	5.2	5.0	5.0	5.2	-	5.7	30	36	14	10	8.9	8.2
30	5.2	5.0	5.0	5.2	-	*6.0	27	38	13	10	8.6	8.6
31	5.2	-	5.0	5.1	-	6.2	-	34	-	9.6	8.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	190.8	7.9	5.2	6.15	378
November	151.8	5.4	4.8	5.06	301
December	155.3	5.4	4.6	5.01	308
Calendar year 1949	4,975.6	88	-	13.6	9,870
January	162.0	5.4	5.0	5.23	321
February	136.7	5.4	4.6	4.88	271
March	169.9	6.5	5.2	5.48	337
April	738.9	69	7.4	24.6	1,470
May	1,597	96	20	51.5	3,170
June	601	32	13	20.0	1,190
July	336.1	13	9.3	10.8	667
August	291.4	11	8.6	9.40	578
September	259.8	9.3	7.9	8.66	515
Water year 1949-50	4,790.7	96	4.6	13.1	9,510

Peak discharge (base, 80 sec.-ft.).--Apr. 23 (4:30 p.m.) 107 sec.-ft.; May 16 (5:30 p.m.) 140 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 10-13, 19-21, 25, Jan. 3-6, 18-31, Feb. 2-9, Mar. 13. No gage-height record Jan. 7-17, Apr. 21; discharge computed on basis of weather records or interpolated.

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 1950 in reports of Geological Survey. January 1933 to September 1950 in reports of Spanish Fork water commissioner.

Average discharge.--34 years (1908-25, 1933-50), 93.8 second-feet.

Extremes.--Maximum discharge during year, 442 second-feet July 17 (gage height, 4.12 feet); minimum, 21 second-feet Dec. 14.
1908-25, 1933-50: Maximum discharge observed, 1,250 second-feet May 26, 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	a44	40	42	*b46	86	86	161	284	86	45	32
2	41	a44	37	44	b45	80	111	156	262	86	40	32
3	40	a44	37	42	b45	82	113	161	240	86	39	35
4	39	a44	33	b40	b50	80	88	161	217	84	38	37
5	39	a44	39	b40	b55	94	92	157	202	84	38	36
6	37	a44	38	b40	60	92	108	154	185	84	37	35
7	39	a44	38	a40	65	72	128	156	193	83	39	33
8	42	a44	*41	a42	55	65	146	148	202	83	37	43
9	40	a44	41	*a44	52	69	133	139	185	79	35	40
10	42	a50	41	b45	53	69	113	130	169	76	35	38
11	41	46	33	b44	57	68	111	135	157	79	39	38
12	40	44	27	44	55	62	125	144	148	72	40	36
13	40	45	28	44	51	54	146	159	142	69	40	37
14	39	46	29	45	52	64	150	183	132	66	37	36
15	39	45	b30	b44	*53	64	128	215	128	64	33	36
16	40	45	34	b45	54	62	126	249	123	64	34	37
17	40	44	36	49	57	68	152	286	118	95	34	35
18	45	44	39	54	58	76	177	312	113	a75	33	33
19	54	44	40	53	60	72	179	308	106	65	34	31
20	49	44	36	52	60	82	183	305	101	59	34	33
21	44	43	34	52	60	72	213	320	98	62	35	40
22	43	43	35	54	58	72	235	344	97	62	35	35
23	42	43	38	*58	62	72	253	368	95	60	34	36
24	43	44	38	59	66	75	244	381	95	55	37	38
25	42	42	34	51	76	89	215	389	94	53	40	40
26	41	41	b34	b48	82	82	206	365	94	52	40	38
27	41	41	b33	b49	88	77	206	350	94	51	40	36
28	41	41	b34	b50	90	75	202	342	90	50	38	31
29	42	42	b35	b52	-	70	183	324	89	50	36	30
30	a43	41	b37	53	-	70	167	312	88	50	38	33
31	a43	-	b39	b50	-	72	-	305	-	48	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,292	54	37	41.7	2,560
November	1,314	50	41	43.8	2,610
December	1,108	41	27	35.7	2,200
Calendar year 1949	28,337	360	27	77.6	56,210
January	1,469	59	40	47.4	2,910
February	1,665	90	45	59.5	3,300
March	2,287	94	54	73.8	4,540
April	4,719	253	86	157	9,360
May	7,619	389	130	246	15,110
June	4,341	284	88	145	8,610
July	2,132	95	48	68.8	4,230
August	1,147	45	33	37.0	2,280
September	1,065	43	30	35.5	2,110
Water year 1949-50	30,158	389	27	82.6	59,820

Peak discharge (base, 330 sec.-ft.).--May 25 (4:30 a.m.) 411 sec.-ft.; July 17 (10 p.m.) 442 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of discharge measurements, weather records, and records for Spanish Fork at Castilla and Diamond Fork near Thistle.

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 Gold Springs, 1 mile upstream from diversion dam of Bureau of Reclamation, 1½ miles northwest of Castilla, and 3 miles downstream from Diamond Fork.

Drainage area.--670 square miles.

Records available.--May 1919 to September 1925 and October 1936 to September 1950 in reports of Geological Survey. January 1933 to September 1950 in reports of Spanish Fork water commissioner.

Average discharge.--23 years (1919-25, 1933-50), 214 second-feet.

Extremes.--Maximum discharge during year, 679 second-feet June 29, 30 (gage height, 5.44 feet); minimum not determined, probably occurred during period of doubtful gage-height record.
1919-25, 1933-50: Maximum daily discharge, 1,520 second-feet May 22, 1920; minimum, 24 second-feet Jan. 19, 1943.

Remarks.--Records good except those for periods of doubtful or no gage-height record and indefinite stage-discharge relation, which are fair. Several small diversions above station for irrigation. Flow is materially increased by water diverted by tunnel from Strawberry Reservoir (capacity, 270,000 acre-feet) in Colorado River Basin into Diamond Fork for irrigation of lands in Jordan River Basin (see p. 109).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	208	72	69	64	a78	124	166	304	h540	648	223	377
2	200	72	69	72	a76	120	223	301	500	581	257	348
3	175	74	69	66	a78	122	223	301	510	497	279	324
4	180	71	69	60	81	118	164	296	517	477	298	316
5	198	71	71	60	106	138	171	284	487	510	268	313
6	239	69	69	60	122	142	200	273	458	510	257	330
7	290	69	69	60	118	110	254	276	471	557	282	365
8	290	69	71	60	75	99	296	268	408	471	307	386
9	236	71	67	61	66	101	249	252	313	316	345	353
10	196	81	74	63	71	104	196	236	265	257	377	298
11	a86	82	64	63	84	102	191	244	262	228	395	249
12	a80	72	d50	66	84	95	223	260	293	175	345	203
13	a76	74	d52	69	77	75	276	290	365	206	336	173
14	h72	74	d54	72	82	95	304	336	452	246	339	160
15	69	74	d56	64	84	93	254	386	513	262	353	162
16	69	72	d60	64	88	91	254	436	537	307	389	166
17	69	72	d62	74	90	108	304	497	500	414	433	147
18	77	72	d64	82	90	128	345	540	497	436	471	155
19	104	72	64	84	90	112	342	517	500	404	471	196
20	88	72	63	81	95	136	353	513	510	392	465	260
21	79	71	61	84	93	116	408	561	530	389	420	333
22	75	71	61	88	86	118	465	a560	561	342	417	330
23	74	69	61	e92	95	118	487	a570	585	282	449	298
24	74	75	63	e90	101	120	471	574	592	216	449	271
25	74	74	61	e88	110	157	404	581	602	249	445	257
26	71	71	60	a78	120	140	392	606	598	318	433	271
27	69	71	61	a80	130	126	395	616	606	353	398	282
28	69	72	61	a82	136	118	389	620	626	353	350	260
29	72	71	63	a84	-	114	342	620	665	293	353	262
30	72	71	63	a86	-	120	313	634	672	220	362	252
31	72	-	63	a82	-	126	-	a600	-	200	408	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,803	290	69	123	7,540
November	2,171	82	69	72.4	4,310
December	1,964	74	50	63.4	3,900
Calendar year 1949	78,813	637	36	216	156,300
January	2,279	92	60	73.5	4,520
February	2,606	136	66	93.1	5,170
March	3,586	157	75	116	7,110
April	9,054	487	164	302	17,960
May	13,352	634	236	431	26,480
June	14,935	672	262	498	29,620
July	11,109	648	175	358	22,030
August	11,374	471	223	367	22,560
September	8,097	386	147	270	16,060
Water year 1949-50	84,330	672	50	231	167,300

a No gage-height record; discharge computed on basis of weather records and records for Spanish Fork and Diamond Fork near Thistle.
d Doubtful gage-height record; discharge computed as explained in footnote a.
e Stage-discharge relation indefinite; discharge computed as explained in footnote a.
h Computed from staff-gage readings.

Spanish Fork near Lake Shore, Utah

Location.--Water-stage recorder and low-water timber 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 1950. December 1903 to July 1907 and March 1909 to September 1925 at site 3 miles upstream.

Average discharge.--29 years (1904-6, 1909-19, 1920-25, 1938-50), 88.5 second-feet.

Extremes.--Maximum discharge during year, 366 second-feet May 18; no flow for several periods.

1903-7, 1909-25, 1938-50: Maximum discharge observed, 1,430 second-feet May 11, 1909; practically no flow at times during irrigation season of most years.

Remarks.--Records fair except those for periods of ice effect, backwater from vegetation, or no gage-height record, which are poor. Flow regulated by many diversions for irrigation and by hydroelectric power plant. During latter part of irrigation season only waste and return waters pass gage. Station is below all diversions. Discharge includes that of overflow canal constructed in winter of 1947-48, which diverts part of high flow from river about 1 mile above gage.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	74	76	80		140	172	59	2.0			0
2	0	74	71	89		132	214	75	3.7			0
3	0	76	72	86		133	257	76				0
4	0	76	64		*b105		195	126				0
5	0	74	69				196	147		a0.5		0
6	0	73	73	(*)			216	170				0
7	0	75	67		126		266	201				0
8	4.0	74	68		114		312	227	a1.5			0
9	14	72	72		100		300	223				0
10	24	76	77		101		251	217		.3		0
11	53	91	a70	b80	110		235	213		.3		0
12	68	a85	a63		110		251	215		.2		0
13	72	a80	a65		100		294	228		.2		0
14	70	a80	a67		104		297	265		.3		0
15	61	a80	a69		106		229	296	1.0	.2		0
16	61	a80	a71		106	a129	219	314	1.0	.2		0
17	65	84	a73		108		234	320	1.7	.4		0
18	70	80	74		108		262	331	1.0	19		0
19	99	79	76	96	110		250	284	1.0			0
20	90	80	77	93	115		231	207	.8			0
21	82	76	a74	95	112		232	188	1.0	a.2		0
22	79	78	a74	100	110		227	144	.9			0
23	77	78	77	104	112		233	a8	1.0			0
24	75	82	80	112	117		230	a5	1.3	h.1		0
25	73	80	a77	98	126		a21	1.8		.2		0
26	67	76	a75	82	132		a17	2.2	a1	1.2		
27	60	76	*73		140		14	2.2		0		
28	68	75	b71		146		38	3.6		0		c1.5
29	70	76	b72	b105	-		50	2.0	.9	0		
30	74	74	b73		-	140	59	4.2	a.5	0		
31	75	-	74		-	142	-	3.1	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,551.0	99	0	50.0	3,080
November	2,334	91	72	77.8	4,630
December	2,234	80	63	72.1	4,430
Calendar year 1949	23,251.5	313	0	63.7	46,120
January	2,760	-	-	89.0	5,470
February	3,143	146	-	112	6,230
March	4,041	142	-	130	8,020
April	6,002	312	14	200	11,900
May	4,558.1	331	1.8	147	9,040
June	39.8	-	-	1.33	79
July	28.1	19	0	.91	56
August	0	0	0	0	0
September	7.5	-	0	.25	15
Water year 1949-50	26,698.5	331	0	73.1	52,950

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for nearby stations, or interpolated.
b Stage-discharge relation affected by ice.
c Variable backwater from vegetation and debris.
h Computed from staff-gage reading.

Diamond Fork near Thistle, Utah

Location.--Water-stage recorder, lat. 40°03'38", long. 111°27'06", in approximately center of sec. 2, T. 9 S., R. 4 E., about 1 mile downstream from Little Diamond Creek, 4.2 miles upstream from mouth, and 5.2 miles northwest of Thistle. Prior to Oct. 6 at site 2.7 miles downstream at different datum.

Drainage area.--146 square miles.

Records available.--October 1949 to September 1950. April 1940 to September 1949 at site 2.7 miles downstream. December 1907 to September 1917 at site 4 miles downstream.

Average discharge.--13 years (1914-17, 1940-50), 110 second-feet.

Extremes.--Maximum discharge during year not determined, occurred during period of doubtful gage-height record; minimum daily, 13 second-feet Dec. 12, 13, Jan. 4-8.
1907-17, 1940-50: Maximum discharge observed, 766 second-feet Aug. 8, 1949 (gage height, 3.36 feet, site and datum then in use); minimum, 1.0 second-foot Nov. 9, 1948 (gage height, 1.02 feet, site and datum then in use).

Remarks.--Records good except those for periods of ice effect or doubtful or no gage-height record, which are fair. Small diversions above station for irrigation. Beginning in 1915, flow supplemented by water diverted by tunnel from Strawberry Reservoir in Colorado River Basin for irrigation in Jordan River Basin (see p. 109). Usable capacity for Strawberry Reservoir, 270,000 acre-feet.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	20	15	16	a17	28	53	126	292	465	175	338
2	149	20	15	15	*16	28	74	130	264	415	215	302
3	133	20	15	14	16	28	70	126	306	365	220	271
4	143	20	16	a13	18	28	56	121	323	365	250	261
5	161	20	16	13	a20	31	58	117	288	415	215	254
6	196	20	17	a13	a21	33	69	115	281	430	215	278
7	232	20	17	13	a21	28	83	113	264	440	250	313
8	219	19	*17	13	a20	26	86	108	170	300	270	327
9	168	20	17	*a14	a19	28	75	103	111	190	320	290
10	121	25	15	a14	a19	29	62	101	81	a170	340	241
11	28	22	14	a14	a21	28	59	105	90	121	330	196
12	25	19	13	a14	a21	26	66	111	a140	95	288	147
13	24	20	13	a15	a20	27	105	121	a240	139	284	126
14	23	19	14	a16	*22	26	105	135	320	173	295	115
15	22	19	15	a15	21	25	91	152	385	184	330	121
16	21	18	15	a16	21	25	95	a170	405	226	360	121
17	21	18	15	a19	21	31	103	a190	350	274	400	105
18	28	18	16	*22	21	36	103	213	360	341	430	121
19	38	18	16	21	23	32	105	210	370	313	420	173
20	26	18	15	20	23	35	111	198	375	327	410	229
21	24	18	15	20	22	31	130	190	405	323	370	281
22	23	18	15	21	21	32	155	190	455	261	382	278
23	23	17	16	22	23	33	190	193	485	202	416	244
24	22	18	16	18	24	34	a190	a192	490	145	412	216
25	23	18	15	17	26	41	a180	190	460	196	405	201
26	21	18	14	16	28	36	176	244	460	258	386	219
27	21	18	14	18	30	35	168	a260	500	295	341	232
28	20	*17	15	19	31	33	162	a280	510	284	302	216
29	21	18	15	18	-	31	144	a300	545	210	306	219
30	20	18	16	a18	-	34	130	a310	545	142	313	201
31	21	-	16	a17	-	37	-	a305	-	135	371	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,171	232	20	70.0	4,310
November	571	25	17	19.0	1,130
December	473	17	13	15.3	938
Calendar year 1949	45,530	540	-	125	90,300
January	514	22	13	16.6	1,020
February	606	31	16	21.6	1,200
March	955	41	25	30.8	1,890
April	3,254	190	53	108	6,450
May	5,419	310	101	175	10,750
June	10,270	545	81	342	20,370
July	8,199	465	95	264	16,260
August	10,021	430	175	323	19,880
September	6,647	338	105	222	13,180
Water year 1949-50	49,100	545	13	135	97,380

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of discharge measurements, weather records, and records for Strawberry tunnel at West Portal near Thistle and Spanish Fork near Thistle and Castilla.

Note.--Stage-discharge relation affected by ice Dec. 2-5, Dec. 10 to Jan. 3, Jan. 5, 7, 8, 25-29, Feb. 2-4. Doubtful gage-height record Apr. 22, 23, June 15 to July 9, Aug. 1-11, 15-21; discharge computed on basis of records for Strawberry tunnel at West Portal, near Thistle, and Spanish Fork near Castilla.

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 1950 in reports of Geological Survey. October 1922 to September 1925 and 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, 497 second-feet June 30; minimum daily, 5.0 second-feet (seepage) Oct. 11 through early winter months.
1922-25, 1932-50: Maximum daily discharge, 595 second-feet July 9, 1923; minimum daily observed, 4 second-feet many times when no water is being diverted from Strawberry Reservoir.

Remarks.--Records good. Records show water diverted from Strawberry Reservoir (in Colorado River Basin) plus tunnel seepage for use on lands of Strawberry project.

Cooperation.--Records furnished by Spanish Fork Water Users' Association.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130							6	155	428	156	305
2	113							6	160	383	200	283
3	100							6	204	324	209	255
4	108							6	227	326	231	252
5	133							6	203	373	187	251
6	177							6	202	391	197	278
7	213							6	181	406	229	306
8	190							6	88	263	254	299
9	134							6	33	144	297	267
10	62							6	8.0	123	322	205
11	5							6	33	69	326	171
12	5							6	91	61	266	124
13	5							6	191	118	269	111
14	5							6	281	146	282	100
15	5							6	331	167	307	114
16	5	5	5	5	5	5.5	6	6	348	218	340	110
17	5							6	307	300	379	84
18	5							6	315	338	412	110
19	5							6	322	281	402	171
20	5							6	333	301	393	225
21	5							6	363	282	346	277
22	5							6	404	228	361	258
23	5							6	434	168	384	232
24	5							6	428	118	374	195
25	5							14	411	186	372	187
26	5							112	413	246	354	210
27	5							135	451	271	317	218
28	5							163	464	239	283	197
29	5					-		191	494	187	296	207
30	5					-		200	497	120	308	177
31	5	-				-	-	196	-	123	355	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,465	213	5	47.3	2,910
November	150	-	-	5	298
December	155	-	-	5	307
Calendar year 1949	32,596	500	-	89.3	64,660
January	155	-	-	5	307
February	140	-	-	5	278
March	170.5	-	-	5.5	338
April	180	-	-	6	357
May	1,155	200	6	37.3	2,290
June	8,372.0	497	8.0	279	16,610
July	7,328	428	61	236	14,530
August	9,408	412	156	303	18,660
September	6,183	306	84	206	12,260
Water year 1949-50	34,861.5	497	-	95.5	69,140

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.

Drainage area.--105 square miles.

Records available.--March 1904 to December 1916 (1906-7 gage heights only), April 1945 to September 1950.

Average discharge.--15 years (1904-5, 1907-16, 1945-50), 55.6 second-feet.

Extremes.--Maximum discharge during year, 266 second-feet Apr. 23 (gage height, 3.64 feet); minimum, 7.9 second-feet Aug. 5.
1904-16, 1945-50: Maximum discharge observed, 824 second-feet Apr. 29, 1916 (gage height, 6.40 feet, site and datum then in use); minimum, 1.4 second-feet Feb. 12, 1946.

Remarks.--Records good except those for periods 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, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	20	20	24	21	22	42	127	119	42	22	19
2	19	21	20	24	18	27	58	126	108	42	22	19
3	19	21	20	23	20	23	77	122	97	a41	21	23
4	19	20	20	21	20	27	66	119	90	a40	23	20
5	19	20	20	22	23	33	67	111	83	a38	20	20
6	19	20	21	19	24	37	78	110	92	a40	19	19
7	20	20	21	20	25	36	121	108	100	a45	24	20
8	22	20	21	20	24	35	163	106	94	a45	22	23
9	22	20	20	21	23	34	130	98	75	a38	20	24
10	23	22	22	20	23	34	94	102	66	29	20	24
11	23	20	22	20	23	34	86	113	66	29	24	24
12	22	20	22	21	23	31	103	126	63	30	25	24
13	22	21	21	22	22	30	144	144	62	27	24	24
14	22	22	22	22	22	32	156	170	63	25	22	23
15	22	20	22	20	23	30	121	193	68	28	21	23
16	22	20	22	22	22	30	126	208	68	27	23	23
17	22	20	23	22	23	31	167	225	62	27	24	23
18	22	20	23	22	18	35	193	215	56	30	22	23
19	23	20	23	21	24	34	176	206	53	32	21	23
20	22	20	24	22	25	36	182	189	47	30	20	22
21	23	20	23	22	25	36	211	179	43	29	21	22
22	22	20	24	23	24	37	226	180	43	24	21	22
23	22	20	23	23	24	36	237	188	41	22	20	22
24	22	20	23	24	22	36	222	175	43	22	20	22
25	21	20	23	23	20	39	182	166	43	21	20	23
26	21	20	23	20	18	39	174	152	41	22	20	22
27	20	20	23	23	18	38	176	147	42	25	19	22
28	20	20	23	23	20	37	173	144	41	25	18	20
29	20	20	23	22	-	35	147	134	40	25	18	21
30	20	20	23	23	-	37	132	121	41	25	20	20
31	20	-	23	20	-	37	-	121	-	22	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	654	23	19	21.1	1,500
November	607	22	20	20.2	1,200
December	683	24	20	22.0	1,350
Calendar year 1949	16,440	299	-	45.0	32,600
January	674	24	19	21.7	1,340
February	617	25	18	22.0	1,220
March	1,038	39	22	33.5	2,060
April	4,230	237	42	141	8,390
May	4,625	225	98	149	9,170
June	1,950	119	40	65.0	3,870
July	947	45	21	30.5	1,880
August	657	25	18	21.2	1,300
September	659	24	19	22.0	1,310
Water year 1949-50	17,341	237	18	47.5	34,390

Peak discharge (base, 120 sec.-ft.).--Apr. 7 (11 p.m.) 174 sec.-ft.; Apr. 23 (11 p.m.) 266 sec.-ft.; May 17 (8 p.m.) 234 sec.-ft.
a No gage-height record; discharge computed on basis of records for Payson Creek near Payson.

Provo River near Kamas, Utah

Location.--Water-stage recorder, lat. 40°35', long. 111°00'30", in NE¼ sec. 2, T. 3 S., R. 8 E., 3 miles upstream from Soapstone Creek and 14 miles east of Kamas.
Records available.--August 1949 to September 1950.
Extremes.--1949: Maximum discharge during period August to September, 66 second-feet Aug. 17-19 (gage height, 1.52 feet); minimum daily, 21 second-feet Aug. 31, Sept. 1-3.
1949-50: Maximum discharge during water year, 591 second-feet June 1 (gage height, 3.26 feet); minimum not determined, occurred during period of no gage-height record.
Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. No diversions above station. Flow regulated by several small lakes at headwaters which have dams and outlet works. Combined regulated capacity, 10,841 acre-feet. Station is immediately above outlet of Duchesne tunnel now under construction.

Discharge, in second-feet, 1949-50

1949

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	21	9	-	23	17	64	53	25	25	46
2	-	21	10	65	25	18	66	52	26	23	41
3	-	21	11	60	25	19	66	53	27	22	37
4	-	23	12	54	35	20	65	54	28	22	39
5	-	25	13	53	59	21	60	58	29	22	40
6	-	25	14	52	58	22	55	56	30	22	35
7	-	24	15	54	55	23	48	55	31	21	-
8	-	23	16	58	54	24	29	54			

1949-50

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	9.1			5.9	5.8	8.1	39	480	157	100	36
2	22	9.1			5.8	6.0	9.4	37	411	144	94	32
3	7.3	9.1			5.6	6.2	8.8	35	300	128	89	30
4	6.5	9.1			5.5	6.4	8.6	34	317	108	89	22
5	6.8	9.1	(*)	(*)	5.4	6.4	7.8	34	396	91	87	16
6	7.3	8.5			5.5	6.5	8.8	32	441	87	86	16
7	7.8	*8.8			*5.6	7.5	12	30	363	86	87	17
8	7.8				5.9	6.5	14	28	246	89	84	18
9	8.1				6.0	6.5	12	26	217	93	82	16
10	8.1				5.9	6.4	11	26	256	82	81	18
11	8.5				5.8	6.2	11	30	334	78	81	17
12	8.8				5.8	6.2	13	36	381	98	70	16
13	9.8				5.8	6.2	17	50	381	110	70	13
14	9.4				5.8	6.3	20	72	396	104	68	12
15	8.8				5.8	6.4	17	93	389	102	66	12
			5.8	6.8								
16	8.1				5.6	6.6	18	124	392	102	65	11
17	8.1				5.5	6.8	26	160	396	96	64	15
18	12				5.5	7.0	32	166	404	102	61	19
19	12	8.2			5.5	7.0	32	160	392	98	60	13
20	10				5.5	7.2	38	186	370	91	60	12
21	10				5.5	6.8	55	239	370	87	59	14
22	12				5.5	6.8	75	289	360	87	55	11
23	11				5.5	6.8	86	338	324	86	52	12
24	11				5.5	6.8	76	356	303	98	51	12
25	10				5.6	7.3	64	342	239	112	50	11
26	10				5.8	7.3	60	314	183	112	49	9.8
27	10				*5.8	*7.5	58	338	217	112	48	9.1
28	9.4				5.8	7.4	52	352	220	112	44	8.5
29	9.8				-	7.2	46	342	214	108	40	8.1
30	9.1			*6.2	-	7.0	42	419	195	104	44	7.8
31	9.4	-		5.9	-	7.3	-	465	-	102	42	-

* Winter discharge measurement made on this day.
Note.--No gage-height record Nov. 8 to Jan. 29, Feb. 3-6, 13; discharge computed on basis of discharge measurements, weather records, and records for Provo River near Charleston and Hailstone. Stage-discharge relation affected by ice Jan. 30 to Feb. 2, Feb. 7-12, Feb. 14 to Mar. 18, Mar. 20, 28, 29, Apr. 4.

Monthly discharge, in second-feet, 1949-50

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
August 10-31, 1949	1,006	66	21	45.7	2,000
September	1,190	59	21	39.7	2,360
Water year	-	-	-	-	-
October 1949	322.9	34	6.5	10.4	640
November	251.4	9.1	-	8.38	499
December	179.8	-	-	5.80	357
Calendar year	-	-	-	-	-
January 1950	209.3	-	-	6.75	415
February	158.7	6.0	5.4	5.67	315
March	208.3	7.5	5.8	6.72	413
April	938.5	86	7.8	31.3	1,860
May	5,192	465	26	167	10,300
June	9,887	480	183	330	19,610
July	3,166	157	78	102	6,280
August	2,078	100	40	67.0	4,120
September	464.3	36	7.8	15.5	921
Water year 1949-50	23,056.2	480	-	63.2	45,730

Provo River near Hailstone, Utah

Location.--Water-stage recorder, lat. 40°36', long. 111°22', in SE¼ sec. 34, T. 2 S., R. 5 E., Salt Lake meridian, 3 miles upstream from Ross Creek and Hailstone.

Records available.--October 1949 to September 1950.

Extremes.--Maximum discharge during year, 2,150 second-feet June 2 (gage height, 6.24 feet); minimum, 44 second-feet Sept. 4, but may have been less during periods of ice effect or no gage-height record.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81	75	58			72	124	312	1,720	475	221	54
2	74	77	58			79	150	337	1,810	428	204	52
3	65	75	58	(*)		85	140	347	1,320	408	183	52
4	56	74	57			91	110	302	1,190	428	178	50
5	53	72	*60			104	122	281	1,340	377	170	48
6	57	70	62			106	156	264	1,560	358	163	54
7	54	70	65			89	206	251	1,670	368	161	58
8	60	74	67			81	254	244	1,170	391	156	60
9	69	72	67			91	209	231	915	377	151	63
10	74	108	64			91	170	228	845	345	153	64
11	77	95	60		65	85	167	251	965	341	153	79
12	79	74	50			72	194	271	1,130	319	148	86
13	85	81	55			63	251	330	1,110	329	140	72
14	83	83	55			85	278	421	1,170	319	135	67
15	79	83	53			79	225	528	1,140	307	126	66
16	75	79			55	72	244	627	1,140	285	122	64
17	77	79				95	319	795	1,130	258	115	67
18	101	77				106	369	870	1,080	264	109	66
19	127	75				91	355	850	1,030	267	105	67
20	110	72				95	384	880	975	270	103	70
21	101	72			62	85	487	980	940	241	95	76
22	91	65			60	93	596	1,170	950	235	86	72
23	91	63			62	91	631	1,320	840	232	84	82
24	91	75	55		63	95	588	1,330	795	232	81	86
25	89	70			67	110	479	1,450	703	244	75	81
26	87	67			72	95	440	1,340	567	241	77	72
27	87	69			*83	85	425	1,350	551	244	67	64
28	85	67			87	75	417	1,460	547	244	63	64
29	85	65			-	70	369	1,350	575	244	63	61
30	81	60		(*)	-	81	326	1,420	512	226	58	64
31	75	-			-	95	-	1,700	-	215	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,499	127	53	80.6	4,960
November	2,238	108	60	74.6	4,440
December	1,769	67	-	57.1	3,510
Calendar year	-	-	-	-	-
January	1,705	-	-	55.0	3,380
February	1,856	87	-	66.3	3,680
March	2,707	110	63	87.3	5,370
April	9,185	631	110	306	18,220
May	23,490	1,700	228	758	46,590
June	31,390	1,810	512	1,046	62,260
July	9,512	475	215	307	18,870
August	3,798	221	55	123	7,530
September	1,981	86	48	66.0	3,930
Water year 1949-50	92,132	1,810	-	252	182,700

* Winter discharge measurement made on this day.

Note.--No gage-height record Jan. 9-20, Jan. 25 to Feb. 19; discharge computed on basis of discharge measurements, weather records, and records for Provo River near Charleston. Stage-discharge relation affected by ice Dec. 12 to Jan. 8, Jan. 21-24, Feb. 20.

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 1950 in reports of Geological Survey (discontinued). October 1938 to September 1945, collected by Bureau of Reclamation, available in files of Salt Lake City district office, Geological Survey.

Average discharge.--12 years (1938-50), 192 second-feet.

Extremes.--Maximum discharge during year, 1,740 second-feet June 2 (gage height, 4.27 feet); minimum, 30 second-feet Sept. 4.
1945-50: Maximum discharge, that of June 2, 1950; minimum, 13 second-feet Oct. 7, 1948.

Remarks.--Records good except those for periods of ice effect or doubtful or fragmentary gage-height record, which are fair. Many diversions above station for irrigation. Records include flow of Weber-Provo diversion canal (see pp.117, 118). Flow also slightly affected by small lakes near headwaters that serve as reservoirs.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	132	99	119	110	168	179	208	1,560	282	86	39
2	61	132	96	129	b108	160	226	217	1,570	239	79	39
3	57	132	96	105	105	176	235	249	1,200	208	69	36
4	53	129	91	d102	108	187	176	297	961	d200	57	33
5	53	129	94	96	149	196	179	297	1,060	d196	57	33
6	57	129	105	102	176	204	213	292	1,240	f191	55	34
7	76	129	108	94	254	153	262	287	1,350	200	49	37
8	91	136	110	108	187	132	353	297	1,050	226	47	42
9	113	132	113	123	153	139	317	277	794	226	49	43
10	119	282	119	129	146	149	239	258	682	204	45	43
11	129	235	96	116	146	142	221	268	734	226	49	45
12	142	160	81	119	132	119	249	272	905	183	51	49
13	142	142	94	119	108	102	297	292	926	183	72	45
14	142	142	96	110	123	126	358	297	954	183	88	45
15	139	139	85	116	123	129	302	384	940	179	86	47
16	132	136	108	113	116	119	287	439	898	153	86	47
17	139	132	105	119	119	136	343	589	863	113	88	47
18	164	132	108	172	108	168	411	657	842	102	83	47
19	217	129	110	183	113	146	395	644	815	129	74	47
20	179	126	102	164	119	157	401	650	801	139	72	49
21	168	123	94	149	123	136	455	708	728	119	81	57
22	153	113	94	157	113	136	541	836	734	102	83	63
23	146	108	102	172	123	136	571	996	657	99	79	75
24	149	110	110	176	139	136	559	1,020	638	96	74	79
25	153	116	94	129	157	187	478	1,180	577	105	69	74
26	146	110	99	105	176	164	406	1,100	478	116	64	69
27	146	108	102	129	*191	146	307	1,100	428	123	57	64
28	142	105	102	129	208	142	292	1,220	411	116	47	64
29	139	105	102	116	-	126	268	1,180	343	113	43	63
30	139	108	108	110	-	136	230	1,250	353	99	45	67
31	136	-	105	*116	-	142	-	1,510	-	88	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,886	217	53	125	7,710
November	4,041	282	105	135	8,020
December	3,126	119	81	101	6,200
Calendar year 1949	82,635	1,230	-	226	163,900
January	3,926	183	94	127	7,790
February	3,933	254	105	140	7,800
March	4,595	204	102	148	9,110
April	9,770	571	176	326	19,380
May	19,271	1,510	208	622	38,220
June	25,492	1,570	343	850	50,560
July	4,938	282	88	159	9,790
August	2,024	88	40	65.3	4,010
September	1,529	79	33	51.0	3,030
Water year 1949-50	86,531	1,570	33	237	171,600

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of diversion records and records for Provo River near Kamas and near Hailstone.
f Fragmentary gage-height record; discharge computed from partly estimated gage height.

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, a quarter of 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 1950.

Extremes.--Maximum contents observed during year, 152,800 acre-feet June 29, 30 (elevation, 5,417.08 feet); minimum, 118,000 acre-feet Oct. 5, 6 (elevation, 5,402.79 feet).
1940-50: Maximum contents, 154,000 acre-feet June 19, 1946 (elevation, 5,417.65 feet); 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 includes dead storage and is 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118,700	121,400	122,100	120,500	118,900	119,200	120,900	134,700	150,400	152,700	145,100	133,400
2	118,500	121,400	122,000	120,400	118,800	119,400	121,000	134,800	150,600	152,600	144,700	132,900
3	118,300	121,500	121,900	120,400	118,700	119,500	121,200	134,900	150,100	152,400	144,400	132,500
4	118,100	121,500	121,800	120,200	118,600	119,700	121,300	135,100	149,600	152,300	144,000	132,000
5	118,000	121,500	121,700	120,100	118,700	119,800	121,500	135,200	149,600	152,200	143,600	131,500
6	118,000	121,500	121,700	119,900	118,900	120,000	121,700	135,400	150,200	152,100	143,300	131,100
7	118,100	121,500	121,600	119,800	119,400	120,100	122,100	135,600	151,200	152,000	142,900	130,700
8	118,300	121,500	121,500	119,700	119,400	120,200	122,500	136,000	151,400	151,900	142,500	130,200
9	118,500	121,600	121,500	119,600	119,400	120,200	123,100	136,400	151,100	151,800	142,100	129,800
10	118,600	122,200	121,500	119,500	119,400	120,300	123,300	136,800	150,800	151,700	141,700	129,400
11	118,800	122,500	121,500	119,400	119,500	120,200	123,600	137,000	150,900	151,700	141,300	128,900
12	119,000	122,600	121,400	119,300	119,500	120,200	123,900	137,200	151,300	151,600	141,000	128,600
13	119,200	122,600	121,300	119,200	119,400	120,200	124,200	137,300	151,800	151,500	140,600	128,300
14	119,300	122,600	121,200	119,100	119,400	120,200	124,700	137,500	152,100	151,400	140,300	127,900
15	119,300	122,600	121,100	118,900	119,400	120,200	125,100	137,900	152,200	151,200	139,900	127,500
16	119,500	122,600	121,100	119,100	119,300	120,200	125,600	138,500	152,100	150,900	139,600	127,200
17	119,800	122,600	121,100	119,200	119,200	120,300	126,000	139,400	152,100	150,600	139,200	126,900
18	120,200	122,600	121,200	119,300	119,100	120,300	126,500	140,200	152,300	150,400	138,900	126,600
19	120,500	122,600	121,300	119,300	118,900	120,300	127,100	141,000	152,500	150,000	138,600	126,300
20	120,600	122,600	121,300	119,300	118,900	120,400	127,800	141,800	152,600	149,700	138,200	126,000
21	120,700	122,600	121,300	119,300	118,800	120,400	128,700	142,500	152,600	149,400	137,900	125,600
22	120,800	122,500	121,300	119,400	118,700	120,500	129,700	143,600	152,600	149,100	137,600	125,300
23	120,900	122,500	121,200	119,400	118,700	120,600	130,900	145,000	152,500	148,700	137,300	125,000
24	121,000	122,400	121,200	119,400	118,700	120,600	131,900	146,200	152,500	148,300	136,900	124,800
25	121,100	122,400	121,100	119,400	118,800	120,700	132,800	147,400	152,500	147,900	136,500	124,500
26	121,200	122,400	121,000	119,400	118,900	120,700	133,300	148,100	152,600	147,500	136,100	124,300
27	121,200	122,300	120,900	119,300	118,900	120,700	133,600	148,300	152,600	147,100	135,700	124,000
28	121,300	122,300	120,800	119,200	119,100	120,700	133,900	148,500	152,700	146,700	135,300	123,800
29	121,300	122,200	120,700	119,200	-	120,700	134,200	148,800	152,800	146,300	134,800	123,500
30	121,400	122,200	120,600	119,100	-	120,700	134,500	149,100	152,800	145,900	134,400	123,300
31	121,400	-	120,500	119,100	-	120,700	-	149,700	-	145,400	133,900	-

Monthly elevation and contents, water year October 1949 to September 1950

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	5,403.15	118,800	-
Oct. 31	5,404.30	121,400	+2,600
Nov. 30	5,404.65	122,200	+800
Dec. 31	5,403.92	120,500	-1,700
Calendar year 1949	-	-	+12,300
Jan. 31	5,403.25	119,100	-1,400
Feb. 28	5,403.25	119,100	0
Mar. 31	5,404.00	120,700	+1,600
Apr. 30	5,409.95	134,500	+13,800
May 31	5,415.92	149,700	+15,200
June 30	5,417.08	152,800	+3,100
July 31	5,414.30	145,400	-7,400
Aug. 31	5,409.70	133,900	-11,500
Sept.30	5,405.15	123,300	-10,600
Water year 1949-50	-	-	+4,500

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 1950.

Average discharge.--38 years, 352 second-feet. (Since 1932 flow includes that of Weber-Provo diversion canal.)

Extremes.--Maximum discharge during year, 1,920 second-feet June 3 (gage height, 6.04 feet); minimum, 193 second-feet Oct. 7.
1911-50: Maximum discharge observed, 3,180 second-feet June 11, 1921; minimum, 23 second-feet Mar. 11, 1948.

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. 117).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	305	260	262	283	286	299	302	483	1,570	550	466	417
2	316	260	262	294	283	299	305	487	1,760	561	446	424
3	316	262	262	305	286	302	310	483	1,830	561	437	420
4	313	260	262	302	288	305	310	480	1,530	525	430	420
5	252	260	262	305	288	307	310	477	1,350	500	420	417
6	199	260	262	302	294	307	316	473	1,190	500	420	395
7	199	262	262	302	299	305	321	473	1,190	497	420	395
8	208	257	260	305	291	302	335	410	1,220	494	417	398
9	208	262	260	307	288	302	332	305	1,320	487	414	398
10	210	291	260	302	288	302	324	302	1,060	494	414	389
11	210	278	257	299	288	302	324	397	920	494	411	389
12	213	275	260	299	286	302	327	500	842	487	411	382
13	230	273	260	299	283	299	335	508	852	483	408	370
14	230	273	260	302	283	299	341	518	990	483	408	367
15	225	275	262	296	283	299	335	528	1,190	480	411	367
16	225	275	262	294	283	296	338	539	1,220	490	417	364
17	225	270	262	294	283	302	350	604	1,150	490	414	364
18	240	270	265	296	286	302	355	671	1,070	494	373	364
19	242	270	265	294	286	302	355	668	970	490	411	361
20	244	270	265	288	288	302	361	691	965	494	401	361
21	247	273	267	288	291	302	395	768	965	494	395	361
22	247	273	265	291	291	299	376	776	980	497	392	364
23	244	270	265	294	291	299	401	776	975	500	401	364
24	247	267	270	294	294	299	404	881	842	508	401	364
25	250	262	270	288	296	307	440	1,000	755	508	401	350
26	260	262	273	286	296	302	456	1,150	649	518	401	341
27	260	262	278	288	299	302	473	1,400	575	525	401	341
28	260	262	278	291	299	299	477	1,460	546	522	398	344
29	262	262	283	288	-	296	466	1,460	550	518	404	344
30	262	265	283	288	-	296	470	1,460	550	514	408	344
31	260	-	283	286	-	299	-	1,480	-	504	404	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,609	316	199	245	15,090
November	8,021	291	257	267	15,910
December	8,247	283	257	266	16,360
Calendar year 1949	144,333	1,390	199	395	286,300
January	9,150	307	283	295	18,150
February	8,097	299	283	289	16,060
March	9,355	307	296	301	18,520
April	10,944	477	302	365	21,710
May	22,608	1,480	302	729	44,840
June	31,576	1,830	546	1,053	62,630
July	15,662	561	480	505	31,070
August	12,755	466	373	411	25,300
September	11,279	424	341	376	22,370
Water year 1949-50	155,283	1,830	199	425	308,000

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 1950. 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.

Average discharge.--14 years (1933-34, 1937-50), 169 second-feet.

Extremes.--Maximum discharge during year, 1,140 second-feet June 3 (gage height, 6.16 feet); minimum, 0.6 second-foot on several days in July and August.

1903-5, 1933-34, 1937-50: Maximum discharge observed, 1,620 second-feet May 27, 1904; practically no flow during several periods.

Remarks.--Records good except those for Sept. 22-30, which are poor. 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. Flow affected by Weber-Provo diversion canal (see p. 117). 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 1949-50:

Month	Diversion (acre-feet)	Month	Diversion (acre-feet)
October	496	May	657
November	720	June	762
December	744	July	595
January	744	August	645
February	672	September	744
March	620		
April	534	Water year 1949-50	7,933

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	277	268	295	285	305	312	120	822	13	1.3	3.8
2	93	275	268	300	282	310	321	145	939	18	1.0	2.9
3	99	275	268	310	281	310	336	160	1,110	14	1.0	3.4
4	101	277	266	310	281	312	331	216	924	8.3	2.0	3.4
5	105	279	264	312	283	317	321	217	760	6.8	1.8	2.6
6	129	277	264	308	294	324	321	205	618	7.3	2.2	2.1
7	164	268	264	305	324	319	326	212	635	7.3	2.0	2.4
8	210	268	264	308	305	317	338	232	665	8.8	1.2	2.5
9	219	275	264	314	296	312	348	248	746	5.4	1.3	3.5
10	225	310	265	308	299	312	326	244	599	26	1.3	13
11	219	308	265	308	296	308	312	236	444	10	2.0	11
12	223	305	265	308	294	305	301	227	343	4.7	2.0	21
13	236	303	265	308	283	303	294	176	285	4.4	.8	20
14	238	296	265	308	281	301	305	146	404	2.9	.6	13
15	246	294	265	308	281	299	303	142	521	2.9	.7	5.4
16	246	294	270	308	288	301	303	106	599	3.0	.8	5.6
17	248	292	270	308	290	305	308	120	564	3.0	.6	7.5
18	273	288	270	310	294	310	262	223	518	3.6	1.0	5.8
19	288	285	270	310	296	305	227	236	433	3.6	1.1	5.8
20	281	283	270	305	299	308	194	212	417	2.6	1.0	5.0
21	283	281	270	308	299	305	156	275	406	2.3	.8	9.1
22	281	277	270	312	301	308	140	277	406	2.4	.8	60
23	279	277	270	312	299	303	129	277	406	3.0	.7	63
24	277	279	270	319	301	305	123	336	340	2.7	.6	63
25	277	279	270	312	305	317	123	469	250	2.4	.8	33
26	275	275	280	296	305	312	93	533	170	1.7	1.3	49
27	275	268	280	290	303	308	75	707	96	1.7	2.3	47
28	277	268	285	301	303	310	135	793	32	1.5	1.9	53
29	279	270	285	296	-	308	178	778	10	1.4	1.8	63
30	277	270	290	292	-	310	170	767	9.3	1.6	1.3	67
31	275	-	290	288	-	312	-	774	-	2.2	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,984	288	86	225	13,850
November	8,473	310	268	282	16,810
December	8,390	290	264	271	16,640
Calendar year 1949	77,154.1	895	.4	211	153,000
January	9,477	319	288	306	18,800
February	8,248	324	281	295	16,360
March	9,581	324	299	309	19,000
April	7,411	348	75	247	14,700
May	9,809	793	106	316	19,460
June	14,471.3	1,110	9.3	482	28,700
July	178.5	26	1.4	5.76	354
August	39.3	2.3	.6	1.27	78
September	676.8	67	2.1	22.6	1,340
Water year 1949-50	83,738.9	1,110	.6	229	166,100

Note.--No gage-height record Dec. 10 to Jan. 4 and Feb. 1-3; discharge computed on basis of weather records, and records for Provo River at Vivian Park. No gage-height record Sept. 22-30; discharge furnished by water commissioner from records for Provo River at Vivian Park and diversion canals.

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 1950 in reports of Geological Survey. 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 daily discharge during year, 144 second-feet June 6, 10; no water diverted from Weber River for several months.
1945-50: Maximum daily discharge, 747 second-feet June 20, 1947; no water diverted from Weber River for several months each year.

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 May 19, May 22 to June 28, Aug. 5 to Sept. 30.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	0	44	31	
2								0	0	44	23	
3								0	0	92	18	
4								0	0	140	4.4	
5								0	0	138	0	
6								0	0	144	0	
7								0	0	143	0	
8								0	0	142	0	
9								0	0	143	0	
10								0	0	144	0	
11								0	0	143	0	
12								0	0	142	0	
13								0	0	142	0	
14								0	0	140	0	
15								0	0	134	0	
16								0	0	109	0	
17								0	0	86	0	
18								0	0	92	0	
19								0	0	99	0	
20								6.9	0	86	0	
21								13	0	70	0	
22								0	0	62	0	
23								0	0	56	0	
24								0	0	51	0	
25								0	0	50	0	
26								0	0	39	0	
27								0	0	35	0	
28								0	0	36	0	
29								0	100	36	0	
30								0	41	29	0	
31								0	-	31	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 1949	16,562.5	537	0	45.4	32,850
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	19.9	13	0	0.64	40
June	141	100	0	4.70	280
July	2,842	144	29	91.7	5,640
August	78.4	31	0	2.46	152
September	0	0	0	0	0
Water year 1949-50	3,079.3	144	0	8.44	6,110

Weber-Provo diversion canal near Woodland, Utah

Location.--Water-stage recorder and Parshall flume, 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 1950 (periods of diversion only).

Extremes.--Maximum daily discharge during period, 136 second-feet July 8; no water diverted from Weber River or Beaver Creek for several months.
1931-50: Maximum daily discharge, 676 second-feet June 20, 1947; no water diverted from Weber River or Beaver Creek for several months during each year.

Remarks.--Records good. Canal diverts water from Weber River in SW¼SW¼ sec. 21, T. 1 S., R. 6 E., 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 quantity of water 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	46	32	
2									-	46	20	
3									-	71	15	
4									-	130	12	
5									-	128	-	
6									-	132	-	
7									-	132	-	
8									-	136	-	
9									-	130	-	
10									-	132	-	
11									-	134	-	
12									-	128	-	
13									-	128	-	
14									-	126	-	
15									-	113	-	
16									-	93	-	
17									-	75	-	
18									-	76	-	
19									-	80	-	
20									-	76	-	
21									-	61	-	
22									-	56	-	
23									-	50	-	
24									-	46	-	
25									-	46	-	
26									-	40	-	
27									-	34	-	
28									-	35	-	
29									75	36	-	
30									34	30	-	
31									-	24	-	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	-	-	-	-	-
June 29, 30	109	-	-	-	216
July	2,570	136	24	82.9	5,100
August	79	-	-	-	157
September	-	-	-	-	-
The period	-	-	-	-	5,470

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 1950 in reports of Geological Survey (discontinued). 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, 81 second-feet May 29, 30 (gage height, 2.58 feet); minimum recorded, 33 second-feet Apr. 20, 21.
1945-50: Maximum discharge, 91 second-feet May 10, 1946 (gage height, 2.68 feet); minimum, 33 second-feet Sept. 4, 1946, Apr. 20, 21, 1950.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	48		40	46	52	48	52	67	54	50	42
2	54	48		41	46	53	47	54	70	58	49	43
3	55	48	a42	40	46	54	47	54	68	55	46	43
4	55	49		39	46	54	47	50		57	46	43
5	54	48			47	54	48	47		56	46	44
6	55	48	43		51	54	48	44		57	45	43
7	58	49	43		55	53	48	49			44	44
8	59	48	43		52	52	49	55	a64		46	43
9	59	47	43		51	51	49	56			45	44
10	59	56	44		52	51	48	56			47	45
11	59	57	42	a39	50	51	49	56			44	46
12	58	50	42		47	50	49	54			43	46
13	53	48	42		47	50	49	51	61		43	46
14	51	46	41		47	51	49	44	64		41	47
15	51	45	41		47	51	49	45	64		43	48
16	50	45	41		47	50	47	46	60		42	50
17	49	45	41	42	47	50	41	48	61	a53	43	48
18	50	44	41	44	48	51	38	51	66		44	48
19	54	44	40	44	48	51	36	52	66		44	47
20	53	44	40	44	49	51	34	57	62		44	48
21	51	44	40	44	49	50	34	62	66		44	51
22	50	43	40	45	49	51	34	65	70		43	52
23	49	43	40	46	50	50	36	67	67		44	51
24	48	42	40	47	51	51	43	67	66		42	52
25	48	42	40	46	52	54	43	67	66		41	54
26	48	41	40	46	53	52	45	64	59		40	55
27	48	40	38	46	54	51	47	68	58	49	41	56
28	48	40	38	47	55	51	50	75	55	46	40	55
29	48	a41	38	47	-	50	54	73	53	47	41	53
30	48	a41	38	a47	-	49	53	74	54	47	43	54
31	48	-	38	h47	-	48	-	71	-	51	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,623	59	48	52.4	3,220
November	1,374	57	40	45.8	2,730
December	1,267	-	-	40.9	2,510
Calendar year 1949	17,471	83	-	47.9	34,650
January	1,310	47	-	42.3	2,600
February	1,382	55	46	49.4	2,740
March	1,591	54	48	51.3	3,160
April	1,359	54	34	45.3	2,700
May	1,774	75	44	57.2	3,520
June	1,899	70	53	63.3	3,770
July	1,637	-	-	52.8	3,250
August	1,357	50	40	43.8	2,690
September	1,441	56	42	48.0	2,860
Water year 1949-50	18,014	75	34	49.4	35,750

a No gage-height record; discharge computed on basis of discharge measurements, weather records, and records for South Fork Provo River at Vivian Park and Deer Creek near Wildwood.
h Computed from staff-gage readings.

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 3½ miles northwest of Wallsburg.

Drainage area.--71.9 square miles.

Records available.--October 1945 to September 1950 in reports of Geological Survey (discontinued). 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, 161 second-feet about Apr. 27 (gage height, 4.25 feet); minimum, 2.8 second-feet Sept. 2, 3.
1945-50: Maximum discharge, 179 second-feet Apr. 21, 1946 (gage height, 3.24 feet); minimum, 1.8 second-feet Sept. 7-8, 1948

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.3	11	9.0	14	13	19	22		65	6.0	6.2	3.7
2	4.3	10	9.4	17	11	19	36		62	6.0	6.2	3.6
3	4.3	10	9.4	15	12	19	45		54	5.5	6.0	3.0
4	4.3	10	9.0	14	12	19	36		49	5.5	6.0	3.1
5	4.3	10	9.4	13	15	20	37		41	6.0	6.2	3.5
6	4.7	10	9.7	12	32	23	51		24	6.8	6.2	3.7
7	5.7	10	10	12	58	20	67		26	6.0	6.2	3.9
8	8.3	10	10	12	30	18	88	a60	44	6.8	6.2	5.0
9	9.4	10	11	12	18	18	68		28	6.8	5.7	5.5
10	9.0	30	10	13	17	18	47		20	7.1	5.5	6.0
11	8.7	13	11	13	16	19	43		18	9.0	6.2	6.8
12	8.3	10	9.7	13	14	18	51		12	7.1	6.8	8.7
13	8.3	9.4	9.7	13	13	17	63		9.0	6.8	7.1	7.7
14	8.7	9.4	9.4	12	13	18	69		8.7	6.0	7.4	7.4
15	8.7	9.0	9.4	12	13	17	58		7.7	5.5	7.1	7.7
16	8.7	9.0	9.7	13	13	17	58	h118	7.1	5.5	6.2	8.7
17	9.4	9.0	10	15	13	18	70	132	8.0	5.5	5.2	8.3
18	23	9.0	10	26	14	23	81	137	8.3	6.5	5.0	7.1
19	25	9.0	10	23	14	21	79	130	8.0	8.0	5.2	6.5
20	14	9.0	10	19	15	22	80	122	8.0	6.5	6.8	6.8
21	12	9.0	11	18	16	20	94	118	7.7	6.0	8.0	7.7
22	12	9.0	11	18	14	20	109	123	6.8	6.5	6.5	8.0
23	11	9.4	12	21	18	20	115	122	6.5	7.1	5.5	8.3
24	11	9.4	12	21	21	21	114	117	6.0	8.0	4.7	8.0
25	11	9.4	12	19	22	38	96	110	6.8	6.0	4.1	7.7
26	11	9.0	12	21	21	23		94	6.5	5.7	3.9	8.3
27	11	9.0	13	23	20	20		89	6.5	6.0	3.9	8.3
28	11	9.0	14	20	21	18	a60	81	6.8	6.5	3.7	7.7
29	10	9.0	13	18	-	17		76	7.1	6.5	3.3	7.7
30	11	9.0	12	14	-	17		66	6.5	6.2	3.5	8.3
31	11	-	12	13	-	17	-	67	-	6.8	4.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	303.4	25	4.3	9.79	602
November	308.0	30	9.0	10.3	611
December	329.8	14	9.0	10.6	654
Calendar year 1949	6,907.2	107	2.8	18.9	13,700
January	499	26	12	16.1	990
February	509	58	11	18.2	1,010
March	614	38	17	19.8	1,220
April	1,977	-	22	65.9	3,920
May	2,602	137	-	83.9	5,160
June	575.0	65	6.0	19.2	1,140
July	200.2	9.0	5.5	6.46	397
August	174.6	8.0	3.3	5.63	346
September	196.1	8.7	3.0	6.54	389
Water year 1949-50	8,288.1	-	3.0	22.7	16,440

a No gage-height record; discharge computed on basis of discharge measurements, recorded range in stage, weather records, and records for nearby stations.
h Computed from staff-gage readings.

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.

Drainage area.--26 square miles.

Records available.--October 1945 to September 1950 in reports of Geological Survey (discontinued). 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 Apr. 23 (gage height, 1.29 feet); minimum, 8.8 second-feet Sept. 3, 4, 5.
1945-50: Maximum discharge, 92 second-feet Apr. 28, 1948; minimum, 7.7 second-feet Sept. 11, 1946.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	10	10	11	9.1	14	17	31	28	12	10	9.3
2	9.0	10	10	11	9.0	13	21	29	28	12	9.8	9.3
3	9.3	10	10	9.8	9.0	13	26	28	26	12	9.8	9.0
4	9.8	11	10	*9.6	9.0	14	23	26	25	12	9.8	9.0
5	9.8	11	11	9.4	9.3	14	24	24	23	12	9.8	9.0
6	9.8	10	*11	9.4	10	15	28	23	23	12	9.8	9.3
7	10	10	11	9.4	12	15	38	23	23	12	9.8	9.8
8	11	11	11	9.4	12	14	47	21	23	12	9.6	10
9	11	11	11	9.4	12	14	39	21	22	12	9.6	10
10	11	11	11	9.4	12	13	32	21	21	12	9.6	10
11	11	11	10	9.4	12	13	32	22	19	11	9.8	10
12	11	10	9.6	9.4	12	13	39	26	18	11	9.8	10
13	11	10	9.6	9.4	12	13	48	32	18	11	9.8	9.8
14	10	10	9.8	9.4	13	13	52	40	17	11	9.8	9.8
15	10	10	9.8	9.4	13	13	46	44	17	11	9.8	9.8
16	10	10	10	9.4	13	13	50	49	16	11	9.8	10
17	10	10	10	9.6	13	13	59	49	16	11	9.8	10
18	11	10	11	9.8	13	15	64	49	14	11	9.8	10
19	11	10	10	10	13	14	62	46	14	11	9.6	10
20	10	10	10	10	13	14	68	42	14	11	9.6	10
21	10	10	10	10	14	14	70	41	14	11	9.6	11
22	10	10	10	10	14	15	75	41	13	11	9.6	11
23	10	10	10	10	14	15	73	39	13	10	9.6	11
24	10	11	10	10	14	15	62	36	13	10	9.6	11
25	11	11	9.8	10	14	18	56	32	13	10	9.6	11
26	10	11	10	9.8	14	16	50	30	13	10	9.6	11
27	10	11	10	9.6	14	15	49	30	13	10	9.6	11
28	10	11	10	9.5	*14	15	43	30	13	10	0.6	12
29	10	11	10	9.4	-	15	38	29	13	10	9.6	12
30	10	10	10	9.3	-	15	33	30	12	10	9.6	12
31	11	-	10	*9.2	-	15	-	29	-	10	9.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	316.7	11	9.0	10.2	628
November	312	11	10	10.4	619
December	315.6	11	9.6	10.2	626
Calendar year 1949	5,419.3	64	8.4	14.8	10,760
January	300.4	11	9.2	9.69	596
February	342.4	14	9.0	12.2	679
March	441	18	13	14.2	875
April	1,364	75	17	45.5	2,710
May	1,013	49	21	32.7	2,010
June	535	28	12	17.8	1,060
July	342	12	10	11.0	678
August	300.5	10	9.3	9.69	596
September	307.1	12	9.0	10.2	609
Water year 1949-50	5,889.7	75	9.0	16.1	11,690

Peak discharge (base, 50 sec.-ft.).--Apr. 13 (8 p.m.) 62 sec.-ft.; Apr. 23 (5 p.m.) 91 sec.-ft.; May 17 (3-7 p.m.) 58 sec.-ft.

* Winter discharge measurement made on this day.

Note.--No gage-height record Nov. 10 to Dec. 5, Feb. 8-27, June 23 to July 6; discharge computed on basis of weather records and records for South Fork Provo River at Vivian Park. Stage-discharge relation affected by ice Jan. 4 to Feb. 3.

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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 1950.

Average discharge.--38 years (1912-50), 30.0 second-feet.

Extremes.--Maximum discharge during year, 59 second-feet June 1 (gage height, 1.37 feet); minimum, 12 second-feet Aug. 7.
1911-50: Maximum discharge observed, 123 second-feet May 27, 1922; minimum, that of Aug. 7, 1950.

Remarks.--Records good. Station below all diversions.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	27	22	24	26	23	25	27	53	27	23	26
2	27	27	22	24	26	22	26	28	54	26	23	26
3	26	27	22	24	25	23	26	29	45	22	24	26
4	25	27	23	24	25	23	25	28	38	23	24	27
5	25	27	23	24	26	23	25	27	32	24	24	27
6	25	27	24	24	26	23	25	28	32	25	24	26
7	26	27	24	24	26	22	25	27	38	26	18	27
8	26	27	23	24	25	23	27	27	36	27	18	29
9	26	27	23	24	24	22	27	27	33	26	21	28
10	27	31	24	24	24	23	27	27	32	26	21	28
11	27	26	23	24	23	23	25	27	31	25	24	31
12	26	25	23	24	23	23	25	27	30	25	25	31
13	27	25	23	24	22	23	26	28	30	25	26	31
14	27	26	24	24	23	23	26	30	31	25	26	31
15	26	27	23	24	23	23	26	34	31	25	24	32
16	26	27	23	24	22	23	26	38	31	25	23	32
17	26	27	23	24	22	23	27	40	31	25	24	32
18	28	27	23	25	22	24	28	38	26	24	25	32
19	28	27	23	24	22	24	31	39	24	24	26	32
20	28	27	23	22	22	24	31	38	25	24	26	32
21	27	27	23	23	22	24	32	36	25	25	25	32
22	27	26	23	23	21	24	35	38	27	25	24	32
23	26	26	23	25	22	24	37	46	29	23	29	33
24	27	26	24	25	22	24	39	48	29	23	28	34
25	27	25	23	24	23	26	37	49	28	20	27	34
26	27	25	23	24	23	25	34	45	28	14	27	34
27	27	25	23	25	23	25	33	41	28	16	28	33
28	27	25	23	26	23	25	32	46	28	20	27	33
29	27	24	24	25	-	25	31	43	27	25	27	32
30	26	23	24	25	-	25	28	41	27	24	27	30
31	26	-	24	25	-	25	-	46	-	23	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	822	28	25	26.5	1,630
November	790	31	23	26.3	1,570
December	718	24	22	23.2	1,420
Calendar year 1949	9,017	52	18	24.7	17,890
January	749	26	22	24.2	1,490
February	656	26	21	23.4	1,300
March	732	26	22	23.6	1,450
April	867	39	25	28.9	1,720
May	1,093	49	27	35.3	2,170
June	959	54	24	32.0	1,900
July	737	27	14	23.8	1,460
August	764	29	18	24.6	1,520
September	913	34	26	30.4	1,810
Water year 1949-50	9,800	54	14	26.8	19,440

American Fork above upper power plant, near American Fork, Utah

Location.--Water-stage recorder, lat. 40°27', long. 111°41', in NE¼ sec. 26, 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., 4 miles upstream from mouth of canyon, and 8 miles northeast of American Fork, Utah.

Drainage area.--55 square miles.

Records available.--October 1945 to September 1950. January 1927 to September 1945 available in files of Salt Lake City district office, Geological Survey.

Average discharge.--23 years, 52.1 second-feet.

Extremes.--Maximum discharge during year, 383 second-feet May 30 (gage height, 6.70 feet); minimum, 11 second-feet Feb. 8 (gage height, 4.47 feet).
1927-50: Maximum discharge, 455 second-feet May 17, 1948; minimum daily, 5 second-feet Feb. 3, 1936.

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

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	21	22	18	16	20	24	91	357	181	49	27
2	22	21	21	18	b16	22	30	87	330	170	47	27
3	22	21	21	18	b16	22	31	82	271	167	46	27
4	21	21	20	17	*16	22	30	77	261	160	45	27
5	22	20	20	17	16	25	31	74	282	154	45	27
6	22	20	20	17	18	27	33	70	300	145	44	27
7	23	20	19	17	18	25	41	67	292	139	43	27
8	23	21	19	b16	14	24	49	64	238	133	42	28
9	23	22	20	b16	14	24	48	62	195	124	40	28
10	24	23	*18	16	15	24	44	61	179	126	40	27
11	24	20	16	18	16	23	44	63	195	123	41	32
12	24	21	14	18	16	22	50	73	230	117	40	29
13	25	21	15	*17	15	20	60	91	243	111	39	27
14	24	22	15	18	*16	22	65	124	256	102	38	27
15	24	22	16	16	16	21	63	167	258	94	39	27
16	24	23	18	17	16	21	71	207	261	91	38	26
17	25	23	19	17	16	22	90	242	261	88	36	26
18	27	23	19	17	16	22	103	244	253	84	35	25
19	24	24	19	16	16	22	106	242	248	82	35	25
20	23	24	19	16	17	22	124	244	246	80	34	25
21	22	24	19	17	16	22	163	269	250	77	34	25
22	21	23	19	18	16	22	195	313	256	74	32	25
23	22	23	19	18	16	22	204	330	240	71	31	25
24	22	28	19	18	17	22	185	321	214	68	31	25
25	23	25	18	b15	18	24	160	335	186	66	31	25
26	23	24	18	b16	19	22	154	316	179	64	30	24
27	23	24	18	16	20	22	145	321	183	62	30	24
28	23	25	18	16	20	22	122	316	186	59	30	24
29	23	24	18	16	-	22	106	300	190	57	29	24
30	22	23	18	16	-	22	97	324	188	56	28	25
31	22	-	18	b16	-	21	-	368	-	52	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	714	27	21	23.0	1,420
November	676	28	20	22.5	1,340
December	572	22	14	18.5	1,130
Calendar year 1949	24,702	349	14	67.7	49,000
January	522	18	15	16.8	1,040
February	461	20	14	16.5	914
March	695	27	20	22.4	1,380
April	2,668	204	24	88.9	5,290
May	5,945	368	61	192	11,790
June	7,228	357	179	241	14,340
July	3,177	181	52	102	6,300
August	1,152	49	28	37.2	2,280
September	787	32	24	26.2	1,560
Water year 1949-50	24,597	368	14	67.4	48,780

* Winter discharge measurement made on this day.
b Stage-dsicharge relation affected by ice.
Note.--No gage-height record Oct. 10-17, Dec. 22 to Jan. 7, Jan. 10, 28, 29; discharge computed on basis of power-plant records and weather records.

Dry Creek near Alpine, Utah

Location.--Water-stage recorder, lat. 40°28'30", long. 111°45'30", in NE¼ sec. 18, T. 4 S., R. 2 E., 2 miles northeast of Alpine and 3½ miles upstream from Fort Creek.

Records available.--July 1947 to September 1950.

Extremes.--Maximum discharge during year, 236 second-feet May 30 (gage height, 2.55 feet); minimum, 5.5 second-feet Sept. 3, 4, 5.
1947-50: Maximum discharge, that of May 30, 1950; minimum, 4.7 second-feet Sept. 14, 22, 23, 1948.

Remarks.--Records good below 50 second-feet and fair above. Flow of Grove Creek, usually less than 1 second-foot was diverted to Dry Creek above station from about Dec. 1 to Apr. 20. During remainder of year it is normally not included.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	8.0	8.2	7.2	7.4	8.0	12	24	129	47	8.8	6.0
2	7.6	7.9	7.7	7.4	b7.4	8.8	14	22	80	46	8.6	6.0
3	7.4	7.9	7.4	6.8	7.4	9.2	12	21	77	45	8.4	5.9
4	7.2	7.9	6.9	6.5	*7.6	9.7	11	19	86	46	8.4	5.8
5	7.1	7.7	6.8	6.8	7.7	12	12	18	105	39	8.4	5.8
6	7.4	7.6	6.8	6.6	7.7	11	14	17	110	35	8.4	5.9
7	7.7	7.6	6.8	7.1	7.6	9.7	19	16	69	34	8.0	6.4
8	8.0	7.6	6.6	7.4	7.1	9.0	20	15	59	31	7.9	6.5
9	8.0	7.7	6.6	7.4	7.1	9.2	17	14	52	28	7.6	6.6
10	8.2	7.7	6.4	*7.2	7.2	9.3	16	15	51	31	7.6	6.8
11	8.4	7.7	6.5	7.1	6.8	8.8	16	18	58	27	7.7	7.6
12	9.5	7.6	6.5	7.1	6.8	8.2	19	24	62	24	7.7	7.2
13	11	7.7	6.5	7.2	6.6	8.2	25	31	62	22	7.6	6.8
14	12	8.2	6.8	7.1	6.6	8.0	24	44	61	21	7.6	6.6
15	9.9	8.0	6.8	7.1	6.6	7.9	22	50	66	19	7.2	6.8
16	9.7	8.6	6.8	7.1	6.5	8.0	27	53	67	18	7.1	6.6
17	9.9	9.5	6.8	7.2	6.6	8.6	29	62	66	17	7.1	6.8
18	10	10	6.9	7.2	6.6	8.4	35	62	63	16	6.8	6.6
19	9.5	11	7.1	7.2	6.8	8.4	37	62	62	16	6.8	6.5
20	9.2	11	6.9	7.2	7.2	8.0	44	83	60	15	6.8	6.6
21	9.2	10	6.8	7.7	6.8	8.2	56	101	62	14	6.6	6.9
22	9.5	9.9	6.9	7.7	6.6	8.4	a62	118	63	13	6.5	6.6
23	10	9.3	6.9	7.7	6.6	7.9	66	104	59	12	6.5	6.8
24	11	11	6.9	7.6	6.8	7.9	58	128	56	12	6.5	6.8
25	12	9.9	6.8	7.4	7.2	8.0	51	82	50	11	6.5	6.6
26	11	9.3	6.8	7.4	8.6	7.7	50	95	50	11	6.5	6.2
27	10	9.3	6.8	7.6	9.5	7.7	46	99	50	11	6.5	6.2
28	9.5	10	6.9	7.2	8.4	8.0	35	77	50	10	6.4	6.0
29	9.2	9.7	6.9	7.4	-	8.2	29	90	51	9.9	6.2	5.9
30	8.8	9.0	7.1	7.4	-	8.6	26	124	49	9.3	6.2	6.0
31	8.4	-	7.4	7.4	-	9.5	-	129	-	9.2	6.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	283.9	12	7.1	9.16	563
November	264.3	11	7.6	8.81	524
December	214.0	8.2	6.4	6.9	424
Calendar year 1949	9,123.2	171	-	25.0	18,090
January	224.4	7.7	6.5	7.24	445
February	201.8	9.5	6.5	7.21	400
March	268.5	12	7.7	8.66	533
April	904	66	11	30.1	1,790
May	1,817	129	14	58.6	3,600
June	1,985	129	49	66.2	3,940
July	699.4	47	9.2	22.6	1,390
August	225.0	8.8	6.1	7.26	446
September	193.8	7.6	5.8	6.46	384
Water year 1949-50	7,281.1	129	5.8	19.9	14,440

Peak discharge (base, 100 sec.-ft.).--May 30 (6 p.m.) 236 sec.-ft.
* 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.

Fort Creek at Alpine, Utah

Location.--Water-stage recorder, lat. 40°28'00", long. 111°46'45", in SW¼ sec. 13, T. 4 S., R. 1 E., three-quarters of a mile northwest of Alpine and 1½ miles above mouth.

Drainage area.--6.1 square miles.

Records available.--July 1947 to September 1950.

Extremes.--1950: Maximum discharge during year, 70 second-feet May 21 (gage height, 2.46 feet); minimum daily, 0.1 second-foot July 27, Aug. 31, Sept. 13.
1947-50: Maximum discharge, 172 second-feet June 2, 1948 (gage height, 3.60 feet); minimum daily, that of July 27, Aug. 31, Sept. 13, 1950.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		3.8	4.4	4.6	b4.5	8.9	10	14	27	5.2	2.8	2.8
2		3.6	4.3	4.4	b4.4	9.4	11	12	18	6.4	2.9	2.8
3		3.6	4.3	b4.1	b4.4	9.7	9.9	12	8.6	6.2	2.9	2.7
4		3.6	4.3	b4.0	*b5.0	10	8.6	11	16	7.0	1.3	2.6
5		3.6	4.3	b4.0	6.0	12	8.4	10	22	5.7	1.6	2.6
6		3.6	4.1	a4.1	6.2	11	10	10	23	5.4	3.0	1.0
7		3.6	4.1	a4.3	6.2	9.1	14	9.9	15	5.5	3.0	1.4
8	a3.5	3.6	4.1	a4.4	5.8	8.6	14	10	10	5.4	2.9	2.8
9		3.6	4.1	a4.5	b5.6	8.6	11	8.9	8.4	3.2	2.9	2.9
10		4.3	*4.0	*b4.5	b5.6	8.6	9.7	9.7	11	4.6	2.9	3.0
11		4.0	b4.0	4.4	5.7	7.9	9.7	12	17	5.0	.2	3.4
12		3.9	b4.0	4.6	5.5	7.7	12	17	12	4.3	3.4	2.9
13		4.1	b4.0	4.6	b5.5	b7.7	16	22	14	4.0	3.4	.1
14		4.4	b4.0	4.6	5.5	7.7	14	30	16	3.9	3.4	3.1
15	3.4	4.6	b4.0	4.6	5.7	7.7	12	31	16	3.9	3.4	3.2
16	3.4	5.0	4.0	4.4	5.8	7.5	15	30	15	3.9	3.5	3.4
17	3.5	5.5	4.0	4.7	6.0	7.7	20	32	14	2.7	2.1	3.5
18	4.0	5.8	4.1	4.9	6.4	7.7	20	31	13	.2	.6	3.5
19	4.0	6.0	4.1	5.0	7.3	7.7	20	29	13	2.6	3.1	2.3
20	4.0	5.7	4.1	4.9	7.7	7.5	28	35	13	3.5	3.0	.9
21	4.0	5.5	b4.0	5.8	6.6	7.0	32	41	8.9	3.5	3.0	3.1
22	4.6	5.2	b4.0	6.4	6.6	7.0	35	40	8.9	3.2	2.9	3.1
23	4.6	5.0	4.1	5.7	6.6	6.8	35	33	11	3.0	2.7	3.1
24	4.6	5.4	4.1	5.5	7.0	6.8	26	37	9.9	3.2	.6	3.1
25	4.3	5.2	b4.0	b5.0	8.6	7.0	23	27	8.6	3.2	1.8	3.0
26	4.0	4.9	4.0	b4.8	11	6.6	23	28	8.4	2.1	2.8	.4
27	3.9	5.0	4.0	b4.8	11	6.6	19	31	8.6	.1	2.8	2.1
28	3.9	5.0	4.3	4.9	9.4	6.4	16	28	8.4	2.2	2.8	2.8
29	3.9	5.0	4.3	b4.8	-	6.4	13	28	7.9	3.0	2.8	2.8
30	3.9	4.6	4.4	b4.7	-	6.8	14	36	5.2	3.0	1.8	2.9
31	3.8	-	4.6	b4.6	-	7.9	-	29	-	3.0	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	116.8	-	-	3.77	232
November	136.7	6.0	3.6	4.56	271
December	128.1	4.6	4.0	4.13	254
Calendar year 1949	3,510.1	59	-	9.62	6,960
January	146.6	6.4	4.0	4.73	291
February	181.6	11	4.4	6.49	360
March	248.0	12	6.4	8.00	492
April	509.3	35	8.4	17.0	1,010
May	734.5	41	8.9	23.7	1,460
June	387.8	27	5.2	12.9	769
July	118.1	7.0	.1	3.81	234
August	76.4	3.5	.1	2.46	152
September	77.3	3.5	.1	2.58	153
Water year 1949-50	2,861.2	41	.1	7.84	5,680

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

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. Auxiliary water-stage recorder about 1 mile downstream in NW¼NE¼ sec. 15, T. 1 S., R. 1 W., 20 feet upstream from bridge on Redwood Road (State Highway 68). Datum of both gages is 4,219.02 feet above mean sea level (datum of 1929).

Records available.--December 1942 to September 1950.

Extremes.--Maximum discharge during year, 434 second-feet June 2 (gage height, 5.67 feet); minimum daily, 32 second-feet Nov. 1, 2.
1942-50: Maximum discharge, 965 second-feet June 3, 1944 (gage height, 7.50 feet); minimum daily, 31 second-feet July 4, 1943.

Remarks.--Records good except those for periods of no gage-height record at auxiliary gage, which are fair. Flow regulated by head gates at diversion dam 300 feet above station. Canal was built to bypass flood water of Jordan River around Salt Lake City residential area. (See p. 102 for records of combined flow of Jordan River and Canal.) Several diversions below station for irrigation.)

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	32	151	135	109	292	144	160	362	103	140	109
2	104	32	127	162	103	282	144	172	380	108	134	106
3	103	34	129	146	104	274	136	194	356	100	139	117
4	92	36	126	133	102	262	131	213	327	84	137	130
5	88	a52	127	128	120	239	125	192	292	115	170	114
6	93	a67	127	125	174	223	151	178	296	109	139	110
7	106	a68	126	120	256	214	137	175	363	137	139	114
8	142	a83	124	118	252	211	128	195	393	223	126	126
9	134	a111	121	124	214	219	121	197	301	207	123	153
10	125	a76	138	118	194	224	120	173	240	228	127	180
11	104	a54	150	121	187	216	111	164	202	236	129	202
12	95	a108	146	132	178	200	112	171	202	220	150	232
13	89	a122	142	127	168	174	185	174	196	203	149	187
14	87	a135	138	118	169	208	274	189	212	190	142	185
15	81	a137	144	128	168	222	311	199	302	170	130	184
16	90	a138	178	130	176	218	275	236	269	158	127	184
17	84	135	148	134	225	190	294	257	250	129	123	181
18	92	137	142	190	255	153	316	299	236	144	101	182
19	106	137	159	190	270	146	313	319	237	129	96	168
20	94	136	156	163	291	146	315	340	230	139	90	159
21	101	136	144	149	298	143	300	297	218	119	104	147
22	104	133	139	136	276	141	296	282	216	161	84	119
23	92	128	136	138	281	131	212	278	230	152	87	109
24	a86	125	142	140	288	131	165	299	242	122	88	128
25	a77	121	136	132	298	143	150	316	246	102	89	131
26	a44	110	135	123	296	144	135	299	225	68	85	122
27	a41	97	135	117	299	140	134	290	189	69	78	117
28	a40	90	132	127	298	140	140	282	164	99	119	116
29	a37	91	131	129	-	140	163	293	153	160	126	119
30	a34	135	130	122	-	140	165	276	148	183	121	138
31	a34	-	133	114	-	138	-	348	-	162	124	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,712	142	34	87.5	5,380
November	2,998	138	32	99.9	5,940
December	4,292	178	121	138	8,510
Calendar year 1949	58,525	629	32	160	116,100
January	4,169	190	114	134	8,270
February	6,047	299	102	216	11,990
March	5,844	292	131	189	11,590
April	5,703	316	111	190	11,310
May	7,455	348	160	240	14,790
June	7,677	393	148	256	15,230
July	4,523	238	68	146	8,970
August	3,716	170	78	120	7,370
September	4,369	232	106	146	8,670
Water year 1949-50	59,503	393	32	163	118,000

a No gage-height record at auxiliary gage; discharge computed on basis of records for Jordan River at Salt Lake City and interpolated combined flow.

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., 300 feet downstream from bridge, 0.2 mile east of Hatch, and 2.8 miles downstream from Mammoth Creek. Prior to Oct. 3, 1949, at site 200 feet upstream and datum 0.36 foot higher.

Drainage area.--260 square miles.

Records available.--June 1911 to September 1928 (many years incomplete), June 1939 to September 1950.

Average discharge.--19 years (1912-13, 1914-16, 1917-18, 1922-23, 1924-27, 1939-50), 136 second-feet.

Extremes.--Maximum discharge during year, 317 second-feet May 21 (gage height, 2.36 feet); minimum discharge recorded, 51 second-feet Sept. 29, but may have been less during period of ice effect.
1911-28, 1939-50: 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 for several days in 1912 when water was stored in Hatchtown Reservoir; minimum daily natural flow, 43 second-feet Dec. 15, 1940.

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.

Revisions (water years).--W 960: 1939, 1940.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a86	83	79		62	74	70	195	228	93	75	65
2	a82	81	77		61	68	72	190	222	93	74	63
3	79	81	77		62	70	83	190	213	91	74	61
4	77	79	79		63	70	85	195	204	93	72	61
5	77	79	79		63	74	85	187	187	97	72	61
				65								
6	75	79	83		63	70	85	184	178	99	70	68
7	75	77	85		68	61	91	173	160	103	70	75
8	79	79	91		63	61	106	160	154	103	68	65
9	81	79	95		68	63	103	149	152	103	68	61
10	85	83			68	61	99	135	144	99	68	59
11	85	81			63	61	93	130	139	93	83	61
12	83	79		(*)	68	61	89	135	135	91	79	61
13	83	79			*74	59	91	139	130	91	75	59
14	83	81	(*)		65	66	93	149	126	87	72	61
15	83	79	80		63	66	95	162	123	83	70	61
				75								
16	81	79			63	66	93	187	119	83	70	59
17	81	79			65	66	93	204	119	83	68	58
18	85	79			65	66	101	231	114	91	66	58
19	a86	77			65	68	112	257	112	87	65	58
20	85	79			66	72	119	281	110	85	66	58
21	a84	79		70	66	68	121	292	106	81	65	58
22	a86	77		70	65	70	130	281	103	83	66	59
23	a88	75		70	66	70	152	284	99	81	66	59
24	a88	77		68	66	72	173	278	101	81	66	58
25	a88	77		64	68	81	192	274	101	83	66	58
26	a86	79	70	62	68	77	195	270	99	85	65	56
27	a84	79		62	70	74	195	264	95	83	63	56
28	a80	79		62	74	72	207	257	93	79	65	55
29	a76	79		63	-	70	207	254	91	79	65	53
30	a79	79		66	-	70	204	244	89	77	65	55
31	83	-		64	-	68	-	241	-	75	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,553	88	75	82.4	5,060
November	2,372	83	75	79.1	4,700
December	2,395	95	-	77.3	4,750
Calendar year 1949	51,759	590	-	142	102,600
January	2,121	-	-	68.4	4,210
February	1,841	74	61	65.8	3,650
March	2,115	81	59	68.2	4,200
April	3,634	207	70	121	7,210
May	6,572	292	130	212	13,040
June	4,046	228	89	135	8,030
July	2,735	103	75	88.2	5,420
August	2,142	83	63	69.1	4,250
September	1,800	75	53	60.0	3,570
Water year 1949-50	34,326	292	-	94.0	68,090

Peak discharge (base, 500 sec.-ft.).--No peak above base.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Sevier River near Kingston.
Note.--Stage-discharge relation affected by ice Dec. 10 to Jan. 20, Jan. 24-29, Jan. 31 to Feb. 3.

Sevier River near Circleville, Utah

Location.--Water-stage recorder, lat. 38°06', long. 112°20', in NW¼ sec. 17, T. 31 S., R. 4 W., Salt Lake meridian, 6.6 miles southwest of Circleville.

Drainage area.--950 square miles.

Records available.--May to September 1912, April 1914 to September 1927, November 1949 to September 1950.

Extremes.--Maximum discharge during year, 258 second-feet July 17 (gage height, 3.45 feet); minimum recorded, 12 second-feet Jan. 26, but may have been less during period of no gage-height record.

1912, 1914-27, 1949-50: Maximum discharge, 1,960 second-feet (revised), about May 21, 1922 (gage height, 8.6 feet, revised, from high-water mark), from rating curve extended above 1,000 second-feet by logarithmic plotting; minimum, 38 second-feet July 19, 1927 (gage height, 1.92 feet). Flood of March 1938 probably exceeded that of May 1922.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	141	110		159	87	171	169	57	60	56
2		-	137	105		150	88	157	165	59	58	57
3		-	140	92		149	87	148	166	59	57	58
4		-	137	93		149	88	158	162	61	54	54
5		-	140	106		152	87	162	154	62	54	55
6		-	142	101		149	83	165	142	69	54	59
7		-	146	106		135	85	154	128	85	53	64
8		-	150	118		136	87	148	126	85	54	83
9		-	148	122	140	133	95	137	120	108	53	87
10		-	145	117		132	93	129	113	102	58	97
11		-	120	122		132	80	120	107	99	81	80
12		-	(*)	*112		124	85	111	100	85	74	73
13		-		124		120	91	114	97	75	66	74
14		-		105		131	80	111	89	74	63	72
15		-		90	(*)	132	88	117	89	69	61	70
16		-		80	153	123	105	126	87	63	59	66
17		-		90	157	124	83	145	84	72	57	69
18		-		105	158	123	76	158	84	154	56	69
19		-		110	161	123	78	185	85	102	57	70
20		-		120	165	127	80	204	83	97	58	70
21		h153	110	120	161	122	88	215	76	83	55	76
22		150		122	154	119	91	216	70	81	57	96
23		137		127	153	118	95	215	70	78	57	97
24		140		124	153	109	111	212	64	80	57	97
25		141		106	157	117	132	206	64	81	56	97
26		138			157	119	148	206	66	75	54	95
27		138			164	108	144	203	65	74	55	96
28		140			168	103	142	203	63	72	54	91
29		140		100	-	107	164	202	62	69	55	91
30		141			-	99	172	192	58	66	55	81
31		-			-	93	-	182	-	62	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November 21-30	1,418	153	137	142	2,810
December	3,746	150	-	121	7,430
Calendar year	-	-	-	-	-
January	3,327	127	-	107	6,600
February	4,161	168	-	149	8,250
March	3,917	159	93	126	7,770
April	3,013	172	76	100	5,980
May	5,172	216	111	167	10,260
June	3,008	169	58	100	5,970
July	2,458	154	57	79.3	4,880
August	1,794	81	52	57.9	3,560
September	2,300	97	54	76.7	4,560
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.
h Computed from staff-gage reading.
Note.--Stage-discharge relation affected by ice Dec. 12 to Jan. 2, Jan. 15-19. No gage-height record Jan. 26 to Feb. 15; discharge computed on basis of discharge measurements, weather records, and records for Sevier River near Kingston and Sevier River at Hatch.

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 1950.

Average discharge.-- 36 years, 145 second-feet.

Extremes.--Maximum discharge during year, 262 second-feet Feb. 7 (gage height, 1.66 feet); minimum, 6.2 second-feet July 2.

1914-50: Maximum discharge, about 3,000 second-feet (including estimated flow of 360 second-feet in overflow channel bypassing station) Mar. 4, 1938 (gage height, 5.20 feet), from rating curve extended above 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	129	144	157		144	209	121	104	118	6.6	19	17
2	123	*144	148		112	194	126	96	101	6.6	18	17
3	118	144	154		103	187	123	81	104	6.6	16	17
4	112	141	154		101	187	118	78	98	9.8	15	17
5	109	141	148		154	191	115	104	88	11	15	17
6	104	138	151	a115	198	187	115	96	63	12	15	22
7	98	135	154		243	177	115	96	52	16	14	23
8	96	141	163		205	170	115	84	50	20	14	23
9	115	144	167		198	170	121	76	40	22	14	23
10	112	151			184	163	123	68	32	21	14	25
11	112	154			191	160	112	52	31	21	18	25
12	115	148			177	157	96	37	30	18	20	23
13	109	151	(*)	*81	170	154	96	31	16	17	21	24
14	107	157		76	177	157	84	27	15	15	19	27
15	109	157		76	180	163	78	28	20	14	21	21
16	104	157		63	184	154	84	31	17	13	18	21
17	107	157	b115	72	191	154	74	34	15	23	16	22
18	115	160		96	194	148	45	68	15	118	18	23
19	129	160		104	198	148	46	88	14	98	16	23
20	123	160		107	205	148	37	118	15	84	13	23
21	121	167		115	198	148	37	121	14	45	17	23
22	132	167		138	191	144	32	132	13	46	14	25
23	144	157		154	187	135	28	148	13	25	15	31
24	144	157		180	191	132	32	154	13	24	15	31
25	144	157		154	198	135	50	163	13	28	15	32
26	144	154	109	118	201	148	43	160	14	27	16	45
27	141	154	115	96	201	138	46	157	14	24	16	48
28	135	154	107	109	212	123	59	154	9.1	21	16	55
29	132	151	112	121	-	126	86	151	7.7	21	17	52
30	135	157	123	132	-	123	98	144	6.6	22	17	48
31	141	-	a110	141	-	121	-	129	-	20	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,759	144	96	121	7,460
November	4,559	167	135	152	9,040
December	3,912	167	-	126	7,760
Calendar year 1949	57,926	736	20	159	114,900
January	3,513	180	-	113	6,970
February	5,088	243	101	182	10,090
March	4,851	209	121	156	9,620
April	2,455	126	28	81.8	4,870
May	3,010	163	27	97.1	5,970
June	1,051.4	118	6.6	35.0	2,090
July	855.6	118	6.6	27.6	1,700
August	508	21	13	16.4	1,010
September	823	55	17	27.4	1,630
Water year 1949-50	34,385.0	243	6.6	94.2	68,200

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of discharge measurements, weather records, and records for Sevier River at Hatch and Sevier River near Circleville.

b Stage-discharge relation affected by ice.

The following 13 ditches and tunnels in Utah, each equipped with a water-stage recorder, divert water from the Colorado River Basin to the Sevier River Basin.

Fairview ditch diverts water from tributaries of San Rafael River and Price River to San Pitch River. Gage is located in SE¼ sec. 26, T. 13 S., R. 5 E.

Candland ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in NW¼ sec. 1, T. 15 S., R. 5 E.

Coal Fork ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SW¼ sec. 24, T. 15 S., R. 5 E.

Twin Creek tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SE¼ sec. 35, T. 15 S., R. 5 E.

Spring City tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SE¼ sec. 16, T. 16 S., R. 5 E.

Black Canyon ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SE¼ sec. 10, T. 16 S., R. 5 E.

Cedar Creek tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SE¼ sec. 10, T. 16 S., R. 5 E.

Reeder ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in NW¼ sec. 32, T. 16 S., R. 5 E.

John August ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in NW¼ sec. 35, T. 17 S., R. 4 E.

Madsen ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SW¼ sec. 23, T. 17 S., R. 4 E.

Ephraim tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in NW¼ sec. 24, T. 17 S., R. 4 E.

Larsen tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SE¼ sec. 10, T. 17 S., R. 4 E.

Horseshoe tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SW¼ sec. 2, T. 17 S., R. 4 E.

Transmountain diversions, in acre-feet, from Colorado River Basin to Sevier River Basin, water year October 1949 to September 1950

Month	Fairview ditch	Candland ditch	Coal Fork ditch	Twin Creek tunnel	Spring City tunnel	Black Canyon ditch	Cedar Creek tunnel
October	0	2	6	0	47	7	12
November	0	0	0	0	22	0	12
December	0	0	0	0	15	0	6
January	0	0	0	0	12	0	6
February	0	0	0	0	11	0	6
March	0	0	0	0	15	0	6
April	0	6	9	0	39	3	12
May	6	15	43	13	369	36	91
June	197	48	75	140	691	152	109
July	615	53	13	10	77	8	35
August	486	8	6	0	59	0	11
September	186	1	6	0	14	0	8
Water year 1949-50	1,490	132	158	163	1,370	206	313

Month	Reeder ditch	John August ditch	Madsen ditch	Ephraim tunnel	Larsen tunnel	Horse-shoe tunnel	
October	15	0	0	30	6	0	
November	6	0	0	20	0	0	
December	0	0	0	12	0	0	
January	0	0	0	6	0	0	
February	0	0	0	6	0	0	
March	0	0	0	12	0	0	
April	6	1	0	36	0	0	
May	75	14	2	1,510	142	218	
June	97	91	5	1,290	540	438	
July	39	74	0	145	60	42	
August	18	6	0	0	2	0	
September	10	0	0	0	0	0	
Water year 1949-50	266	186	7	3,070	751	698	

Note.--There is one diversion from the Sevier River Basin to the Colorado River Basin. This diversion is Tropic and East Fork Canal which diverts water from East Fork Sevier River to tributary of Paria River. Gage is located in SW¼ sec. 17, T. 36 S., R. 3 W. Figures of diversion, in acre-feet, for the 1949 water year are as follows: April, 138; May, 1,130; June, 1,110; July, 612; August, 650; September, 263; total for the water year, 3,910.

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 1950.

Extremes.--Maximum contents during year, 67,850 acre-feet Apr. 5, 6 (gage height, 73.5 feet); minimum, 3,200 acre-feet Sept. 30 (gage height, 28.5 feet).
1914-50: 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,000	14,020	25,850	36,630	44,420	56,320	67,370	53,710	47,190	34,320	23,720	11,990
2	9,900	14,340	26,280	36,960	44,790	56,730	67,370	52,330	47,000	33,670	23,300	11,370
3	9,800	14,560	26,720	37,300	44,980	57,340	67,610	52,720	46,820	33,200	23,030	10,970
4	9,620	14,780	27,150	37,470	45,340	57,750	67,610	52,920	46,640	32,880	22,890	10,670
5	9,430	15,010	27,580	37,650	45,710	58,170	67,850	53,120	46,450	32,570	22,750	10,280
6	9,250	15,340	28,170	37,820	46,080	58,600	67,850	53,320	46,260	32,100	22,610	10,000
7	9,080	15,570	28,610	37,990	46,450	59,030	67,610	53,710	45,900	31,790	22,340	9,900
8	8,810	15,910	29,050	38,160	46,820	59,240	67,370	54,110	45,340	31,480	22,060	9,800
9	8,720	16,250	29,500	38,330	47,190	59,450	67,130	54,510	44,790	31,480	21,120	9,900
10	8,630	16,600	30,110	38,510	47,560	59,670	67,130	54,910	44,420	31,480	21,520	10,000
11	8,630	16,950	30,560	38,680	48,120	59,880	66,890	55,310	43,880	31,630	21,790	10,090
12	8,630	17,310	31,020	39,030	48,490	60,100	66,420	55,510	43,150	31,630	21,920	10,180
13	8,720	17,680	31,480	39,200	48,870	60,320	66,190	55,510	42,420	31,330	20,710	10,090
14	8,810	18,040	31,940	39,560	49,250	60,760	65,960	55,110	41,880	30,860	20,580	9,900
15	8,990	18,410	32,410	39,740	49,620	60,980	65,730	54,510	41,520	30,410	20,190	9,520
16	9,340	18,910	33,040	39,910	50,000	61,420	65,260	54,110	41,160	29,950	19,930	9,160
17	9,710	19,410	33,670	40,090	50,390	61,860	64,800	53,710	40,620	29,650	19,670	8,460
18	10,090	19,930	33,830	40,270	50,970	62,310	64,340	53,320	40,270	29,500	19,410	7,630
19	10,380	20,450	33,990	40,440	51,350	62,760	63,890	52,920	39,910	29,500	18,660	6,760
20	10,670	20,840	34,150	40,620	51,940	63,210	63,210	52,530	39,380	29,350	18,160	6,220
21	10,870	21,250	34,320	40,980	52,330	63,660	62,530	51,940	38,850	29,200	17,680	5,700
22	11,170	21,660	34,480	41,340	52,920	64,110	61,860	51,350	38,330	28,910	17,190	5,270
23	11,470	22,200	34,640	41,520	53,510	64,340	60,760	50,780	37,990	28,610	16,720	4,840
24	11,780	22,750	34,800	41,880	53,710	64,570	59,670	50,200	37,650	28,170	16,250	4,570
25	12,090	23,300	34,960	42,060	54,310	65,030	58,600	49,620	37,300	27,730	15,680	4,300
26	12,300	23,860	35,130	42,420	54,710	65,500	57,340	49,060	36,960	27,300	15,120	4,040
27	12,510	24,140	35,290	42,780	55,110	65,730	56,320	48,670	36,460	26,720	14,670	3,850
28	12,720	24,570	35,450	43,150	55,710	65,960	55,510	48,490	36,120	26,140	14,230	3,730
29	13,040	24,990	35,620	43,510	-	66,420	54,910	48,120	35,620	25,420	13,690	3,480
30	13,370	25,420	35,950	43,880	-	66,890	54,310	47,740	34,960	24,710	13,150	3,200
31	13,690	-	36,290	44,240	-	67,130	-	47,380	-	24,140	12,510	-

Monthly gage height and contents, water year October 1949 to September 1950

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	37.6	10,090	-
Oct. 31	41.1	13,690	+3,600
Nov. 30	50.4	25,420	+11,730
Dec. 31	57.5	36,290	+10,870
Calendar year 1949	-	-	+8,270
Jan. 31	62.0	44,240	+7,950
Feb. 28	68.0	55,710	+11,470
Mar. 31	73.2	67,130	+11,420
Apr. 30	67.3	54,310	-12,820
May 31	63.7	47,380	-6,930
June 30	56.7	34,960	-12,420
July 31	49.5	24,140	-10,820
Aug. 31	40.0	12,510	-11,630
Sept.30	28.5	3,200	-9,310
Water year 1949-50	-	-	-6,890

Sevier River below Piute Dam, near Marysvale, Utah

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

Drainage area.--2,440 square miles.

Records available.--May 1911 to September 1950.

Average discharge.--38 years (1912-50), 247 second-feet.

Extremes.--Maximum discharge during year, 663 second-feet July 29 (gage height, 2.57 feet); minimum recorded, 4.1 second-feet Feb. 28, Mar. 1, but may have been less during periods of ice effect.
1911-50: Maximum discharge, 2,600 second-feet May 23, 24, 1922; practically no flow at times when reservoir gates were closed.

Remarks.--Records good except those for periods of ice effect or no gage-height record, 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	330	63	43	4.9	4.4	4.1	41	374	358	548	456	558
2	299	80	43	4.9	b4.4	4.4	48	381	339	558	414	526
3	296	120	42	b4.8	4.4	4.4	47	384	320	490	384	512
4	345	103	38	b4.8	4.4	4.4	51	245	293	466	314	487
5	342	101	22	b4.7	4.4	4.4	97	84	374	466	278	411
6	342	99	21	a4.6	4.4	4.4	116	82	448	490	342	442
7	342	97	21	a4.5	4.4	4.4	129	38	484	484	355	470
8	374	69	21	a4.5	4.4	4.4	134	37	515	397	411	397
9	314	69	20	a4.4	4.4	4.4	189	28	490	287	435	299
10	290	67	20	a4.4	4.4	4.4	176	20	442	210	466	264
11	224	64	18	a4.4	4.4	4.4	249	43	476	287	371	249
12	189	64	*18	a4.4	b4.4	b4.4	314	72	508	284	339	290
13	186	63	18	a4.4	4.4	4.4	342	127	504	435	269	317
14	127	61	18	*4.4	4.4	4.4	339	197	462	540	339	302
15	61	60	18	4.4	4.4	*4.4	330	261	456	569	384	336
16	48	61	18	b4.4	*4.4	4.4	368	275	428	632	378	355
17	48	60	18	4.4	4.4	4.4	388	342	480	573	424	378
18	56	59	18	4.4	4.4	4.4	438	352	526	394	515	374
19	88	52	18	4.4	4.4	4.6	445	355	508	296	566	374
20	91	42	18	4.4	4.4	4.6	473	388	498	381	562	371
21	91	41	17	4.4	4.4	4.6	473	480	494	421	586	345
22	91	39	16	4.4	4.4	4.6	508	494	438	418	551	278
23	91	37	6.9	4.4	4.4	4.9	573	584	428	401	522	261
24	90	36	6.0	4.4	4.4	5.2	591	562	374	388	512	224
25	90	36	b5.8	4.4	4.4	5.2	613	501	371	462	555	197
26	88	35	b5.6	b4.4	4.4	5.4	625	490	368	522	595	163
27	90	34	5.4	b4.4	4.4	5.4	606	452	374	555	595	160
28	90	34	5.4	b4.4	4.1	5.4	562	421	442	580	606	171
29	82	34	5.4	4.4	-	5.7	526	355	555	613	610	227
30	72	40	5.2	4.4	-	5.7	424	311	562	651	602	314
31	66	-	5.2	4.4	-	5.7	-	355	-	562	595	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,333	374	48	172	10,580
November	1,820	120	34	60.7	3,610
December	554.9	43	5.2	17.9	1,100
Calendar year 1949	86,258.3	968	-	236	171,100
January	138.9	4.9	4.4	4.48	276
February	122.9	4.4	4.1	4.39	244
March	145.9	5.7	4.1	4.71	289
April	10,215	625	41	340	20,260
May	9,090	584	20	293	18,030
June	13,315	562	293	444	26,410
July	14,360	651	210	463	28,480
August	14,311	610	269	462	28,380
September	10,052	558	160	335	19,940
Water year 1949-50	79,458.6	651	4.1	218	157,600

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of discharge measurements, weather records, and records for Sevier River near Sevier, Utah.
b Stage-discharge relation affected by ice.

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 1950. May 1911 to September 1929 at site 0.8 mile downstream, published as Sevier River at Sevier; those for November 1916 to September 1929 include flow of Clear Creek and are not equivalent.

Average discharge.--15 years (1912-16, 1939-50), 293 second-feet.

Extremes.--Maximum discharge during year, 632 second-feet July 18 (gage height, 2.89 feet); minimum, 6.2 second-feet Feb. 13.

1911-29, 1939-50: Maximum discharge, 2,800 second-feet during last week in May 1922, computed on basis of records for station near Marysvale; minimum, that of Feb. 13, 1950 (10 second-feet Nov. 27, 1919 including flow of Clear Creek).

Remarks.--Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation. Flow regulated by Piute and Otter Creek Reservoirs.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	351	70	57			31	25	363	405	510	544	590
2	320	69	60			29	56	347	388	510	431	534
3	293	119	61			28	63	347	355	500	384	514
4	316	138	63			28	63	343	331	440	351	500
5	331	134	61			28	82	200	347	440	304	444
6	331	136	53			26	144	112	410	454	282	392
7	324	136	49			27	171	84	481	472	320	454
8	355	119	48		31	30	180	53	505	449	339	449
9	368	88	46			28	210	50	510	372	384	347
10	297	78	42			27	230	43	458	268	414	304
11	290	77	36	33		27	243	35	431	278	431	271
12	240	77	32			26	297	48	490	290	359	275
13	226	77	29			35	320	99	505	320	320	320
14	220	74	28			30	331	177	486	462	293	304
15	157	74	27		*30	27	335	210	454	519	335	304
16	90	72	26		30	27	308	260	427	569	363	339
17	69	74	26		30	27	324	290	431	621	376	351
18	64	72	26		34	26	384	328	476	514	431	355
19	69	70	26	(*)	32	27	392	328	490	368	490	355
20	103	66	*26		31	29	405	339	472	359	524	359
21	117	66			30	26	418	401	462	397	529	351
22	117	60			29	26	431	458	440	431	534	312
23	114	60			29	26	472	505	405	414	534	275
24	114	56			29	26	514	564	368	388	505	268
25	114	53			30	26	539	510	347	405	500	233
26	114	51	28	34	31	27	564	472	347	495	554	214
27	114	53			31	26	569	472	339	524	584	198
28	114	51			31	26	549	418	368	564	579	192
29	112	51			-	26	500	418	436	574	590	201
30	101	*53			-	26	449	339	510	574	595	260
31	80	-			-	25	-	351	-	590	590	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,025	368	64	194	11,950
November	2,374	138	51	79.1	4,710
December	1,130	63	-	36.4	2,240
Calendar year 1949	98,415	1,120	-	270	195,200
January	1,034	-	-	33.4	2,050
February	861	-	-	30.8	1,710
March	849	35	25	27.4	1,680
April	9,568	569	25	319	18,980
May	8,964	564	35	289	17,780
June	12,874	510	331	429	25,540
July	14,071	621	268	454	27,910
August	13,769	595	282	444	27,310
September	10,265	590	192	342	20,360
Water year 1949-50	81,784	621	-	223	162,200

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 10 to Feb. 14.

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 1950.

Average discharge.--36 years (1914-50), 111 second-feet.

Extremes.--Maximum discharge during year, 228 second-feet Jan.24 (gage height, 2.36 feet); minimum, 1.2 second-feet Mar. 25.
1914-50: 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 on basis of maximum discharge for other Sevier River stations; practically no flow (seepage only) when Rockyford Reservoir gates are closed.

Remarks.--Records good above 10 second-feet and fair below. The extreme low flow during irrigation season represents seepage and return flow from canals. Flow also regulated by dams and reservoirs above station.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	133	107	139	156	125	45	3.8	3.4	2.4	2.8	2.4
2	95	133	105	149	149	133	54	3.4	3.4	3.0	3.0	2.4
3	97	133	105	156	149	131	60	4.2	3.4	3.4	2.6	2.2
4	93	135	105	147	154	129	61	7.0	3.2	3.4	2.2	2.0
5	87	139	104	158	152	125	54	37	3.2	3.0	2.2	2.0
6	80	143	105	137	163	120	53	83	2.6	2.8	2.0	1.8
7	76	147	111	135	181	125	47	105	1.8	2.6	1.6	1.6
8	135	149	120	143	178	127	42	104	1.8	2.2	1.6	1.8
9	154	152	121	149	160	131	42	105	1.8	1.8	1.8	2.0
10	167	149	118	156	152	127	44	105	1.8	1.6	2.0	2.2
11	183	137	116	158	149	125	44	104	1.8	1.6	1.8	2.8
12	190	129	109	158	156	125	25	67	2.2	1.6	1.8	3.0
13	188	127	112	158	152	a128	11	47	2.4	2.0	1.8	3.2
14	163	158	109	158	149	a134	8.2	48	2.8	2.2	2.2	3.4
15	154	169	104	156	149	h135	7.0	39	3.0	2.2	2.6	4.6
16	145	129	111	156	152	f135	6.6	36	2.6	2.2	3.4	10
17	135	114	111	158	156	f120	5.8	29	2.4	2.2	3.6	21
18	133	112	121	158	160	68	5.4	23	2.4	2.2	3.4	34
19	125	114	133	165	160	12	5.0	14	2.6	2.4	3.4	25
20	116	116	145	165	160	31	4.8	9.5	2.6	2.4	3.2	18
21	116	118	147	163	156	32	4.8	7.4	2.8	2.6	3.2	18
22	120	123	154	167	149	34	4.4	6.6	2.8	2.6	3.0	18
23	129	114	152	176	145	25	4.2	6.2	2.4	2.6	2.8	20
24	135	111	154	198	141	1.8	4.2	4.8	2.4	2.6	5.8	22
25	137	105	156	212	137	14	4.4	4.4	2.4	2.6	12	23
26	139	107	154	190	133	51	4.4	4.4	2.6	2.6	10	44
27	137	109	145	165	131	78	4.0	4.2	2.6	2.8	8.6	44
28	133	109	149	158	129	107	4.0	4.0	2.6	2.6	6.6	26
29	133	107	135	158	-	62	4.2	4.0	2.6	2.6	5.4	25
30	135	107	135	158	-	26	4.0	4.0	2.4	2.8	4.2	26
31	133	-	139	156	-	32	-	3.8	-	2.8	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,049	190	76	131	8,030
November	3,828	169	105	128	7,590
December	3,892	156	104	126	7,720
Calendar year 1949	33,431.2	573	2.4	91.6	66,310
January	4,960	212	135	160	9,840
February	4,258	181	129	152	8,450
March	2,748.8	135	1.8	88.7	5,450
April	667.4	61	4.0	22.2	1,320
May	1,027.7	105	3.4	33.2	2,040
June	76.8	3.4	1.8	2.56	152
July	76.4	3.4	1.6	2.46	152
August	113.4	12	1.6	3.66	225
September	411.4	44	1.6	13.7	816
Water year 1949-50	26,108.9	212	1.6	71.5	51,780

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

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 1950.

Average discharge.--33 years, 228 second-feet.

Extremes.--Maximum discharge during year, 455 second-feet Nov. 15 (gage height, 2.79 feet); minimum, 19 second-feet June 30, Aug. 31.
1917-50: Maximum discharge, 2,620 second-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 except those for Mar. 14 to May 23, which are fair. 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	143	281	281	265	289	302	122	66	91	29	84	46
2	194	265	281	270	281	294	135	106	80	29	96	46
3	217	265	286	278	281	292	141	98	76	26	74	52
4	215	265	283	273	270	289	141	106	78	135	79	59
5	194	268	275	257	289	260	145	85	69	96	106	62
6	182	270	265	281	316	257	137	116	69	95	82	67
7	169	275	231	270	368	292	135	152	57	99	80	99
8	182	286	308	260	353	240	139	217	90	115	74	108
9	285	313	222	260	325	240	137	143	98	113	62	95
10	325	356	255	257	316	244	143	176	104	110	69	104
11	313	339	286	260	313	234	145	176	115	118	66	93
12	325	325	227	265	308	230	145	185	113	116	24	99
13	276	308	254	270	311	237	141	145	128	116	60	115
14	336	289	230	270	308	247	133	139	128	60	84	124
15	302	333	244	268	308	247	133	143	41	48	82	113
16	297	296	242	270	313	247	139	135	50	33	63	118
17	297	339	237	273	322	242	187	129	48	67	51	122
18	281	292	242	286	325	244	160	131	53	38	53	131
19	268	292	247	308	327	217	115	116	52	37	70	122
20	268	294	313	322	330	178	87	120	47	37	99	104
21	268	248	278	322	330	150	52	131	43	31	87	57
22	268	262	273	327	322	156	66	162	42	26	84	53
23	283	289	262	342	316	158	63	165	38	27	93	59
24	285	283	268	371	311	156	62	129	32	28	78	62
25	270	286	265	371	308	126	78	120	47	31	82	108
26	275	283	262	342	308	116	69	104	48	50	84	115
27	278	283	255	311	305	143	78	118	48	55	90	139
28	294	297	255	305	308	167	69	113	47	51	113	145
29	319	289	257	313	-	194	70	113	51	51	106	150
30	281	289	257	308	-	152	66	108	32	52	45	133
31	275	-	260	300	-	122	-	96	-	82	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,145	336	143	263	16,160
November	8,760	356	248	292	17,380
December	8,101	313	222	261	16,070
Calendar year 1949	83,009	657	33	227	164,700
January	9,075	371	257	293	18,000
February	8,761	368	270	313	17,380
March	6,673	302	116	215	13,240
April	3,433	187	52	114	6,810
May	4,043	217	66	130	8,020
June	2,015	128	32	67.2	4,000
July	2,001	135	26	64.5	3,970
August	2,355	113	24	76.0	4,670
September	2,900	150	46	96.7	5,750
Water year 1949-50	66,262	371	24	182	131,400

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 and 13 miles southwest of Juab.

Drainage area.--5,120 square miles.

Records available.--January 1914 to September 1950.

Extremes.--Maximum contents during year, 187,600 acre-feet Apr. 7 (gage height, 75.0 feet); minimum not determined, occurred during period of unreliable gage-height record.
1914-50: 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.

Revisions (water years).--W 960: 1941.

Contents, in acre-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88,100	106,200	119,300	135,600	153,000	173,400	185,900	160,100	130,100			
2	88,430	106,800	119,800	136,600	153,400	173,800	185,900	157,800	128,800			
3	89,090	107,500	120,400	137,600	154,100	174,200	185,900	156,300	127,100			
4	89,420	108,000	120,900	138,200	154,900	175,000	186,300	154,900	126,000			
5	89,760	108,400	121,500	138,600	155,600	175,400	186,700	154,500	124,800			
6	90,090	108,900	121,800	138,900	156,300	175,800	187,200	154,100	123,100			
7	90,430	109,400	122,200	139,200	157,400	176,600	187,600	153,400	-			
8	90,760	109,800	122,200	139,800	158,600	177,400	186,700	153,000	-			
9	91,430	110,300	122,500	140,200	159,300	177,800	185,900	152,700	-			
10	91,770	110,800	122,800	140,500	160,100	177,800	185,000	152,700	-			
11	92,100	111,200	123,700	141,200	160,800	178,300	184,200	152,700	-			
12	92,450	111,700	124,200	142,200	161,600	178,700	183,300	152,400	-			
13	93,160	112,200	124,500	142,900	162,000	178,700	182,500	152,400	-			
14	93,870	112,600	124,800	143,500	162,300	179,100	180,800	152,400	-			
15	94,750	113,100	125,100	143,800	163,100	179,900	179,500	152,400	-			
16	95,280	113,600	125,700	144,200	163,900	180,800	179,100	151,200	-			
17	96,020	114,400	126,200	144,600	164,300	181,200	178,300	150,500	-			
18	96,590	114,900	126,800	144,900	165,000	181,600	178,300	149,100	-			
19	97,350	114,600	127,700	145,600	165,800	181,600	177,800	147,700	-			
20	98,300	114,900	128,300	146,300	166,200	182,000	177,400	147,000	-			
21	99,260	114,400	129,200	147,000	167,000	182,500	175,800	147,000	-			
22	100,300	114,600	130,100	147,700	167,800	182,900	174,600	146,300	-			
23	100,700	115,200	130,700	148,400	168,600	183,300	172,600	144,200	-			
24	101,100	115,700	131,300	149,100	169,400	183,800	171,000	142,900	-			
25	101,500	116,200	131,600	149,800	170,100	184,200	169,400	141,200	-			
26	102,300	116,700	131,900	150,200	170,900	184,200	167,400	139,200	-			
27	103,200	117,200	132,500	150,500	171,800	184,200	165,800	137,600	-			
28	104,000	117,700	133,100	150,800	172,600	184,600	163,900	136,000	-			
29	104,600	118,200	133,800	151,600	-	185,000	162,700	134,400	-			
30	105,300	118,800	134,400	152,000	-	185,000	161,200	132,800	-			
31	105,800	-	135,000	152,700	-	185,400	-	131,300	-			

Monthly gage height and contents, water year October 1949 to September 1950

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	57.8	88,100	+18,100
Nov. 1	62.6	106,200	+13,100
Dec. 1	65.3	119,300	+16,300
Calendar year 1949	-	-	-18,500
Jan. 1	68.1	135,600	+17,400
Feb. 1	70.65	153,000	+20,400
Mar. 1	73.3	173,400	+12,500
Apr. 1	74.8	185,900	-25,800
May 1	71.6	160,100	-30,000
June 1	67.2	130,100	-
July 1	-	-	-
Aug. 1	-	-	-
Sept. 1	-	-	-
Oct. 1	46.4	54,950	-
Water year 1949-50	-	-	-33,150

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 1950.

Average discharge.--39 years, 250 second-feet.

Extremes.--Maximum discharge during year, 1,100 second-feet May 25 (gage height, 4.66 feet), minimum daily, 6.2 second-feet Oct. 21, 22.
1911-50: Maximum discharge, 2,140 second-feet June 2, 1922 (gage height, 8.50 feet); practically no flow at times when reservoir gates are 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	10	11				11	802	714	936	286	396
2	11	11	11				11	784	784	821	393	390
3	11	33	11				9.2	773	769	673	439	390
4	11	70	11				8.1	477	754	647	367	387
5	11	70	h11				9.2	316	736	647	331	384
6	11	70	11				9.2	313	721	647	331	329
7	11	70	11				11	260	311	585	647	390	201
8	11	h70	11					464	288	493	557	554	140
9	11	70	11					464	226	493	483	658	140
10	10	70	11					498	200	423	483	651	140
11	9.2	70	11	18				560	203	326	411	647	140
12	9.2	70	h11					621	203	316	361	486	140
15	14	70	11					658	205	313	318	393	80
14	8.1	30	12				11	658	205	308	296	393	49
15	8.1	9.2	12		12		11	457	379	423	296	396	49
16	8.1	9.2	13				11	337	496	509	296	393	46
17	8.1	9.2	13				11	337	574	420	293	393	44
18	8.1	65	h14				11	426	640	356	293	350	42
19	8.1	280	h14				11	496	506	402	293	329	40
20	7.1	493	14				11	617	432	429	296	329	46
21	6.2	273	14				11	673	432	426	370	331	46
22	6.2	11	14				12	788	658	442	387	353	46
23	7	11	14				11	843	824	540	339	376	46
24	7	9.2	14				12	828	828	574	337	356	46
25	8	11	14				12	858	969	625	337	370	46
26	h8.1	9.2	14				12	865	1,030	717	334	356	46
27	8	9.2	15	12			12	858	1,010	732	243	451	46
28	8	9.2	18				11	839	981	806	144	451	46
29	9	9.2	18			-	11	832	725	873	140	473	46
30	9	11	18			-	11	817	632	932	159	442	49
31	10	-	18			-	11	-	621	-	219	396	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	283.6	14	6.2	9.15	563
November	2,012.6	493	9.2	67.1	3,990
December	406	18	11	13.1	805
Calendar year 1949	91,414.2	1,290	6.2	250	181,300
January	510	-	-	16.5	1,010
February	336	-	-	12.0	666
March	346	-	-	11.2	686
April	15,111.7	865	8.1	504	29,970
May	17,043	1,030	200	550	33,800
June	16,941	932	308	565	33,600
July	12,703	936	140	410	25,200
August	12,864	658	286	415	25,520
September	4,036	396	40	135	8,010
Water year 1949-50	82,592.9	1,030	6.2	226	163,800

h Computed from staff-gage readings.
Note.--No gage-height record Oct. 9, 10, 23-25, Oct. 27 to Nov. 2, Nov. 7, 9-12, Dec. 2-4, 6-11, 13-17, Dec. 20 to Mar. 13; discharge computed on basis of discharge measurements, records of gate operation for Sevier Bridge Reservoir, or interpolated.

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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 1950.

Average discharge.--12 year (1914-19, 1943-50), 229 second-feet.

Extremes.--Maximum discharge during year, 771 second-feet May 27 (gage height, 6.02 feet); minimum, 17 second-feet Mar. 22 (gage height, 1.92 feet).
1914-19, 1942-50: 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 periods of no gage-height record, which are fair, and those for periods of ice effect, which are poor. Flow regulated by Sevier Bridge Reservoir (see p. 136). Several diversions between reservoir and station for irrigation.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	25	*71			20	18	565	403	620	120	326
2	76	24	71			20	24	568	432	649	165	381
3	72	35	70			20	49	542	509	625	250	364
4	66	56	69			20	42	532	519	499	370	359
5	58	66	71			21	41	398	532	442	338	383
6	43	90	74			19	43	177	519	446	287	386
7	43	94	75		25	20	43	167	504	454	296	371
8	47	97	75			20	56	187	454	452	294	289
9	54	100	75			20	388	184	340	444	379	205
10	58	90				20	444	170	324	335	466	191
11	64	90				19	472	126	305	335	479	194
12	66	98				19	542	117	214	317	476	194
13	43	102				20	565	126	209	232	436	192
14	30	102			24	19	625	125	194	222	312	185
15	28	102			*24	19	638	124	184	184	296	125
				28								
16	28	85			24	18	560	172	220	173	292	107
17	28	68			24	18	403	379	335	162	298	105
18	29	65			24	19	381	424	333	161	240	102
19	31	64			24	18	410	499	364	162	226	87
20	28	128	40	(*)	23	18	494	441	391	161	185	85
21	28	446			22	18	563	326	442	160	178	85
22	27	449	(*)		22	18	654	317	452	160	177	88
23	26	167			22	18	690	416	462	179	178	88
24	26	93			22	19	682	594	506	196	205	89
25	26	86			21	20	643	612	586	192	203	94
26	26	80			21	20	615	656	558	180	172	94
27	25	77			21	19	599	769	563	180	191	93
28	25	74			21	18	581	758	552	179	207	92
29	25	73			-	18	578	736	509	140	250	94
30	25	70			-	19	573	596	563	90	263	93
31	25	-			-	18	-	434	-	96	285	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,260	84	25	40.6	2,500
November	3,196	449	24	107	6,340
December	1,531	75	-	49.4	3,040
Calendar year 1949	75,045	939	-	206	148,800
January	868	-	-	28.0	1,720
February	664	-	-	23.7	1,320
March	592	21	18	19.1	1,170
April	12,416	690	18	414	24,630
May	12,237	769	117	395	24,270
June	12,478	586	184	416	24,750
July	8,827	649	90	285	17,510
August	8,514	479	120	275	16,890
September	5,541	386	85	185	10,990
Water year 1949-50	68,124	769	-	187	135,100

* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 10 to Feb. 13. No gage-height record July 18 to Aug. 4; discharge computed on basis of records for Sevier River near Juab.

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 1950.

Average discharge.--37 years, 88.9 second-feet.

Extremes.--Maximum discharge during year, 305 second-feet Sept. 6, 7 (gage height, 2.33 feet); minimum not determined, occurred during period of no gage-height record.
1913-50: Maximum discharge, 2,030 second-feet May 12, 1941 (gage height, 5.05 feet); minimum, 3.8 second-feet Jan. 7, 1946.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions above and below station for irrigation. Station is above diversions in vicinity of Kingston. Flow regulated by Otter Creek Reservoir (see p.140).

Revisions (water years).--W 750: 1931, 1932.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	21	73		18	29	67	94	103	195	220	275
2	27	21	69		17	29	66	89	114	230	217	299
3	23	22	72		21	31	38	80	147	230	220	296
4	22	22	71		24	34	37	84	144	227	220	287
5	21	22	73		25	36	38	82	156	230	220	287
6	21	22	73		26	37	39	76	182	230	215	296
7	21	46	72		28	41	40	67	184	234	215	299
8	21	61	61		24	44	43	72	186	234	210	296
9	23	67	55	19	25	46	67	95	191	237	208	287
10	23	72	28		25	48	69	96	188	234	206	275
11	24	72	25		26	50	69	116	186	232	213	187
12	24	68	23		27	54	71	112	184	230	210	64
13	23	68	(*)	(*)	32	53	69	106	182	227	215	38
14	23	68			*29	56	71	101	182	224	234	35
15	23	68			30	58	88	98	182	222	234	33
16	23	68			33	61	88	96	180	220	232	32
17	23	74		20	37	68	85	99	180	224	232	32
18	24	74		20	40	89	84	102	180	244	227	32
19	24	72		21	41	91	80	95	174	253	224	32
20	23	71		22	44	91	49	91	174	244	224	32
21	23	71	19	23	46	48	58	88	174	242	222	31
22	22	72		24	49	44	109	101	172	237	220	26
23	22	72		24	53	46	109	109	172	234	217	12
24	22	72		26	53	46	118	108	170	234	217	12
25	22	72		22	29	50	112	106	174	232	215	12
26	22	72		18	29	55	106	114	174	230	215	12
27	22	73		20	29	57	96	134	174	224	213	12
28	22	73		50	28	58	92	126	174	222	215	12
29	22	74		60	-	61	98	122	174	222	270	12
30	22	74		40	-	62	105	120	170	222	270	12
31	21	-		20	-	64	-	110	-	222	270	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	705	27	21	22.7	1,400
November	1,804	74	21	60.1	3,580
December	1,056	73	-	34.1	2,090
Calendar year 1949	25,293	349	-	69.3	50,160
January	714	60	-	23.0	1,420
February	888	53	17	31.7	1,760
March	1,637	91	29	52.8	3,250
April	2,261	118	37	75.4	4,480
May	3,089	134	67	99.6	6,130
June	5,127	191	103	171	10,170
July	7,122	253	195	230	14,130
August	6,940	270	206	224	13,770
September	3,567	299	12	119	7,080
Water year 1949-50	34,910	299	12	95.6	69,260

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 11-18, 22-24, Jan. 7-9, 11, 17-22, Jan. 26 to Feb. 5. No gage-height record Dec. 19-21, Dec. 25 to Jan. 6, Jan. 10, 12-16, Aug. 29-31, Sept. 23-30; discharge computed on basis of discharge measurements, weather records, and records of gate operation for Otter Creek Reservoir.

Otter Creek Reservoir near Antimony, 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 to September 1914 and October 1945 to September 1950 in reports of Geological Survey. 1915, 1934-45 available in files of Salt Lake City district office, Geological Survey.

Extremes.--Maximum contents observed during year, 54,750 acre-feet Apr. 20 (gage height, 36.9 feet); minimum observed, 8,700 acre-feet Sept. 20 (gage height, 12.2 feet).
1914-15, 1934-50: Maximum contents observed, 55,000 acre-feet May 1, 1946, May 20, 1948, June 10, 20, 1949 (gage height, 37.0 feet); minimum, 400 acre-feet Aug. 1, Sept. 1, 20, Oct. 1, 1934.

Remarks.--Reservoir formed in 1891 by a 40-foot earth-fill, rock-faced dam, 5 feet added to height in 1901. Capacity, 52,500 acre-feet between gage heights 0.0 (bottom of outlet gate) and 36.0 feet (top of flashboards on spillway). Spillway crest is at gage height 33.5 feet. Reservoir stores water from Otter Creek and also water diverted from East Fork Sevier River, for irrigation in Sevier River Basin.

Contents, in acre-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37,400	39,680	40,640	43,280	46,160	50,250	53,750	53,750	48,800	38,000	25,680	13,560
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	38,000	-	-	44,480	-	52,250	54,500	52,500	45,680	33,800	23,160	9,000
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	38,480	40,400	41,640	45,440	48,800	52,750	54,750	51,000	41,840	30,400	17,500	8,700
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-

Monthly gage height and contents, water year October 1949 to September 1950

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	29.7	37,400	+2,280
Nov. 1	30.7	39,680	+960
Dec. 1	31.1	40,640	+2,640
Calendar year 1949	-	-	+25,780
Jan. 1	32.2	43,280	+2,880
Feb. 1	33.4	46,160	+4,090
Mar. 1	35.1	50,250	+3,500
Apr. 1	36.5	53,750	0
May 1	36.5	53,750	-4,950
June 1	34.5	48,800	-10,800
July 1	30.0	38,000	-12,320
Aug. 1	23.6	25,680	-12,120
Sept. 1	16.2	13,560	-4,260
Oct. 1	12.8	9,300	-
Water year 1949-50	-	-	-28,100

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.

Drainage area.--169 square miles.

Records available.--February 1912 to September 1919 and October 1940 to September 1950 in reports of Geological Survey. April 1934 to September 1950 in reports of Sevier River water commissioner.

Average discharge.--15 years (1912-17, 1940-50), 34.0 second-feet.

Extremes.--Maximum discharge during year, 100 second-feet June 2 (gage height, 2.37 feet); minimum, 1.0 second-feet Sept. 20, 21.
1912-19, 1940-50: Maximum discharge observed, 487 second-feet Aug. 7, 1941 (gage height, 4.05 feet); no flow Aug. 26, 1913.

Remarks.--Records good. Practically entire flow is diverted above station each year during latter part of irrigation season.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	12	9.2	14	10	17	22	24	94	16	2.9	1.2
2	2.6	11	8.2	14	9.5	17	27	24	95	15	2.7	1.2
3	2.6	10	5.1	10	12	17	29	27	91	13	2.6	1.1
4	2.4	10	2.4	8.2	16	17	20	30	83	12	2.9	1.2
5	2.6	9.8	6.7	12	16	19	20	31	75	13	3.3	1.2
6	2.6	9.8	13	11	18	19	20	32	73	12	3.1	1.9
7	2.6	9.8	14	12	19	14	22	32	80	19	2.6	1.7
8	2.9	9.5	13	14	12	17	24	33	70	20	2.4	1.7
9	3.5	2.2	11	16	12	18	23	30	57	21	2.3	1.5
10	3.8	2.3	10	13	13	17	18	27	52	18	2.3	1.5
11	4.4	2.6	6.7	16	17	16	23	25	57	15	2.3	1.4
12	4.4	2.4	6.4	16	14	14	23	27	60	11	2.3	1.4
13	4.2	2.4	8.8	12	10	11	21	27	56	6.9	2.3	1.4
14	4.0	2.7	9.5	16	16	17	21	24	54	5.1	2.3	1.4
15	3.8	2.7	10	12	14	17	20	27	52	4.0	2.3	1.2
16	3.8	3.1	12	15	14	16	23	30	46	3.3	2.3	1.2
17	3.6	3.1	13	16	15	16	28	35	42	4.0	2.3	1.2
18	3.8	3.1	14	16	14	17	27	42	39	8.8	2.2	1.3
19	4.2	3.1	15	16	14	17	26	46	37	6.4	1.5	1.4
20	3.8	3.1	14	16	16	20	26	48	34	5.9	1.7	1.2
21	3.8	2.9	12	16	16	18	27	52	32	6.4	1.5	1.2
22	5.9	2.6	14	16	12	19	32	58	30	4.9	1.2	1.1
23	13	2.4	13	16	15	19	40	65	28	5.1	1.2	1.2
24	12	2.4	14	16	15	19	40	65	27	6.4	1.2	1.2
25	9.5	2.7	12	14	15	20	33	64	25	5.6	1.4	1.4
26	9.5	3.1	11	7.2	16	19	29	65	23	5.6	1.7	1.5
27	11	2.6	13	12	17	18	28	64	21	6.7	1.5	1.7
28	12	2.4	12	17	18	18	28	68	19	5.9	1.5	1.7
29	13	2.4	12	16	-	17	27	70	18	5.4	1.7	1.5
30	14	4.9	13	16	-	20	25	73	16	3.3	1.7	1.5
31	13	-	12	16	-	22	-	88	-	2.9	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	185.0	14	2.4	5.97	367
November	143.1	12	2.2	4.77	284
December	340.0	15	2.4	11.0	674
Calendar year 1949	11,658.8	158	2.2	31.9	23,130
January	437.4	17	7.2	14.1	868
February	405.5	19	9.5	14.5	804
March	542	22	11	17.5	1,080
April	772	40	18	25.7	1,530
May	1,353	88	24	43.6	2,680
June	1,486	95	16	49.5	2,950
July	287.6	21	2.9	9.28	570
August	64.7	3.3	1.2	2.09	128
September	41.3	1.9	1.1	1.38	81.9
Water year 1949-50	6,055.4	95	1.1	16.6	12,020

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 1917 (fragmentary), October 1917 to September 1919, November 1942 to September 1950. July 1900 to April 1901 at site 5 miles upstream, published as Salina Creek near Salina.

Extremes.--Maximum discharge during year, 190 second-feet May 22 (gage height, 2.05 feet); no flow for several days in August and September.
1914-19, 1942-50: Maximum discharge, 926 second-feet May 15, 1948 (gage height, 3.87 feet), from rating curve extended above 400 second-feet; no flow for several days in August and September 1950.

Remarks.--Records good except those for periods of ice effect, which are fair, and those for periods of no gage-height record, which are poor. Diversions above station for irrigation. Releases from desilting facilities above station affected maximum discharge.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	8.6	10	15	11	24	1.6	0.8	6.0	0.9	0.3	0
2	.8	9.2	10	18	10	24	3.5	1.0	3.5	.8	.3	0
3	.8	8.6	10	11	14	24	2.5	1.2	2.5	.8	.4	0
4	1.0	6.5	12	8.1	18	23	1.2	1.9	1.9	1.0	.6	0
5	1.2	8.1	9.7	12	19	26	2.2	1.3	1.9	.8	.8	0
6	1.3	7.0	11	15	26	26	1.6	2.2	1.3	.6	.5	0
7	1.3	6.5	12	15	21	14	1.2	2.2	2.2	.8	.4	.1
8		9.4	14	17	11	19	1.2	2.2	2.5	1.2	.6	.6
9		9.2	16	17	8.6	23	1.2	1.9	1.0	1.9	.6	.6
10		10	14	17	11	24	1.2	1.2	1.0	2.5	.3	.5
11			9.7	16	15	23	1.0	1.3	1.2	1.6	.6	.3
12			6.6	18	14	15	1.0	1.6	1.0	.9	.6	.4
13			9.5	20	*13	4.4	2.2	1.9	1.9	.5	.6	.8
14			11	19	17	9.2	2.2	6.5	1.3	.6	.5	.8
15			12	15	19	11	3.5	7.3	1.9	.9	.4	.4
16	2		13	15	20	14	2.5	14	1.0	.8	0	.3
17			14	19	22	22	1.3	17	1.0	.9	.6	.3
18			15	*22	21	27	2.2	20	1.2	1.0	.9	.5
19			*19	21	23	23	1.6	22	1.0	1.2	.5	.6
20		9	14	18	24	29	1.6	25	1.2	.9	.3	.4
21			14	20	24	23	1.6	34	1.2	.9	.4	0
22			14	19	18	26	1.2	50	1.0	.6	.5	.3
23			12	21	22	23	2.2	43	1.0	.6	.4	.5
24			14	18	23	14	1.9	33	1.2	.8	.2	.1
25			12	13	24	1.9	1.2	33	1.3	.8	.1	.5
26	7		11	8.0	26	1.3	1.6	31	1.6	.9	.4	.6
27			12	11	29	1.0	1.6	17	1.3	1.0	.3	.6
28		h9.7	14	13	32	1.0	.9	17	1.2	.9	0	.3
29		11	15	15	-	1.2	.6	14	.9	.9	0	.1
30		7.6	14	14	-	1.3	.6	7.0	.9	1.0	0	.1
31	h7.6	-	14	13	-	1.2	-	8.6	-	.5	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	95.8	-	0.8	3.09	190
November	264.4	-	6.5	8.81	524
December	388.5	19	6.6	12.5	771
Calendar year 1949	8,192.6	206	.4	22.4	16,260
January	493.1	22	8.0	15.9	978
February	535.6	32	8.6	19.1	1,060
March	499.5	29	1.0	16.1	991
April	49.9	3.5	.6	1.66	99.0
May	420.1	50	.8	13.6	833
June	48.1	6.0	.9	1.60	95.4
July	29.5	2.5	.5	.95	58.5
August	12.2	.9	0	.39	24.2
September	9.7	.8	0	.32	19.2
Water year 1949-50	2,846.4	50	0	7.80	5,640

* Winter discharge measurement made on this day.
h Computed from staff-gage readings.
Note.--Stage-discharge relation affected by ice Dec. 19 to Feb. 5. No gage-height record Oct. 2, 3, 8-30, Nov. 11-27, Dec. 1-3, 12-18; discharge computed on basis of discharge measurements, weather records, and records for Clear Creek at Sevier.

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 1950. May to July 1914 at site 1½ miles upstream.

Extremes.--Maximum discharge during year, 164 second-feet May 18; minimum daily, 6.8 second-feet Dec. 11.
1914, 1944-50: Maximum discharge, 490 second-feet May 9, 1914 (gage height, 3.40 feet, site and datum then in use); minimum daily, 5.9 second-feet Dec. 25, 1948.

Remarks.--Records good except those for period of ice effect, which are fair. 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 the head of Fillmore Canal. One small irrigation diversion above station.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	11	11	12	9.4	18	24	64	103	24	14	10
2	12	11	11	12	7.0	18	30	61	97	23	14	10
3	12	11	11	7.2	9.7	17	37	64	89	24	13	10
4	12	11	10	b7	14	17	38	66	81	23	13	10
5	11	11	11	b7	14	18	36	66	75	22	13	10
6	12	11	10	b8	14	18	37	62	69	24	13	10
7	12	11	10	b9	15	18	43	58	68	25	12	11
8	13	11	10	b9	13	18	48	56	61	26	12	12
9	14	11	10	b9	14	17	50	55	54	23	12	11
10	14	12	11	b9	14	17	46	55	51	21	13	11
11	8.9	12	6.8	b9	15	16	43	63	49	20	13	11
12	8.8	12	7.0	b9	14	14	42	80	48	19	13	11
13	9.7	12	8.6	b9	13	14	43	98	46	18	12	11
14	9.7	11	10	b9	14	15	49	116	44	18	12	10
15	9.9	11	11	b8.5	14	14	51	128	42	18	12	11
16	9.9	11	11	b9	14	14	52	144	40	17	11	11
17	10	11	11	b10	14	14	60	161	38	17	11	10
18	11	11	11	b12	14	15	72	161	37	21	11	10
19	12	11	12	12	15	15	75	159	35	22	11	10
20	12	11	11	12	16	16	78	152	34	18	10	10
21	12	11	9.9	12	16	15	85	151	32	17	11	10
22	12	11	11	12	15	16	98	151	32	16	11	10
23	12	11	11	13	16	16	108	154	31	16	10	10
24	11	11	12	13	15	17	110	148	30	15	10	10
25	11	11	9.0	12	16	19	98	144	30	16	10	10
26	11	11	10	9.5	16	18	92	136	28	17	10	10
27	11	11	11	13	17	18	91	127	26	18	10	10
28	11	11	11	14	17	18	87	121	26	17	10	10
29	11	11	11	13	-	18	76	116	26	15	10	10
30	11	11	11	12	-	19	69	110	24	15	10	10
31	11	-	11	12	-	20	-	108	-	15	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	349.9	14	8.8	11.3	694
November	334	12	11	11.1	662
December	322.3	12	6.8	10.4	639
Calendar year 1949	10,135.0	131	6.8	27.8	20,100
January	324.2	14	7	10.5	643
February	395.1	17	7.0	14.1	784
March	517	20	14	16.7	1,030
April	1,868	110	24	62.3	3,710
May	3,335	161	55	108	6,610
June	1,446	103	24	48.2	2,870
July	600	26	15	19.4	1,190
August	357	14	10	11.5	708
September	310	12	10	10.3	615
Water year 1949-50	10,158.5	161	6.8	27.8	20,160

b Stage discharge relation affected by ice.

Three Creeks near Beaver, Utah

Location.--Water-stage recorder, lat. 38°17'40", long. 112°25'40", in NW¼NW¼ sec. 16, T. 29 S., R. 5 W., about half a mile downstream from Three Creeks Dam, half a mile upstream from Merchant Creek, and 16 miles east of Beaver, Utah. Prior to May 12, 1950, at site an eighth of a mile upstream at different datum.

Drainage area.--19.5 square miles.

Records available.--July 1947 to September 1950.

Extremes.--Maximum discharge during year, 30 second-feet May 23 (gage height, 2.16 feet); minimum daily recorded, 3.3 second-feet Sept. 30, but may have been less during period of no gage-height record.

1947-50: Maximum discharge, 290 second-feet Aug. 9, 1947 (gage height, 4.35 feet, site and datum then in use), by slope-area method; minimum not determined, occurred during period of no gage-height record.

Remarks.--Records good except those for period of no gage-height record, which are poor. Flow regulated by Puffer Lake and Three Creeks Reservoir (capacity, 2,020 acre-feet) completed in 1950.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.7	6.4						11	19	9.1	6.3	4.1
2	7.7	6.3						12	18	8.8	6.3	4.1
3	7.7	6.3						13	17	8.6	6.3	4.1
4	7.5	6.3						12	16	8.6	6.3	3.9
5	7.5	6.3						10	15	8.8	6.1	3.9
6	7.5	6.1						9.5	15	8.8	6.1	3.9
7	7.5	6.1						9.0	15	10	5.8	4.3
8	7.7	6.1					6	8.5	15	11	5.8	4.5
9	7.7	6.1						8.5	14	9.7	5.5	5.0
10	7.5	6.1						8.5	13	8.8	6.1	4.3
11	7.5	6.3						8.7	13	8.3	7.4	4.1
12	7.7	6.1						9.1	13	8.3	6.1	4.1
13	7.5	6.1						9.7	13	8.3	5.8	4.1
14	7.5	5.9						11	13	7.7	5.5	3.9
15	7.5	5.9						12	13	7.4	5.5	3.9
16	7.5	5.9	4.5	4	3.5	4		14	12	7.4	5.3	3.9
17	7.5	5.9						16	12	8.6	5.0	3.9
18	7.7	5.9						18	12	12	4.8	3.7
19	7.5	5.7						20	12	9.4	4.8	3.7
20	7.3	5.7						22	12	8.8	4.8	3.9
21	7.3	5.7						26	12	8.3	4.5	3.9
22	7.0							28	11	8.0	4.5	3.7
23	7.0						11	27	11	8.0	4.5	3.7
24	6.8							23	11	8.3	4.5	3.5
25	6.8	e5.3						27	11	8.0	4.5	3.7
26	6.6							24	11	8.3	4.3	3.5
27	6.6							23	10	7.7	4.3	3.5
28	6.4							22	9.7	7.1	4.3	3.5
29	6.6	5.3			-			21	9.4	6.8	4.3	3.5
30	6.4				-			20	9.4	6.6	4.3	3.3
31	6.4	-			-		-	20	-	6.6	4.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	225.1	7.7	6.4	7.26	446
November	174.9	6.4	-	5.83	347
December	139.5	-	-	4.5	277
Calendar year 1949	5,478.8	83	-	15.0	10,860
January	124	-	-	4	246
February	98	-	-	3.5	194
March	124	-	-	4	246
April	255	-	-	8.50	506
May	503.5	28	8.5	16.2	999
June	387.5	19	9.4	12.9	769
July	262.1	12	6.6	8.45	520
August	163.9	7.4	4.3	5.29	325
September	117.1	5.0	3.3	3.90	232
Water year 1949-50	2,574.6	28	-	7.05	5,110

e Part of flow bypassing station, gage heights not representative of total flow; discharge computed as explained in footnote for no gage-height record.

Note.--No gage-height record Nov. 28 to May 11; discharge computed on basis of discharge measurements, weather records, and records for Beaver River near Beaver and Center Creek near Parowan.

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 4¼ miles east of Beaver.

Drainage area.--82 square miles.

Records available.--June to September 1906, March 1914 to September 1950.

Average discharge.--36 years (1914-50), 56.1 second-feet.

Extremes.--Maximum discharge during year, 164 second-feet May 21 (gage height, 2.95 feet); minimum daily, 14 second-feet Aug. 30, Sept. 2-4.
1914-50: 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 period of ice effect or no gage-height record, which are fair. No diversions 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	24	23	21	18	27	28	60	119	33	22	15
2	23	24	22	19	15	27	31	63	110	30	20	14
3	25	23	20	15	18	25	37	70	100	36	20	14
4	27	23	18	15	21	26	34	66	95	32	20	14
5	26	23	18	15	19	27	34	57	91	33	19	15
6	26	23	17	17	22	25	33	54	87	33	17	15
7	25	23	23	19	22	24	40	50	82	38	19	16
8	27	23	22	19	21	23	41	46	75	47	19	16
9	26	23	26	19	21	24	35	47	69	37	19	20
10	28	24	24	19	21	23	29	46	66	38	18	18
11	28	23	15	19	21	22	34	48	64	32	20	17
12	30	24	16	19	22	21	35	49	61	31	23	15
13	29	23	18	19	22	21	35	50	58	30	19	16
14	29	23	20	19	22	22	37	60	57	27	22	16
15	30	24	*22	17	22	22	34	66	54	24	20	15
16	30	25	22	19	*21	22	35	89	53	25	20	18
17	32	24	22	21	22	*23	40	98	52	29	20	16
18	29	24	22	*h24	22	21	49	104	50	50	20	16
19	27	24	23	20	21	22	52	110	49	41	19	15
20	28	24	20	22	22	22	58	123	48	35	18	16
21	24	24	19	21	22	22	73	137	47	29	18	16
22	22	23	21	20	24	21	82	141	46	24	18	16
23	22	23	21	22	20	21	93	132	44	25	16	15
24	24	22	21	22	22	22	87	116	42	25	21	16
25	25	23	20	20	24	22	75	125	40	27	21	19
26	28	22	20	19	26	21	82	123	38	28	20	16
27	26	22	21	19	29	22	84	123	37	32	18	16
28	24	23	21	21	29	22	77	125	36	25	18	16
29	23	23	21	22	-	22	62	123	36	22	15	17
30	25	23	21	21	-	22	61	123	35	22	14	17
31	24	-	21	21	-	23	-	123	-	21	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	816	32	22	26.3	1,620
November	699	25	22	23.3	1,390
December	640	26	15	20.6	1,270
Calendar year 1949	23,611	333	-	64.7	46,840
January	605	24	15	20.0	1,200
February	611	29	15	21.8	1,210
March	709	27	21	22.9	1,410
April	1,528	93	28	50.9	3,030
May	2,747	141	46	88.6	5,450
June	1,841	119	35	61.4	3,650
July	961	50	21	31.0	1,910
August	588	23	14	19.0	1,710
September	481	20	14	16.0	954
Water year 1949-50	12,226	141	14	33.5	24,260

Peak discharge (base, 250 sec.-ft.).--No peak above base.
* Winter discharge measurement made on this day.
h Computed from staff-gage reading.
Note.--Stage-discharge relation affected by ice Dec. 11-15, Dec. 19 to Jan. 8, Jan. 25-28, Feb. 1-3, 8-10, 13, Mar. 12-14. No gage-height record Dec. 16-18, Jan. 9-17; discharge computed on basis of discharge measurements, weather records, and records for Beaver River at Adamsville.

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.

Drainage area.--272 square miles.

Records available.--December 1913 to September 1936, October 1937 to September 1950.

Average discharge.--34 years (1914-36, 1938-50), 37.9 second-feet.

Extremes.--Maximum discharge during year, 266 second-feet Feb. 6 (gage height, 3.03 feet); minimum, 0.2 second-foot Sept. 30.
1913-36, 1937-50: 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 diversion 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	47	47	42	47	50	27	1.7	2.1	0.6	1.9	0.6
2	12	55	47	38	45	50	23	1.7	2.6	.6	1.9	.4
3	12	56	48	31	47	47	18	1.8	3.3	.6	1.7	.4
4	12	57	45	31	52	42	5.0	2.3	3.4	.6	1.5	.3
5	12	56	44	31	65	44	2.6	3.8	3.1	.6	1.4	.3
6	13	53	43	35	143	42	2.2	3.4	2.6	.6	1.4	.4
7	13	50	46	37	86	43	2.5	3.3	2.8	1.5	1.2	.5
8	14	50	47	37	64	43	1.4	3.1	3.1	1.7	1.0	.5
9	18	52	47	37	58	42	1.5	3.3	2.9	2.1	.9	.4
10	19	57	47	37	56	41	1.4	3.6	2.8	1.7	.9	.4
11	18	62	44	37	55	40	1.6	3.4	2.3	1.5	1.0	.4
12	19	58	36	a37	54	41	1.6	2.9	2.3	1.9	1.2	.5
13	26	57	37	a37	53	41	1.7	2.6	2.2	1.3	1.2	.6
14	30	56	39	a37	58	38	1.7	2.3	2.3	1.0	1.0	.5
15	34	54	*41	a35	62	43	2.3	2.5	2.3	1.0	.8	.4
16	34	55	42	a41	*61	43	2.2	2.5	2.5	.8	.8	.4
17	33	55	43	*50	62	41	2.2	2.9	1.9	.8	.8	.3
18	33	56	44	54	61	41	2.1	2.8	1.6	25	.6	.2
19	37	55	42	48	60	42	1.9	3.3	1.4	12	.7	.3
20	39	54	39	48	58	42	1.9	3.1	1.2	3.8	.7	.4
21	38	52	39	55	53	42	2.2	2.9	1.2	2.6	.6	.3
22	20	50	40	60	52	41	2.3	2.9	1.1	2.3	.6	.2
23	44	49	40	65	49	36	2.1	2.3	1.0	1.9	.5	.3
24	43	50	40	58	48	36	1.9	2.3	1.0	1.8	.5	.4
25	42	48	39	53	48	41	1.8	1.9	1.0	1.6	.6	.4
26	41	46	39	48	50	47	1.8	2.1	1.0	2.5	.6	.5
27	41	45	40	60	52	47	1.8	2.2	.9	3.3	.5	.5
28	40	47	40	61	53	44	1.7	2.5	.9	3.4	.5	.5
29	40	47	40	54	-	42	1.7	2.6	.8	3.1	.4	.3
30	39	45	40	52	-	38	1.7	2.3	.6	2.3	.5	.3
31	39	-	40	49	-	35	-	1.9	-	2.1	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	887	44	12	28.6	1,760
November	1,573	62	45	52.4	3,120
December	1,305	48	36	42.1	2,590
Calendar year 1949	17,326.6	271	6.4	47.5	34,380
January	1,395	65	31	45.0	2,770
February	1,652	143	45	59.0	3,280
March	1,305	50	35	42.1	2,590
April	122.8	27	1.4	4.09	244
May	82.2	3.8	1.7	2.65	163
June	58.2	3.4	.6	1.94	115
July	86.6	25	.6	2.79	172
August	28.4	1.9	.4	.92	56
September	11.9	.6	.2	.40	24
Water year 1949-50	8,507.1	143	.2	23.3	16,880

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of discharge measurements, weather records, and records for Beaver River near Beaver and Chalk Creek near Fillmore.
Note.--Stage-discharge relation affected by ice Dec. 13 to Jan. 11, Feb. 2-4.

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 1950.

Extremes.--Maximum contents observed during year, 20,500 acre-feet Mar. 31, Apr. 8, (gage height, 48.4 feet); minimum observed, 2,650 acre-feet Sept. 1, 10 (gage height, 19.5 feet).
1937-50: 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 0.0 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,360	-	-	-	-	-	-	-	-	8,690	-	2,650
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	19,740	-	-	-	-	-	-
5	-	10,200	-	-	-	-	-	-	-	-	5,750	-
6	-	-	-	-	-	-	-	17,850	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	8,420	-	-	-	-	-	20,500	-	-	7,870	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	13,510	-	-	-	-	-	-	-	-	2,650
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	10,940	-	-	-	-	-	-	-	-	4,830	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	8,640	-	-	15,530	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	7,270	-	-
17	-	-	14,640	-	-	-	-	-	-	-	-	2,740
18	-	-	-	-	18,800	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	11,620	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	7,050	-	-
23	9,250	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	9,590	6,560	4,020	-
25	-	-	-	-	19,180	20,300	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	3,380	-
28	-	-	-	-	a19,400	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	9,590	a12,600	-	-	-	-	a19,200	-	a8,700	-	-	a2,810
31	a9,700	-	a15,200	a17,200	-	20,500	-	a13,000	-	a6,000	2,700	-

a No gage-height record; contents computed on basis of records of inflow and outflow.

Monthly gage height and contents, water year October 1949 to September 1950

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	-	a8,360	-
Oct. 31	-	a9,700	+1,340
Nov. 30	-	a12,600	+2,900
Dec. 31	-	a15,200	+2,600
Calendar year 1949	-	-	+5,880
Jan. 31	-	a17,200	+2,000
Feb. 28	-	a19,400	+2,200
Mar. 31	48.4	20,500	+1,100
Apr. 30	-	a19,200	-1,300
May 31	-	a13,000	-6,200
June 30	-	a8,700	-4,300
July 31	-	a6,000	-2,700
Aug. 31	-	a2,700	-3,300
Sept.30	20.0	2,810	+110
Water year 1949-50	-	-	-5,550

a No gage-height record; contents computed on basis of records of inflow and outflow.

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 1950.

Average discharge.--35 years (1914-36, 1937-50), 40.0 second-feet.

Extremes.--Maximum daily discharge during year, 120 second-feet May 19; minimum daily, 4.9 second-feet Sept. 10-30.
1913-50: Maximum discharge, 727 second-feet June 10, 1921 (gage height, 3.53 feet); minimum, 0.3 second-foot Mar. 19, 20, 1914.

Remarks.--Records good. One small diversion between dam and station. Flow regulated by Rockyford Reservoir (see preceding page). Several diversions above reservoir for irrigation and municipal supply.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.9	12	7.5	8.7	12	13	14	95	93	81	60	30
2	6.9	12	7.5	8.7	12	13	15	97	93	81	60	14
3	6.9	12	8.1	8.7	12	13	17	97	92	79	65	12
4	6.9	12	8.1	8.7	12	13	14	95	92	79	68	11
5	11	12	8.1	8.7	12	13	14	93	90	79	68	11
6	15	12	8.1	8.7	13	13	14	93	88	79	68	11
7	18	12	8.1	8.7	13	13	14	93	79	62	68	11
8	18	12	7.5	8.7	13	13	14	93	79	48	68	11
9	17	9.3	8.1	8.7	13	13	14	103	78	50	68	6.9
10	17	7.5	8.1	8.7	14	12	14	105	78	68	68	4.9
11	17	7.5	8.1	8.7	14	12	14	105	78	78	68	4.9
12	17	6.9	7.5	9.3	14	12	14	105	78	65	68	4.9
13	17	6.9	7.5	9.3	14	12	14	105	76	63	68	4.9
14	17	6.9	7.5	9.3	14	12	14	108	76	63	68	4.9
15	17	6.9	7.5	9.3	14	12	14	112	76	68	66	4.9
16	17	6.9	7.5	9.3	15	12	13	112	78	70	65	4.9
17	16	6.9	7.5	9.3	15	12	13	118	79	71	65	4.9
18	16	6.9	7.5	9.3	15	12	14	118	78	73	63	4.9
19	11	6.9	7.5	10	15	12	14	120	78	62	63	4.9
20	6.4	6.9	7.5	10	15	12	13	118	78	47	62	4.9
21	6.4	6.9	7.5	11	15	12	14	116	66	34	62	4.9
22	6.4	6.9	7.5	11	14	12	14	116	70	33	62	4.9
23	6.4	6.9	7.5	11	14	12	13	116	83	33	60	4.9
24	6.4	6.9	7.5	11	14	12	14	116	81	33	59	4.9
25	6.4	6.9	7.5	11	14	13	32	116	81	53	58	4.9
26	6.4	6.9	7.5	11	14	13	57	114	81	66	56	4.9
27	6.4	6.9	7.5	11	13	14	78	114	81	65	56	4.9
28	8.1	6.9	7.5	11	13	14	78	114	81	63	56	4.9
29	11	6.9	7.5	11	-	13	79	112	81	62	53	4.9
30	11	6.9	7.5	12	-	14	81	112	81	60	53	4.9
31	11	-	8.1	12	-	14	-	105	-	60	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	360.9	18	6.4	11.6	716
November	251.4	12	6.9	8.38	499
December	237.9	8.1	7.5	7.67	472
Calendar year 1949	15,299.0	149	5.8	41.9	30,340
January	303.8	12	8.7	9.80	603
February	382	15	12	13.6	758
March	392	14	12	12.6	778
April	741	81	13	24.7	1,470
May	3,336	120	93	108	6,620
June	2,423	93	66	80.8	4,810
July	1,928	81	33	62.2	3,820
August	1,944	68	52	62.7	3,860
September	220.8	30	4.9	7.36	438
Water year 1949-50	12,520.8	120	4.9	34.3	24,840

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 1950.

Extremes.--Maximum discharge during year, 32 second-feet May 17 (gage height, 1.99 feet); minimum, 6.3 second-feet Mar. 29.
1942-50: Maximum discharge, 386 second-feet Aug. 5, 1945 (gage height, 4.59 feet), from rating curve extended above 52 second-feet by logarithmic plotting; minimum, 3.9 second-feet Mar. 5, 1944.

Remarks.--Records good. 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	13	12	11	10	11	12	17	20	17	13	10
2	14	13	12	11	9.3	11	12	19	23	16	12	10
3	14	13	12	9.6	11	11	12	19	23	16	12	10
4	14	13	11	9.8	11	11	11	17	22	16	12	10
5	14	13	12	10	11	11	12	16	22	16	12	11
6	14	12	12	10	11	11	12	18	22	16	12	11
7	14	12	11	11	11	11	13	17	22	16	12	11
8	15	12	11	11	10	11	13	16	22	16	12	12
9	15	12	11	12	10	11	13	16	21	17	12	11
10	16	12	11	11	10	11	13	16	21	15	12	10
11	15	12	11	11	11	11	13	16	20	14	14	10
12	15	12	11	12	11	11	13	16	20	14	13	9.3
13	14	12	9.6	11	10	11	14	17	20	14	13	9.0
14	14	12	9.6	12	10	11	14	18	20	14	13	9.6
15	14	12	10	11	10	11	13	19	20	13	12	9.8
16	14	12	11	11	10	11	13	21	20	14	12	9.8
17	14	12	12	12	11	11	13	23	20	14	12	9.8
18	15	12	12	12	11	11	14	25	20	14	12	9.6
19	14	12	12	12	11	11	14	25	19	13	11	9.6
20	14	12	12	12	11	11	15	25	19	13	11	9.6
21	13	12	11	12	11	11	17	24	19	13	11	9.6
22	15	12	11	12	10	11	18	23	19	13	11	9.3
23	14	12	11	11	11	11	18	23	19	13	11	9.3
24	14	12	11	12	11	11	19	22	19	14	11	9.3
25	14	12	11	11	11	12	17	21	19	14	11	9.3
26	14	12	11	9.0	11	11	18	20	18	14	11	9.3
27	14	12	11	10	11	11	20	19	18	14	11	9.3
28	14	12	11	12	11	11	20	19	18	13	11	9.3
29	13	12	11	11	-	11	16	19	17	13	11	9.0
30	13	12	11	11	-	11	16	18	17	12	11	9.3
31	13	-	11	11	-	12	-	19	-	13	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	439	16	13	14.2	871
November	365	13	12	12.2	724
December	346.2	12	9.6	11.2	687
Calendar year 1949	8,605.9	75	-	23.6	17,080
January	344.4	12	9.0	11.1	683
February	297.3	11	9.3	10.6	590
March	343	12	11	11.1	680
April	438	20	11	14.6	869
May	603	25	16	19.5	1,200
June	599	23	17	20.0	1,190
July	444	17	12	14.3	881
August	364	14	10	11.7	722
September	294.9	12	9.0	9.83	585
Water year 1949-50	4,877.8	25	9.0	13.4	9,680

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 1950. May 1915 to November 1919 (records do not include flow of power canal operated prior to November 1919 but would be equivalent if flow of power canal is added).

Average discharge.--14 years (1935-37, 1938-50), 33.9 second-feet.

Extremes.--Maximum discharge during year, 211 second-feet Apr. 27 (gage height, 2.78 feet); minimum recorded, 6.5 second-feet Aug. 30, 31, but may have been less during period of ice effect or no gage-height record.

1935-50: 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 good except those for period of ice effect or no gage-height record, which are fair. No diversion above station for irrigation.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	13	a12	7.9		17	32	93	55	14	9.4	7.2
2	11	13	a11	7.9		15	37	100	49	13	9.4	7.2
3	11	12	*all		b11	15	33	85	44	13	9.0	7.9
4	11		b10			18	28	65	40	14	9.0	7.9
5	11		b10			19	30	65	38	15	9.0	9.0
6	11		b11		11	16	34	60	36	15	8.7	9.0
7	11		12		11	15	36	54	29	18	8.3	8.7
8	12		13		9.4	15	38	49	31	24	8.3	12
9	12		13	all	b10	14	31	48	28	18	7.9	9.7
10	13		13		b10	14	30	51	28	15	8.7	8.3
11	13				11	14	31	57	25	14	18	7.9
12	13				b11	13	35	60	25	14	9.4	7.9
13	12				b11	16	37	72	25	13	8.3	7.9
14	12				b11	16	37	81	23	12	7.9	7.9
15	12				11	15	33	88	22	12	7.9	7.9
16	12	a12	b11	(*)	12	15	38	93	22	12	7.9	7.9
17	12				*16	15	48	92	21	12	7.6	7.9
18	16				20	14	55	92	21	13	7.6	7.9
19	14				21	15	57	92	20	12	7.6	7.9
20	14				20	16	72	93	20	11	7.2	7.9
21	13				16	15	87	93	18	11	7.6	7.9
22	14		all		16	17	109	87	18	11	7.6	7.9
23	14		*all		16	18	129	87	17	11	7.6	7.6
24	14			b11	17	20	121	82	17	12	7.6	7.6
25	13		b11		20	20	102	76	16	16	7.6	7.6
26	13				20	16	114	72	15	17	7.6	7.6
27	13				20	18	135	68	15	11	7.2	7.6
28	13				19	18	116	66	15	10	7.2	7.6
29	13		all		-	18	82	64	14	9.7	6.9	7.6
30	13				-	22	88	61	14	9.7	6.9	7.6
31	13	-	b11	(*)	-	26	-	59	-	9.4	6.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	390	16	11	12.6	774
November	362	-	-	12.1	718
December	347	-	-	11.2	688
Calendar year 1949	14,142.1	274	-	38.7	28,050
January	334.8	-	-	10.8	664
February	394.4	21	-	14.1	782
March	515	26	13	16.6	1,020
April	1,855	135	28	61.8	3,680
May	2,305	100	48	74.4	4,570
June	761	55	14	25.4	1,510
July	411.8	24	9.4	13.3	817
August	257.8	18	6.9	8.32	511
September	242.5	12	7.2	8.08	481
Water year 1949-50	8,176.3	135	6.9	22.4	16,220

Peak discharge (base, 350 sec.-ft.).--No peak above base.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of discharge measurements, weather records, and records for Center Creek near Parowan and Beaver River near Beaver.

b Stage-discharge relation affected by ice.

Baker Creek at narrows, near Baker, Nev.

Location.--Water-stage recorder, lat. 38°59', long. 114°13', in sec. 22, T. 13 N., R. 69 E., half a mile downstream from Pole Canyon, 1 mile downstream from narrows, and 4¾ miles southwest of Baker.

Records available.--December 1947 to September 1950.

Extremes.--Maximum discharge during year, 54 second-feet May 31 (gage height, 1.84 feet); minimum recorded, 0.7 second-foot Feb. 21, but may have been less during periods of ice effect.

1947-50: Maximum discharge, 146 second-feet June 16, 1949 (gage height, 2.43 feet), from rating curve extended above 60 second-feet by logarithmic plotting; minimum recorded, 0.6 second-foot Mar. 11, 1948, but may have been less during periods of ice effect.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	3.2	2.7	2.0		1.6	2.5	7.2	46	11	5.5	2.6
2	2.3	3.1	2.6	2.0		1.6	2.8	7.7	44	11	5.6	2.6
3	2.2	3.2	2.7	1.8		1.7	2.9	8.7	37	11	5.2	2.5
4	2.3	3.1	2.7	2.2		1.8	2.7	8.1	33	10	4.9	2.5
5	2.3	3.0	2.7	2.3		1.9	2.7	8.3	32	10	4.8	2.5
6	2.4	3.0	2.7	2.3		1.9	2.8	8.7	32	10	4.8	2.6
7	2.4	3.0	2.7	2.3		2.0	2.9	8.3	31	11	4.4	2.7
8	2.7	3.0	2.7	2.3		b1.9	3.0	8.9	25	11	4.4	3.1
9	2.7	3.0	2.7	2.3	b1.4	b1.9	2.9	8.5	21	11	4.3	2.8
10	2.9	2.7	b2.5	2.3		1.8	2.7	8.5	18	10	4.3	2.8
11	2.9	2.6	b2.3	2.3			2.9	8.5	17	9.7	4.1	3.2
12	2.9	3.1	2.4	2.3			2.9	8.3	17	9.5	4.1	3.2
13	2.9	3.3	2.4	2.2			2.9	8.1	17	9.3	3.9	2.9
14	2.9	3.3		2.2		b1.7	2.8	8.1	17	8.9	3.8	2.9
15	2.9	3.2		2.2			2.7	8.3	17	8.5	3.7	3.0
16	2.9	3.1	*b2.2	2.2		(*)	2.9	8.9	16	8.3	3.6	3.0
17	2.9	*3.1		*2.3	1.0	1.8	3.1	9.7	16	8.3	3.5	3.0
18	2.9	3.1		2.4	.9	1.7	3.1	11	16	8.3	3.5	3.0
19	2.4	3.1		2.2	.9	1.8	3.2	12	16	7.7	3.5	3.1
20	2.6	3.1	2.5	2.2	.9	1.9	3.7	13	15	7.3	3.2	3.0
21	3.0	3.0	2.3	2.2	b1.1	1.9	4.1	15	15	7.3	3.2	3.1
22	3.5	3.1	2.3	2.3	b1.2	1.9	4.9	16	15	7.0	3.1	3.0
23	3.3	3.0	2.3	2.3	*1.3	1.9	5.2	20	15	6.8	3.0	3.0
24	3.2	3.0	2.2		1.4	2.0	5.2	21	14	6.6	3.0	2.9
25	3.3	3.0	2.2		1.5	2.0	5.4	21	13	6.5	2.9	2.9
26	3.5	3.0	2.2		1.6	2.0	5.8	23	13	6.5	2.8	2.8
27	3.5	3.0	2.2	b1.9	1.6	2.2	6.3	25	12	6.3	2.8	2.9
28	3.5	3.0	2.2		1.6	2.0	6.6	27	12	6.0	2.7	2.9
29	3.5	3.0	2.2		-	2.0	6.6	29	12	5.8	2.6	2.8
30	3.3	2.8	2.2		-	2.2	6.8	31	11	5.6	2.6	3.0
31	3.2	-	2.0		-	2.4	-	47	-	5.5	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	89.5	3.5	2.2	2.89	178
November	91.2	3.3	2.6	3.04	181
December	73.8	-	-	2.38	146
Calendar year 1949	3,972.9	127	-	10.9	7,880
January	66.3	-	-	2.14	132
February	37.4	-	-	1.34	74
March	58.0	-	-	1.87	115
April	115.0	6.8	2.5	3.83	228
May	453.8	47	7.2	14.6	900
June	615	46	11	20.5	1,220
July	261.7	11	5.5	8.44	519
August	116.4	5.6	2.6	3.75	231
September	86.3	3.2	2.5	2.88	171
Water year 1949-50	2,064.4	47	-	5.66	4,100

Peak discharge (base, 20 sec.-ft.).--May 31 (9 p.m.) 54 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Lehman Creek near Baker, Nev.

Location.--Water-stage recorder, lat. 39°01', long. 114°13', in sec. 10, T. 13 N., R. 69 E., 4¼ miles west of Baker.

Records available.--December 1947 to September 1950.

Extremes.--Maximum discharge during year, 16 second-feet June 7 (gage height, 1.13 feet); minimum not determined, occurred during period of ice effect or no gage-height record.
1947-50: Maximum discharge, 34 second-feet June 19, 1949; minimum not determined.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	2.5	1.8			1.3	1.3	2.8	12	9.2	5.0	2.2
2	3.0	2.5	1.8			1.3	1.3	2.8	12	9.2	5.0	2.0
3	3.0	2.3	b1.8			1.3	1.4	3.0	13	9.2	5.0	2.2
4	2.8	2.3	b1.8		b1.3	1.3	1.3	3.0	13	8.7	5.0	2.2
5	2.8	2.0	1.9			1.3	1.4	3.2	13	8.7	4.8	2.2
6	2.6	2.0	b1.9			1.3	1.4	3.2	14	8.7	4.8	2.3
7	2.6	2.0	1.9		1.3	b1.3	1.5	3.0	15	9.2	4.5	2.3
8	2.8	2.0	1.9		1.2	b1.3	1.5	3.4	15	9.2	4.5	2.5
9	3.0	2.0	1.9	a1.6	b1.2	b1.3	1.5	3.4	14	9.2	4.5	2.5
10	3.0	2.0	b1.7		b1.2	1.3	1.5	3.6	14	8.7	4.5	2.5
11	3.0	b2.0	b1.7		1.3	b1.3	1.4	3.6	13	8.7	4.5	3.2
12	3.0	b2.0	b1.7		1.3	b1.2	1.4	3.6	13	8.7	4.3	3.0
13	2.8	2.0			b1.3	b1.2	1.4	3.6	12	8.7	4.3	2.8
14	2.8	2.0			b1.3	b1.2	1.5	3.8	12	8.3	4.0	2.8
15	2.6	2.0			1.3	b1.2	1.4	4.0	12	8.3	4.0	3.0
16	2.6	1.9	(*)		1.3	*b1.2	1.5	4.5	11	7.9	4.0	3.0
17	2.6	*1.9		1.7	1.2	1.2	1.5	4.8	11	7.5	4.0	3.0
18	2.6	1.9		*1.7	1.3	b1.2	1.6	5.0	11	8.3	3.8	2.8
19	2.6	2.0		1.6	1.3	1.2	1.7	5.3	11	7.5	3.6	2.8
20	2.6	2.0		1.6	1.2	1.2	1.9	5.5	11	7.1	3.6	2.8
21	2.6	1.9		1.6	b1.2	1.2	2.2	5.8	11	7.1	3.4	3.0
22	2.8	1.9	a1.7	1.6	b1.2	1.2	2.6	6.4	11	7.1	3.4	3.0
23	2.8	1.9		1.6	*1.3	1.3	2.6	7.1	11	6.4	3.2	3.0
24	2.8	1.9			1.3	1.3	2.6	7.9	11	6.4	3.2	3.0
25	2.8	1.9			1.3	1.3	2.5	8.7	11	6.1	3.0	3.0
26	2.8	1.9			1.3	b1.3	2.6	8.7	11	5.8	2.6	2.8
27	2.8	1.9			b1.4	1.3	2.8	8.7	10	5.5	2.6	3.0
28	2.6	1.9			1.3	b1.3	2.8	9.2	10	5.3	2.3	3.0
29	2.6	1.9			-	b1.3	2.5	9.6	9.6	5.3	2.3	3.0
30	2.5	1.9			-	1.3	3.0	10	9.6	5.3	2.3	3.2
31	2.5	-			-	1.3	-	11	-	5.3	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	85.4	3.0	2.5	2.75	169
November	60.3	2.5	1.9	2.01	120
December	54.1	-	-	1.75	107
Calendar year 1949	2,190.1	32	-	6.00	4,340
January	48.2	-	-	1.55	96
February	35.7	-	-	1.28	71
March	39.2	1.3	1.2	1.26	78
April	55.6	3.0	1.3	1.85	110
May	168.2	11	2.8	5.43	334
June	357.2	15	9.6	11.9	708
July	236.6	9.2	5.3	7.63	469
August	118.2	5.0	2.2	3.81	234
September	82.1	3.2	2.0	2.74	163
Water year 1949-50	1,340.8	15	-	3.67	2,660

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

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 1950. Records prior to September 1932 are published 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 1949 to September 1950

Oct. 1.....	240.70	Feb. 1.....	239.85	June 1.....	239.40
Nov. 1.....	240.70	Mar. 1.....	239.40	30.....	239.60
Dec. 1.....	240.40	31.....	239.30	Aug. 1.....	239.75
Dec. 31.....	240.20	May 1.....	239.20	31.....	240.00

Whitewater River at Whitewater, Calif.

Location.--Water-stage recorder, lat. 33°56'50", long. 116°38'20", in NE¼ sec. 2, T. 3 S., R. 3 E., 1.6 miles north of Whitewater. Datum of gage, 1,610.98 feet above mean sea level, adjustment of 1934. Supplemental water-stage recorder and 8-foot Cipolletti weir on Whitewater Mutual Water Co.'s diversion just downstream; installed Feb. 24, 1950.

Drainage area.--57.4 square miles.

Records available.--October 1948 to September 1950.

Extremes.--Maximum discharge during year, 450 second-feet Sept. 6 (gage height, 8.08 feet); minimum daily, 2.3 second-feet Jan. 1.

1948-50: Maximum and minimum, those of 1950.

Maximum discharge known, 42,000 second-feet Mar. 2, 1938, by slope-area method at site 2.5 miles upstream (drainage area, 51.4 square miles).

Remarks.--Records fair. Records of daily discharge include water pumped from open sumps in ground-water seepage area surrounding station but do not include flow in infiltration pipe line which bypasses station. Separately shown are monthly and yearly figures of total water diverted about 15 miles upstream and carried out of this drainage basin to power plants on San Gorgonio River, and thence to an area north of Banning for irrigation. One small diversion for domestic use and one for irrigation use are located 2 and 3 miles upstream.

Cooperation.--Records of monthly discharge of infiltration pipe line furnished by Whitewater Mutual Water Co. Records of diversions out of basin to San Gorgonio power plants furnished by California Electric Power Co.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a7.5	7.3	5.1	2.3	5.3	5.3	8.1	6.3	6.1	4.2	6.8	6.1
2	a7.4	5.8	5.1	4.0	4.6	5.8	7.3	6.3	6.1	4.0	6.3	6.6
3	a7.3	5.3	4.9	2.8	4.6	6.6	6.5	6.3	5.8	3.4	5.6	5.8
4	a7.2	5.3	4.9	3.0	4.2	6.1	7.1	7.1	5.8	3.6	6.1	6.1
5	7.1	6.1	4.9	2.8	4.0	6.7	6.6	6.3	6.1	13	5.3	8.0
6	7.6	5.8	5.1	2.8	60	8.3	6.8	6.3	6.3	5.8	4.4	25
7	7.3	5.8	5.1	2.8	50	10	6.8	6.6	7.1	11	6.1	c10
8	7.6	6.1	4.2	3.2	20	11	7.9	6.8	6.8	11	6.1	c8
9	7.6	5.3	4.5	3.3	8.1	8.0	9.0	6.8	6.8	7.4	5.8	c7
10	6.8	30	4.5	3.0	7.3	7.6	7.9	7.1	6.3	5.1	5.8	c6
11	7.9	c5.0	4.5	3.2	7.3	7.6	9.2	6.8	6.1	4.6	7.3	6.6
12	7.6	4.2	4.2	3.2	5.3	8.1	9.5	6.8	6.6	4.6	5.8	6.3
13	7.1	3.9	4.6	3.0	5.8	7.9	9.8	6.6	6.3	4.6	4.9	6.3
14	7.1	5.1	5.1	3.0	4.9	7.3	9.2	6.6	6.3	5.1	5.8	6.3
15	7.1	5.6	5.6	3.0	4.4	7.1	8.7	6.1	6.1	5.1	5.8	5.8
16	7.1	5.8	5.6	3.0	4.2	6.7	7.9	6.1	6.3	6.7	5.8	6.3
17	7.1	4.9	5.6	3.2	4.0	6.1	7.3	6.1	6.1	6.3	5.3	4.2
18	7.1	4.4	23	3.2	4.0	5.6	6.8	6.1	5.6	6.3	5.6	7.1
19	7.9	5.1	45	3.0	5.0	5.3	7.1	6.3	6.1	6.6	6.3	6.1
20	6.8	4.0	13	3.0	5.6	5.0	6.0	6.3	5.6	6.6	3.8	5.6
21	7.6	4.4	5.0	3.0	4.6	5.3	6.3	5.8	5.3	6.3	6.6	5.3
22	6.8	4.2	3.5	3.2	5.3	5.3	5.6	6.3	5.6	6.1	6.1	5.6
23	7.1	4.0	3.6	3.4	5.6	5.6	5.3	6.8	5.6	5.6	5.8	5.6
24	7.6	4.0	4.2	3.8	5.3	6.3	6.6	7.1	5.8	6.3	5.6	6.0
25	6.8	4.0	3.0	4.4	5.3	22	6.8	6.8	5.1	7.7	6.1	5.6
26	7.3	4.0	4.0	3.7	5.8	6.7	7.6	6.8	5.3	9.0	9.7	5.6
27	7.3	4.4	3.6	4.4	5.6	7.3	7.1	6.3	4.9	8.4	7.1	5.6
28	7.3	4.2	3.4	4.3	5.6	15	7.9	6.3	4.9	8.4	6.3	5.6
29	7.3	4.4	3.0	5.6	-	19	7.1	6.6	4.6	7.3	7.3	5.6
30	7.3	4.9	3.0	4.6	-	9.2	6.0	6.1	4.4	6.1	6.8	5.6
31	6.8	-	3.2	5.0	-	8.7	-	6.1	-	7.1	6.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet: White Water River	Runoff in acre-feet: Infiltration pipe line	Runoff in acre-feet: Total
October	225.4	7.9	6.8	7.27	447	18	465
November	173.3	30	3.9	5.78	344	83	427
December	204.0	45	3.0	6.58	405	107	512
Calendar year 1949	2,635.4	45	2.4	7.22	5,230	-	-
January	106.2	5.6	2.3	3.43	211	107	318
February	261.7	60	4.0	9.35	519	97	616
March	252.5	22	5.0	8.15	501	107	608
April	221.8	9.8	5.3	7.39	440	104	544
May	200.7	7.1	5.8	6.47	398	104	502
June	175.8	7.1	4.4	5.86	349	99	448
July	203.3	13	3.4	6.56	403	102	505
August	188.9	9.7	3.8	6.09	375	33	408
September	205.3	25	4.2	6.84	407	64	471
Water year 1949-50	2,418.9	60	2.3	6.63	4,800	1,020	5,820

Peak discharge (base not yet determined).--Nov. 10 (2:15 p.m.) 225 sec.-ft.; Sept. 6 (2:20 p.m.) 450 sec.-ft.

a No gage-height record; discharge interpolated.

c Stage-discharge relation uncertain; discharge computed on basis of normal recession.

Tahquitz Creek near Palm Springs, Calif.

Location.--Water-stage recorder, lat. 33°47'40", long. 116°33'45", in SW¼ sec. 22, T. 4 S., R. 4 E., 1½ miles southwest of Palm Springs, Riverside County. Datum of gage is 764.5 feet above mean sea level (survey by Riverside County Flood Control and Water Conservation District).

Drainage area.--Indeterminate.

Records available.--October 1947 to September 1950.

Extremes.--Maximum discharge during year, 15 second-feet Feb. 7 (gage height, 1.76 feet); no flow during several months.
1947-50: Maximum discharge, 65 second-feet July 22, 1948 (gage height, 3.92 feet); no flow during several months of each year.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.1	0.3	0.7	2.4	3.6	2.8	0.6			
2		0	.1	.3	.7	2.4	4.0	2.8	.5			
3		0	.1	.4	.7	2.4	4.0	2.9	.4	e0.02		
4		0	.1	.3	.7	2.4	4.0	3.1	.3			
5		0	.1	.4	.7	2.5	4.1	2.9	.3			
6		0	.1	.4	2.3	2.7	4.1	2.8	.3			
7		0	.1	.4	12	2.8	4.0	2.5	.3			
8		0	.2	.5	6.5	2.8	3.9	2.4	.3			
9		0	.2	.7	4.2	2.8	4.2	2.2	.3			
10		0	.5	.5	3.4	2.8	4.1	2.0	.2	e.01		
11		0	.5	.4	3.3	2.7	3.9	1.8	.2			
12		0	.5	.4	2.8	2.6	3.7	1.8	.2			
13		0	.4	.4	2.4	2.4	3.8	1.8	.2			
14		0	.4	.4	2.1	2.5	3.7	1.7	.2	0		
15		0	.3	.4	2.0	2.4	3.6	1.6	.2	0		
16		0	.3	.4	2.0	2.4	3.5	1.6	.1	0		
17		0	.3	.4	2.0	2.4	3.4	1.6	d.1	0		
18		0	.3	.4	2.0	2.4	3.5	1.6	d.1	0		
19		0	.3	.5	2.1	2.4	3.5	1.4	d.1	0		
20		0	.8	.5	2.3	2.4	3.5	1.3	d.1	0		
21		0	.7	.5	2.3	2.5	3.6	1.1	d.1	0		
22		0	.5	.5	2.3	2.4	3.6	1.0	.1	0		
23		0	.5	.5	2.3	2.5	3.6	1.0	.1	0		
24		0	.5	.4	2.4	2.4	3.5	1.0	.1	0		
25		0	.4	.4	2.4	3.5	3.3	1.0	.1	0		
26		0	.4	.4	2.4	2.9	3.2	.9	.1	0		
27			.3	.5	2.5	3.1	3.2	.9	.1	0		
28		e.04	.3	.5	2.5	3.3	3.0	.8	.1	0		
29			.3	.6	-	3.3	2.9	.7	.1	0		
30		.1	.3	.9	-	3.0	2.8	.7	.1	0		
31		-	.3	.8	-	3.2	-	.7	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	.22	.1	0	.007	.4
December	10.2	.8	.1	.33	20
Calendar year 1949	661.36	16	0	1.81	1,310
January	14.4	.9	.3	.46	29
February	74.0	12	.7	2.64	147
March	82.7	3.5	2.4	2.67	164
April	106.8	4.2	2.8	3.63	216
May	52.4	3.1	.7	1.69	104
June	6.0	.6	.1	.20	12
July	.18	-	0	.006	.4
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1949-50	348.90	12	0	.96	693

d Doubtful gage-height record; discharge interpolated.
e Daily discharge less than 0.1 sec.-ft.

Palm Canyon Creek near Palm Springs, Calif.

Location.--Water-stage recorder, lat. 33°44'55", long. 116°32'15", in S½ sec. 11, T. 5 S., R. 4 E., three-quarters of a mile upstream from Murray Canyon Creek and 6 miles south of Palm Springs. Altitude of gage, about 700 feet.

Drainage area.--94.0 square miles.

Records available.--January 1930 to January 1942, October 1947 to September 1950.

Average discharge.--14 years (1930-41, 1947-50), 6.21 second-feet.

Extremes.--Maximum discharge during year, 16 second-feet Jan. 29 (gage height, 2.17 feet); no flow during several months.
1930-42, 1947-50: Maximum discharge, 3,850 second-feet Feb. 6, 1937 (gage height, 5.60 feet, datum then in use), from rating curve extended above 120 second-feet on basis of velocity-area studies; no flow for several months during most years.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	1.2	0.3	0.03					
2				0	1.1	.3	0					
3				0	1.0	.2	0					
4				0	.8	.1	0					
5				0	.6	.05	0					
6				0	6.1	.04	0					
7				0	12	.03	0					
8				0	6.3	.03	0					
9				0	3.3	.04	.5					
10				0	3.3	.02	.3					
11				0	8.1	.03	.2					
12				0	4.8	.02	.06					
13				0	3.3	.03	.05					
14				0	2.7	.02	.04					
15				0	2.2	.02	.02					
16				0	1.6	.01	.01					
17				0	1.4	.01	0					
18				0	1.0	0	0					
19				0	.8	0	0					
20				0	.7	0	0					
21				0	.6	0	0					
22				0	.5	0	0					
23				0	.4	0	0					
24				0	.4	0	0					
25				0	.4	2.0	0					
26				.01	.4	.7	0					
27				.02	.4	.4	0					
28				.03	.3	.3	0					
29				7.6	-	.2	0					
30				4.7	-	.1	0					
31				2.0	-	.06	-					

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 1949	419.71	7.8	0	1.15	833
January	14.36	7.6	0	.463	28
February	65.7	12	.3	2.35	130
March	5.01	2.0	0	.162	9.9
April	1.21	.5	0	.040	2.4
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 1949-50	86.28	12	0	.236	170

Peak discharge (base 100 sec.-ft).--No peak above base.

Andreas Creek near Palm Springs, Calif.

Location.--Water-stage recorder and 36-inch broad-crested weir, lat. 33°45'35", long. 116°32'55", in SE¼ sec. 3, T. 5 S., R. 4 E., at Indian Service diversion dam, 0.9 mile above mouth and 5.4 miles south of Palm Springs. Altitude of gage, 800 feet (from topographic map).

Drainage area.--8.78 square miles.

Records available.--October 1948 to September 1950.

Extremes.--Maximum discharge during year, 21 second-feet Feb. 6 (gage height, 2.22 feet); minimum daily, 0.3 second-foot on several days in August.
1948-50: Maximum discharge, that of Feb. 6, 1950; minimum, 0.2 second-foot on several days in August 1949.

Remarks.--Records good. One small diversion about 1 mile above station for domestic use.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	1.0	1.5	2.0	2.0	2.0	1.7	1.7	0.7	0.6	0.6	0.5
2	.7	1.0	1.6	2.0	2.0	2.0	1.8	1.8	.7	.7	.5	.5
3	.7	.9	1.6	2.2	2.0	1.8	1.7	1.8	.6	.6	.4	.5
4	.7	.8	1.5	2.1	1.8	1.7	1.8	2.1	.6	.6	.3	.6
5	.7	.8	1.5	2.1	1.6	1.8	2.0	1.8	.7	1.2	.3	.6
6	.7	.7	1.5	2.1	7.7	2.1	1.8	1.5	.7	1.0	.4	.8
7	.7	.7	1.6	2.0	8.8	2.0	2.0	1.4	.8	1.1	.4	.9
8	.9	.9	2.0	2.2	5.3	2.1	2.2	1.5	.8	1.1	.4	.9
9	1.0	1.0	2.0	2.8	4.3	2.1	4.3	1.4	.7	1.0	.4	.9
10	.9	3.0	2.1	2.2	3.9	2.0	3.2	1.3	.7	.8	.4	.8
11	.8	1.7	1.8	2.1	3.9	2.0	2.7	1.3	.7	.6	.3	.8
12	.7	1.3	1.8	2.5	3.6	2.0	2.0	1.2	.8	.6	.3	1.0
13	.7	1.2	1.8	2.2	3.4	2.0	1.9	1.2	.9	.5	.3	.9
14	.7	1.1	1.8	2.2	3.2	2.0	1.8	1.3	1.0	.5	.3	.9
15	.7	1.1	1.8	2.2	2.9	2.0	2.0	1.2	1.0	.5	.3	.9
16	.7	1.1	2.0	2.2	2.9	2.0	1.7	1.2	.9	.6	.3	1.0
17	.9	1.1	2.0	2.4	2.6	2.0	1.6	1.3	.9	.7	.3	1.0
18	.8	1.1	2.2	2.4	2.6	1.8	1.5	1.2	.8	.7	.3	1.0
19	1.3	1.1	4.0	2.4	2.6	1.6	1.4	1.1	.8	.7	.3	1.0
20	1.1	1.1	3.6	2.1	2.4	1.6	1.4	1.1	.8	.6	.3	1.0
21	1.0	1.1	2.9	2.1	2.1	1.6	1.3	1.0	.8	.6	.4	.9
22	1.4	1.1	2.6	2.0	2.1	1.6	1.4	1.1	.8	.6	.4	.9
23	1.3	1.2	2.5	1.8	2.1	1.7	1.5	1.3	.8	.6	a.4	.9
24	1.3	1.2	2.4	2.0	2.2	1.7	1.7	1.2	.8	.7	a.4	.8
25	1.2	1.2	2.2	1.8	2.0	4.0	1.6	1.2	.8	.6	a.4	.8
26	1.2	1.6	2.0	1.7	2.0	2.1	1.7	1.1	.7	.5	a.5	.7
27	1.2	1.7	2.0	1.7	2.0	2.0	1.6	1.0	.7	.5	a.5	.7
28	1.2	1.6	2.0	1.7	2.0	1.7	1.7	.9	.6	.4	.5	.7
29	1.1	1.5	2.0	4.9	-	1.6	1.6	.8	.5	.4	.5	.7
30	1.1	1.5	2.0	2.5	-	1.8	1.7	.7	.5	.5	.5	.7
31	1.1	-	2.0	2.1	-	1.7	-	.8	-	.5	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	29.2	1.4	0.7	0.94	58
November	36.4	3.0	.7	1.21	72
December	64.3	4.0	1.5	2.07	128
Calendar year 1949	600.1	-	-	1.64	1,190
January	68.7	4.9	1.7	2.22	136
February	86.0	8.8	1.6	3.07	171
March	60.1	4.0	1.6	1.94	119
April	56.3	4.3	1.3	1.88	112
May	39.5	2.1	.7	1.27	78
June	22.6	1.0	.5	.75	45
July	20.6	1.2	.4	.66	41
August	12.1	.6	.3	.39	24
September	24.3	1.0	.5	.81	48
Water year 1949-50	520.1	8.8	.3	1.42	1,030

a No gage-height record; discharge interpolated.

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 1950.

Average discharge.--20 years (1930-50), 60.9 second-feet.

Extremes.--Maximum discharge during year, 708 second-feet Feb. 7 (gage height, 3.14 feet); minimum daily, 0.4 second-foot Sept. 1-3.
1929-50: 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 between 9 and 11 second-feet, which are fair. Hesperia Water Co.'s canal diverts water about 2 miles above station for irrigation and domestic use. Minor regulation by Lake Arrowhead (drainage area, 6.62 square miles).

Rating table, water year 1949-50, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 10 to Dec. 11, Jan. 4-16, Feb. 6-12, Apr. 8-18, May 5-29, Aug. 16 to Sept. 23)

0.7	0.4	1.3	9.5	1.9	42	2.4	166
.8	1.0	1.5	11	2.0	57	2.6	258
.9	2.0	1.6	16	2.1	76	2.8	375
1.0	3.4	1.7	22	2.2	100	3.0	518
1.1	5.1	1.8	30	2.3	130		

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	1.0	2.9	10	18	19	23	7.5	1.8	1.5	1.3	0.4
2	.5	1.0	2.9	10	20	25	20	7.3	2.2	1.3	1.3	.4
3	.6	1.0	2.8	11	19	23	17	9.0	2.4	1.3	1.2	.4
4	.6	1.0	2.6	*7.8	18	22	14	11	2.6	1.2	1.2	.5
5	.6	1.3	2.5	11	19	20	12	10	2.5	1.2	1.1	.5
6	.6	1.7	2.2	b9.5	267	18	10	10	2.6	1.7	1.0	.6
7	.7	1.8	2.2	b9.6	500	16	10	9.5	2.6	1.8	1.0	.7
8	.7	1.6	2.6	11	54	14	12	8.5	2.6	1.8	1.0	.6
9	.7	1.4	3.7	20	112	13	42	7.3	2.5	1.8	1.0	.6
10	.7	17	3.7	13	86	11	34	6.2	2.4	1.8	1.0	.6
11	.7	46	3.5	14	88	10	32	3.7	2.2	1.6	1.0	.6
12	.7	19	3.5	*15	66	10	41	3.7	2.2	1.6	1.0	.7
13	.7	11	5.5	11	52	8.7	46	3.5	2.2	1.4	1.0	.7
14	.7	8.5	5.7	13	44	6.6	44	3.5	2.2	1.2	1.1	.7
15	.7	5.3	6.6	12	40	6.2	35	3.5	2.2	1.1	1.0	.7
16	.8	4.7	6.4	11	39	5.7	27	3.4	2.2	1.0	1.0	.8
17	.9	4.4	6.6	14	40	5.5	23	2.9	2.2	1.1	1.0	.9
18	1.0	4.0	8.4	14	36	5.3	20	2.8	2.2	1.1	.9	.9
19	1.0	3.5	262	17	35	4.7	17	2.8	2.1	1.1	.7	1.0
20	1.0	3.7	78	17	35	4.6	16	2.8	2.0	1.1	.6	1.0
21	1.0	3.5	33	18	34	4.6	14	2.8	1.9	1.2	.6	.9
22	1.0	3.1	25	24	30	4.6	13	2.6	1.9	1.2	.6	.9
23	1.0	3.1	20	33	29	4.6	10	2.8	1.8	1.2	.6	1.0
24	1.0	3.1	18	36	27	5.0	10	2.6	1.8	1.3	.6	.8
25	1.0	2.9	14	28	26	24	10	2.5	1.8	1.3	.6	.7
26	1.0	2.9	12	19	26	20	10	2.4	1.7	1.3	.6	.7
27	1.0	2.8	12	20	19	16	10	2.2	1.7	1.2	.6	.7
28	1.0	2.9	11	20	18	19	9.9	2.0	1.6	1.1	.5	.6
29	1.0	2.9	12	19	-	25	8.8	1.9	1.6	1.2	.5	.6
30	1.0	2.9	11	28	-	25	7.9	1.9	1.5	1.2	.5	.7
31	1.0	-	11	22	-	25	-	1.8	-	1.3	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	25.4	1.0	0.5	0.82	50
November	169.0	46	1.0	5.63	335
December	593.3	262	2.2	19.1	1,180
Calendar year 1949	8,340.3	262	.4	22.9	16,540
January	517.9	36	7.8	16.7	1,030
February	1,797	500	18	64.2	3,560
March	421.1	25	4.6	13.6	835
April	598.6	46	7.9	20.0	1,190
May	144.4	11	1.8	4.66	286
June	63.2	2.6	1.5	2.11	125
July	41.2	1.8	1.0	1.33	82
August	26.6	1.3	.5	.86	53
September	20.9	1.0	.4	.70	41
Water year 1949-50	4,418.6	500	.4	12.1	8,770

Peak discharge (base, 400 sec.-ft.).--Dec. 19 (9 a.m.) 496 sec.-ft.; Feb. 7 (8 a.m.) 708 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

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 1950. February 1899 to July 1906 and November 1930 to September 1936 at site 3 miles upstream.
Average discharge.--14 years (1936-50), 96.3 second-feet.
Extremes.--Maximum daily discharge during year, 53 second-feet Mar. 4, 5; minimum daily, 8 second-feet July 28.
1930-50: Maximum discharge, 70,600 second-feet Mar. 2, 1938 (gage height, 18.7 feet, present datum), by slope-area method; minimum daily, 8 second-feet July 16, 1949, July 28, 1950.
Remarks.--Records fair. Diversions above station principally for irrigation. Minor regulation by Lake Arrowhead.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	28	34	40	37	46	26	23	20	21	11	23
2	21	34	31	43	37	50	26	26	21	21	11	21
3	21	34	34	40	40	50	28	31	17	17	13	21
4	23	37	31	40	40	53	28	28	19	17	13	21
5	19	34	34	40	40	53	26	26	21	21	13	21
6	23	31	34	40	43	43	26	26	21	22	15	19
7	23	31	34	40	40	46	a27	28	22	21	17	13
8	28	26	34	43	40	43	a28	31	21	19	21	19
9	26	26	40	50	37	43	a29	26	21	21	19	19
10	34	31	37	46	40	40	a30	28	21	19	19	21
11	28	34	37	43	43	40	31	28	21	19	19	19
12	28	34	37	46	46	40	31	28	26	21	19	19
13	28	37	37	46	46	40	31	28	28	21	17	21
14	28	40	37	46	46	37	34	34	21	21	19	23
15	28	40	37	50	46	34	37	23	23	21	17	21
16	31	37	40	46	46	34	28	26	23	17	17	23
17	34	40	40	46	46	34	34	23	23	15	15	23
18	26	37	40	43	46	34	28	23	19	13	21	21
19	31	37	40	46	43	31	23	23	19	13	21	21
20	31	37	40	46	46	31	23	26	26	13	17	28
21	34	37	37	50	46	31	28	31	21	15	23	2e
22	31	34	43	43	50	31	23	23	22	13	26	2e
23	34	34	40	50	50	31	26	23	21	13	28	26
24	31	34	40	46	46	37	28	23	21	13	28	21
25	31	37	40	43	46	43	31	23	21	15	26	23
26	31	34	40	46	50	40	28	23	23	15	26	19
27	31	34	43	43	46	34	26	28	23	13	26	26
28	28	34	40	43	46	26	28	23	23	8.0	21	23
29	34	31	43	40	-	26	23	21	22	11	19	23
30	26	34	50	40	-	26	23	26	23	11	17	26
31	26	-	43	40	-	26	-	15	-	13	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	869	34	19	28.0	1,720
November	1,028	40	26	34.3	2,040
December	1,187	50	31	38.3	2,350
Calendar year 1949	11,237.0	64	8.0	30.8	22,270
January	1,364	50	40	44	2,710
February	1,228	50	37	43.9	2,440
March	1,173	53	26	37.8	2,330
April	838	37	23	27.9	1,660
May	794	34	15	25.6	1,570
June	653	28	17	21.8	1,300
July	513.0	22	8.0	16.5	1,020
August	597	28	11	19.3	1,180
September	660	28	13	22.0	1,310
Water year 1949-50	10,904.0	53	8.0	29.9	21,630

Peak discharge (base, 200 second-feet).--No peak above base.
e No gage-height record; discharge interpolated.

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 1950.
Average discharge.--20 years, 37.6 second-feet.
Extremes.--No flow during year.
1930-50: 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.--No flow since Mar. 23, 1947. Minor storage and many diversions above station.

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 1950.

Average discharge.--20 years, 31.8 second-feet.

Extremes.--Maximum discharge during year, 706 second-feet Dec. 19 (gage height, 4.17 feet); no flow during several months.
1930-50: Maximum discharge, 26,100 second-feet Mar. 2, 1938, by slope-area method; no flow during several months of each year.

Remarks.--Records fair. One small diversion above station for irrigation; water diverted from Lake Gregory above station for domestic use and fire protection. No regulation.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	3.8	5.4	5.9	2.5					
2			0	3.8	3.8	9.7	1.9					
3			0	5.0	3.8	5.4	1.3					
4			0	4.7	3.1	4.2	.8					
5			0	3.7	3.8	3.1	.4					
6			0	3.2	76	2.5	.2					
7			0	3.8	166	1.3	.2					
8			0	6.8	83	.7	5.3					
9			0	34	56	.4	46					
10			0	16	46	.3	18					
11			0	17	45	.3	12					
12			0	36	37	.1	7.3					
13			0	20	31	.1	6.4					
14			0	13	28	.1	5.9					
15			0	11	25	.1	4.2					
16			0	12	23	.1	5.0					
17			0	12	19	.1	4.2					
18			.1	12	13	.1	3.8					
19			322	12	10	0	2.5					
20			64	8.5	9.7	0	1.9					
21			30	8.5	9.1	0	1.3					
22			21	9.7	6.8	0	.5					
23			15	10	6.8	0	.4					
24			14	12	5.9	0	.3					
25			11	12	5.4	33	.1					
26			8.5	11	5.9	18	.1					
27			6.8	6.8	5.4	11	.1					
28			5.9	5.4	5.9	8.5	.1					
29			4.6	6.8	-	6.4	.1					
30			4.2	10	-	5.0	.1					
31			4.2	6.8	-	3.8	-					

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	511.3	322	0	16.5	1,010
Calendar year 1949	4,295.08	322	0	11.8	8,520
January	377.3	36	3.2	10.9	669
February	738.8	166	3.1	26.4	1,470
March	120.2	33	0	3.88	238
April	132.9	46	.1	4.43	264
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 1949-50	1,840.5	322	0	5.04	3,650

Peak discharge (base, 500 sec.-ft.).--Dec. 19 (4 a.m.) 706 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 1950.

Average discharge.--26 years (1923-37, 1938-50), 15.8 second-feet.

Extremes.--Maximum discharge during year, 48 second-feet Feb. 6 (gage height, 2.47 feet); minimum daily, 1.6 second-feet Sept. 27-29.
1923-50: Maximum discharge, 8,300 second-feet Mar. 2, 1938, by slope-area method; minimum, 1.2 second-feet Aug. 22, 1925.

Remarks.--Records good. No diversion above station. There is evidence of appreciable infiltration into the stream bed in the immediate vicinity of this station.

Cooperation.--Twenty-five discharge measurements furnished by Los Angeles County Flood Control District, through H. E. Hedger, chief engineer.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	2.5	3.0	4.3	4.7	8.4	6.4	9.0	4.7	3.0	2.5	2.0
2	3.0	2.5	3.3	4.3	4.7	8.4	6.4	9.0	4.7	3.0	2.5	2.0
3	3.0	2.8	3.3	4.3	4.7	8.4	8.4	8.4	4.7	2.8	2.5	2.2
4	3.0	2.8	3.3	4.3	4.7	8.4	6.4	8.4	4.7	2.8	2.5	2.2
5	3.0	2.8	3.7	4.3	4.7	7.3	6.4	7.8	4.7	2.8	2.5	2.2
6	3.0	2.8	3.7	4.3	31	7.3	6.0	7.8	4.7	3.3	2.5	2.5
7	3.3	2.8	4.0	4.3	24	7.3	6.0	7.3	4.7	3.0	2.5	2.5
8	3.3	3.0	4.0	5.5	12	7.3	7.8	6.8	4.7	3.0	2.5	2.2
9	3.3	3.0	4.0	5.5	10	7.3	7.8	6.8	4.3	3.0	2.5	2.2
10	3.0	3.3	4.0	6.0	9.5	7.3	6.8	6.8	4.3	3.0	2.5	2.2
11	2.8	3.0	4.0	5.5	9.0	7.3	6.8	6.4	4.3	3.0	2.5	2.2
12	2.8	3.0	4.0	5.5	9.0	6.8	6.8	6.4	4.3	2.8	2.2	2.2
13	2.8	3.0	4.0	5.5	7.8	6.8	7.3	6.8	4.3	2.5	2.2	2.2
14	2.8	2.8	3.7	5.1	7.3	6.8	8.4	6.8	4.0	2.5	2.2	2.2
15	3.0	2.8	3.7	5.1	7.3	6.8	7.8	6.8	4.0	2.5	2.2	2.2
16	3.0	2.5	3.7	5.1	7.3	6.8	7.8	6.8	4.0	2.5	2.2	2.2
17	3.0	2.5	4.0	5.5	7.8	6.8	7.8	6.8	4.0	2.5	2.0	2.2
18	3.7	2.5	6.0	5.5	7.3	6.8	7.8	6.4	3.7	2.5	2.0	2.2
19	3.7	2.8	6.8	5.5	7.3	6.4	8.4	6.4	3.7	2.5	2.0	2.2
20	3.7	2.8	6.0	5.1	7.8	6.4	9.0	6.0	3.7	2.5	2.0	2.2
21	3.7	2.8	4.7	5.1	8.4	6.0	9.0	6.0	3.7	2.5	2.0	2.0
22	3.7	2.8	4.7	5.1	8.4	6.0	8.4	6.0	3.7	2.2	2.0	2.0
23	3.3	2.8	4.7	5.5	8.4	6.0	8.4	6.0	3.7	2.2	2.0	1.8
24	3.3	2.8	4.7	5.5	8.4	6.8	8.4	6.0	3.3	2.5	2.0	1.8
25	3.3	2.8	4.7	5.5	8.4	7.8	7.8	6.0	3.3	2.8	2.0	1.8
26	3.0	2.8	4.3	5.5	8.4	7.3	7.8	6.0	3.0	2.8	2.0	1.8
27	3.0	2.8	4.3	5.5	8.4	6.8	7.8	5.5	3.0	2.5	2.0	1.6
28	2.8	2.8	4.3	5.1	8.4	6.8	7.8	5.1	3.0	2.5	2.0	1.6
29	2.5	2.8	4.3	4.7	-	6.8	8.4	5.1	3.0	2.5	2.0	1.6
30	2.5	2.8	4.3	4.7	-	6.8	8.4	5.1	3.0	2.5	2.0	1.8
31	2.5	-	4.3	4.7	-	6.8	-	4.7	-	2.5	2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	95.8	3.7	2.5	3.09	190
November	84.0	3.3	2.5	2.80	167
December	131.5	6.8	3.0	4.24	261
Calendar year 1949	2,130.8	24	2.5	5.84	4,230
January	157.4	6.0	4.3	5.08	312
February	255.1	31	4.7	9.11	506
March	219.0	8.4	6.0	7.06	434
April	226.5	9.0	6.0	7.55	449
May	205.2	9.0	4.7	6.62	407
June	118.9	4.7	3.0	3.96	236
July	83.0	3.3	2.2	2.68	165
August	68.5	2.5	2.0	2.21	136
September	62.0	2.5	1.6	2.07	123
Water year 1949-50	1,706.9	31	1.6	4.68	3,390

Peak discharge (base, 50 sec.-ft.).--No peak above base.

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, 2 miles upstream from Little Rock Palmdale Irrigation District's dam, 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 1950 (1937-38, 1938-39 incomplete).

Average discharge.--18 years (1930-37, 1939-50), 19.7 second-feet.

Extremes.--Maximum discharge during year, 212 second-feet Feb. 6 (gage height, 5.26 feet); no flow during several months.
1930-50: Maximum discharge, 17,000 second-feet (estimated) Mar. 2, 1938; no flow during periods in most years.

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

Cooperation.--Records furnished by Los Angeles County Flood Control District, through H. E. Hedger, chief engineer.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	1.2	3.2	4.2	5.6	5.0	4.4	1.0	0.1		
2		0	1.2	3.0	4.0	6.0	5.0	4.2	.8	.1		
3		0	1.2	2.8	3.6	6.3	4.7	4.4	.8	.1		
4		0	1.2	2.6	3.4	6.0	4.4	4.4	.8	.1		
5		0	1.2	2.6	3.4	6.0	4.2	4.2	.7	.1		
6		0	1.2	2.4	114	6.3	4.2	4.0	.7	.1		
7		0	1.3	2.4	82	6.0	4.0	3.8	.7	0		
8		0	1.9	4.2	39	5.6	6.1	3.6	.6	0		
9		0	4.8	5.8	25	5.6	11	3.4	.6	0		
10		0	3.6	3.4	22	5.6	8.7	3.2	.6	0		
11		0	2.6	3.4	24	5.6	8.7	3.2	.5	0		
12		0	2.0	3.4	19	5.6	11	2.6	.5	0		
13		0	1.8	3.0	15	5.6	14	2.6	.5	0		
14		0	1.4	2.8	12	5.6	19	2.2	.5	0		
15		0	1.3	2.6	10	5.8	15	1.9	.5	0		
16		0	1.3	2.6	9.6	5.6	13	1.8	.5	0		
17		0	1.3	2.6	8.7	5.6	13	1.6	.4	0		
18		.1	2.2	3.5	8.3	5.3	11	1.3	.4	0		
19		.1	19	5.6	7.9	5.3	11	1.4	.4	0		
20		.2	11	6.0	7.5	5.3	9.1	1.2	.4	0		
21		.3	6.6	6.9	7.2	5.0	8.3	1.0	.3	0		
22		.4	5.3	8.3	6.6	5.0	7.9	1.0	.2	0		
23		.5	4.7	9.1	6.3	5.0	7.2	1.0	.2	0		
24		.6	4.4	10	6.0	6.3	6.6	1.2	.2	0		
25		.6	4.2	8.7	5.6	11	6.3	1.2	.2	0		
26		.7	4.0	8.2	5.6	7.2	5.6	1.0	.2	0		
27		.8	3.8	5.6	5.6	6.6	5.3	1.2	.2	0		
28		.8	3.8	5.3	5.6	6.0	5.0	1.2	.2	0		
29		1.0	3.6	5.3	-	5.6	4.7	1.2	.2	0		
30		1.2	3.4	5.0	-	5.6	4.7	1.2	.2	0		
31		-	3.2	4.4	-	5.3	-	1.0	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	7.3	1.2	0	.24	14
December	109.7	19	1.2	3.54	218
Calendar year 1949	1,890.7	33	0	4.63	3,350
January	142.7	10	2.4	4.80	283
February	471.1	114	3.4	16.8	934
March	182.7	11	5.0	5.89	362
April	243.7	19	4.0	8.12	483
May	71.6	4.4	1.0	2.31	142
June	14.0	1.0	.2	.47	28
July	.6	.1	0	.02	1.2
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1949-50	1,243.4	114	0	3.41	2,470

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.

Records available.--June 1912 to September 1950. Records prior to September 1934 are published in Water-Supply Paper 765.

Extremes.--1912-50: Maximum elevation observed, 6,428.1 feet July 18, 1919; minimum observed, 6,410.1 feet Sept. 27, 30, 1950.

Remarks.--Reference point set by W. D. Johnson, topographer for I. C. Russell, at water surface on Negit Island on Nov. 5, 1883 (see p. 299, Part I, Eighth Annual Report, U. S. Geological Survey, 1886-87) was recovered on Sept. 30, 1950. Elevation determined as 6,410.4 feet, by water level to present gage.

Cooperation.--Gage-height record furnished by city of Los Angeles.

Elevation, in feet, above mean sea level, water year October 1949 to September 1950

Oct. 4	6,411.9	Feb. 7	6,411.5	June 19	6,411.1
12	6,411.8	14	6,411.5	26	6,411.0
21	6,411.6	21	6,411.5	July 6	6,411.0
26	6,411.6	28	6,411.5	11	6,411.0
31	6,411.6	Mar. 7	6,411.5	17	6,410.9
Nov. 8	6,411.6	14	6,411.5	19	6,410.9
14	6,411.6	16	6,411.4	24	6,410.8
23	6,411.6	21	6,411.5	Aug. 2	6,410.7
28	6,411.6	28	6,411.5	11	6,410.5
Dec. 6	6,411.6	Apr. 10	6,411.5	16	6,410.4
9	6,411.6	18	6,411.5	24	6,410.4
12	6,411.6	25	6,411.5	31	6,410.3
20	6,411.5	May 9	6,411.3	Sept. 6	6,410.3
30	6,411.5	17	6,411.3	9	6,410.3
Jan. 6	6,411.4	23	6,411.3	13	6,410.3
12	6,411.4	31	6,411.3	19	6,410.2
18	6,411.4	June 9	6,411.2	27	6,410.1
25	6,411.4	13	6,411.1	30	6,410.1
Feb. 6	6,411.5				

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 1950. Occasional readings prior to August 1928.

Extremes.--1928-50: Maximum elevation observed, 4,051.8 feet Mar. 13, 1928 (Indian Service); minimum observed, 3,999.0 feet Sept. 30, 1950.
An elevation of 4,078.0 feet, adjustment of 1912, was observed Sept. 27, 1908, by Geological Survey.

Remarks.--Elevation determined by spirit leveling.

Cooperation.--Records furnished by U. S. Navy Department.

Elevation, in feet, above mean sea level, water year October 1949 to September 1950

Oct. 27	4,002.4	May 8	4,001.1
Dec. 7	4,002.1	26	4,000.9
Jan. 5	4,001.8	June 30	4,000.6
Feb. 28	4,001.6	Sept. 30	3,999.0
Mar. 30	4,001.4		

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 1950 in reports of Geological Survey. March 1926 to September 1950 in files of Walker River Irrigation District.
Extremes.--Maximum contents during year, 20,070 acre-feet Apr. 8-13 (elevation, 6,450.70 feet); minimum, 1,690 acre-feet Oct. 9 (elevation, 6,431.95 feet).
1926-50: 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.
Revisions.--Revised figures of contents, in acre-feet, for August and September 1949, superseding those published in Water-Supply Paper 1150, are given herewith:

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	-	4,480	7	-	3,780	13	-	3,100	19	6,810	2,590	25	2,580	2,390
2	-	4,350	8	-	3,660	14	-	3,000	20	6,590	2,520	26	5,400	2,270
3	-	4,250	9	-	3,570	15	-	2,920	21	6,370	2,480	27	5,280	2,230
4	-	4,120	10	-	3,420	16	-	2,830	22	6,200	2,480	28	5,040	2,190
5	-	4,020	11	-	3,320	17	-	2,760	23	6,000	2,430	29	4,820	2,070
6	-	3,900	12	-	3,210	18	6,990	2,640	24	5,840	2,430	30	4,710	2,000
												31	4,610	-

Month	Change in contents (acre-feet)	Equivalent mean discharge (second-feet)
August 1949	-6,550	-107
September	-2,530	-42.5
Water year 1948-49	-1,740	-2.4

Contents, in acre-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,950	2,620	5,370	8,080	12,630	17,400	19,880	16,580	12,700	17,320	12,570	5,080
2	1,910	2,660	5,480	8,130	12,700	17,580	19,880	16,340	12,900	17,400	12,260	4,890
3	1,880	2,730	5,640	-	12,700	17,750	19,880	15,790	13,310	17,320	12,000	4,710
4	1,850	2,800	5,800	-	12,770	17,750	19,880	15,550	13,850	17,320	11,760	4,580
5	1,810	2,870	5,920	-	13,110	17,830	19,880	15,320	14,290	17,400	11,320	4,450
6	1,800	3,100	6,080	-	13,920	17,920	19,980	15,030	14,880	17,400	11,080	4,280
7	1,740	2,970	6,240	-	14,060	18,010	19,980	14,800	15,100	17,580	10,790	4,160
8	1,710	3,060	6,370	-	14,210	18,090	20,070	14,660	15,170	17,750	10,500	4,120
9	1,690	3,100	6,420	-	14,360	18,090	20,070	14,430	15,320	17,660	10,140	4,050
10	1,730	3,130	6,460	-	14,510	18,180	20,070	14,210	15,320	17,680	9,820	3,960
11	1,760	3,210	6,460	-	14,660	18,180	20,070	14,140	15,400	17,750	9,480	3,900
12	1,800	3,320	6,500	-	14,510	18,260	20,070	13,850	15,170	17,830	9,160	3,840
13	1,810	3,400	6,500	-	14,950	18,260	20,070	13,650	15,030	17,830	8,950	3,840
14	1,830	3,510	6,550	-	15,100	18,260	19,980	13,450	15,170	17,750	8,740	3,840
15	1,850	3,570	6,550	-	15,250	18,260	19,880	13,310	15,250	17,490	8,490	3,840
16	1,880	3,630	6,590	-	15,400	18,350	19,800	13,240	15,470	17,400	8,340	3,780
17	1,900	3,690	6,680	-	15,550	18,350	19,520	12,900	15,790	17,320	8,030	3,810
18	1,910	3,780	6,770	-	15,790	18,440	19,420	12,630	15,950	17,150	7,890	3,840
19	1,910	3,900	6,860	-	15,950	18,440	19,240	12,380	16,260	16,980	7,650	3,960
20	1,910	3,960	6,860	10,440	16,030	18,520	19,150	12,130	16,660	16,580	7,410	4,050
21	1,950	4,020	6,900	10,790	16,190	18,610	18,960	11,880	18,820	16,110	7,220	4,150
22	2,020	4,120	6,940	11,140	16,260	18,610	18,780	11,690	18,980	16,420	6,940	4,250
23	2,050	4,220	7,030	11,500	16,420	18,690	18,610	11,760	17,060	15,320	6,720	4,350
24	2,130	4,380	7,080	11,630	16,660	18,780	18,440	11,630	17,060	14,950	6,500	4,410
25	2,150	4,510	7,170	11,760	16,820	18,870	18,260	11,890	17,230	14,360	6,330	4,480
26	2,250	4,640	7,260	11,880	16,980	19,060	17,920	11,690	17,230	14,360	6,160	4,540
27	2,330	4,750	-	12,000	17,060	19,240	17,580	11,760	17,150	14,210	6,000	4,540
28	2,390	4,890	-	12,130	17,230	19,330	17,400	11,820	17,150	13,920	5,800	4,610
29	2,450	5,080	-	12,260	-	19,420	16,820	12,000	17,150	13,510	5,600	4,640
30	2,500	5,220	7,890	12,440	-	19,610	16,580	12,190	17,320	13,170	5,400	4,640
31	2,540	-	7,980	12,570	-	19,800	-	12,380	-	12,900	5,260	-

Monthly elevation and contents, water year October 1949 to September 1950

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	6,432.70	1,950	+670
Nov. 1	6,434.35	2,620	+2,760
Dec. 1	6,438.90	5,370	+2,710
Calendar year 1949	-	-	-1,400
Jan. 1	6,442.00	8,080	+4,550
Feb. 1	6,446.00	12,630	+4,770
Mar. 1	6,449.20	17,400	+2,480
Apr. 1	6,450.60	19,880	-3,300
May 1	6,448.68	16,580	-3,880
June 1	6,446.04	12,700	+4,620
July 1	6,449.17	17,320	-4,750
Aug. 1	6,445.94	12,570	-7,490
Sept. 1	6,438.50	5,080	-440
Oct. 1	6,437.90	4,640	-
Water year 1949-50	-	-	+2,690

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 1950. July 1911 to September 1914 at site 1½ miles upstream (gage heights only).

Average discharge.--27 years (1922-24, 1925-50), 125 second-feet.

Extremes.--Maximum discharge during year, 282 second-feet July 25 (gage height, 1.86 feet); minimum daily, 0.5 second-foot Dec. 31 to Feb. 17, Feb. 22 to Mar. 3.
1921-50: Maximum discharge, 1,240 second-feet Jan. 22, 1943; minimum daily, that of Dec. 31, 1949, to Feb. 17, 1950, Feb. 22 to Mar. 3, 1950.

Remarks.--Records excellent except those below 5 second-feet, which are good. Diversion for irrigation of meadow and pasture lands near Bridgeport. Flow regulated by Bridgeport Reservoir (see preceding page).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	9.7	10	0.5	0.5	0.5	49	192	246	192	200	119
2	53	9.7	10	.5	.5	.5	63	182	252	190	200	119
3	53	9.7	10	.5	.5	.5	64	163	244	190	197	117
4	45	9.7	10	.5	.5	18	75	150	229	190	197	117
5	41	9.7	10	.5	.5	27	84	150	229	187	194	115
6	41	9.7	10	.5	.5	28	84	139	232	192	194	113
7	36	9.7	10	.5	.5	28	84	126	235	192	194	113
8	29	9.7	11	.5	.5	28	84	115	235	190	194	109
9	29	9.2	11	.5	.5	28	84	115	235	192	194	99
10	29	9.2	11	.5	.5	28	84	113	235	192	194	99
11	29	9.2	11	.5	.5	28	84	119	238	190	192	93
12	28	9.2	11	.5	.5	28	86	134	234	192	180	71
13	28	9.2	11	.5	.5	31	86	145	207	192	161	53
14	28	9.2	11	.5	.5	37	89	130	194	194	161	53
15	28	9.2	11	.5	.5	37	107	134	159	187	156	53
16	28	9.2	10	.5	.5	37	119	162	159	141	145	53
17	28	9.2	9.2	.5	.5	37	124	194	166	139	145	53
18	28	9.2	8.0	.5	1.1	37	134	194	177	156	150	46
19	28	9.2	8.0	.5	1.6	37	134	192	184	172	154	36
20	19	9.2	8.0	.5	1.6	37	134	201	197	187	152	36
21	11	9.2	8.0	.5	1.0	36	134	216	200	218	152	31
22	9.7	9.2	8.0	.5	.5	36	145	216	200	226	152	18
23	9.7	9.7	8.0	.5	.5	36	156	216	207	249	147	18
24	9.7	9.7	8.0	.5	.5	36	156	213	221	246	132	18
25	9.7	9.7	8.0	.5	.5	36	156	215	221	255	119	16
26	9.7	9.7	8.0	.5	.5	36	161	221	221	267	119	21
27	9.7	10	8.0	.5	.5	36	177	238	221	224	119	27
28	9.7	10	8.0	.5	.5	36	194	238	221	202	119	27
29	9.7	10	8.0	.5	-	36	205	241	210	202	119	27
30	9.7	10	4.9	.5	-	36	205	241	192	202	119	27
31	9.7	-	.5	.5	-	36	-	241	-	202	119	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	789.0	53	9.7	25.5	1,560
November	285.2	10	9.2	9.51	566
December	278.6	11	.5	8.99	553
Calendar year 1949	31,611.9	297	.5	86.6	62,710
January	15.5	.5	.5	.50	31
February	17.3	1.6	.5	.62	34
March	928.5	37	.5	50.0	1,840
April	3,541	205	49	118	7,020
May	5,542	241	113	179	10,990
June	6,401	252	159	213	12,700
July	6,150	267	139	198	12,200
August	4,970	200	119	160	9,860
September	1,897	119	16	63.2	3,760
Water year 1949-50	30,815.1	267	.5	84.4	61,110

Note.--No gage-height record Dec. 31 to Feb. 9; discharge computed on basis of 1 discharge measurement and records of gate operation at Bridgeport Reservoir.

East Walker River above Strosnider ditch, near Mason, Nev.

Location.--Water-stage recorder, lat. 38°49', long. 119°03', in sec. 14, T. 11 N., R. 26 E., 0.9 mile upstream from head of Strosnider ditch, 12 miles southeast of Mason, and 13½ miles southeast of Yerington.

Records available.--January 1947 to September 1950.

Extremes.--Maximum discharge during year, 226 second-feet May 31 (gage height, 2.16 feet); minimum, 7.0 second-feet Mar. 7.
1947-50: Maximum discharge, 246 second-feet May 28, 1947 (gage height, 2.30 feet); minimum, 3.1 second-feet Mar. 21, 1948.

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions above and below station for irrigation. Flow regulated by Bridgeport Reservoir (capacity, 42,460 acre-feet).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	20	26	24	17	10	27	154	220	166	158	85
2	53	20	26	23	17	10	30	152	212	164	160	85
3	54	20	26	22	18	10	41	150	216	160	162	84
4	53	20	26	22	19	10	46	141	212	158	158	85
5	51	20	26	22	20	8.5	50	129	202	152	152	87
6	44	20	26	22	20	8.0	59	131	202	166	152	96
7	44	20	26	23	20	9.0	63	133	206	172	152	100
8	43	20	26	24	19	11	61	120	206	166	150	110
9	43	20	26	25	*18	16	68	112	206	162	142	108
10	44	20	26	24	17	18	66	108	206	162	139	103
11	42	19	25	23	17	20	70	105	212	190	141	103
12	43	20	25	22	18	22	70	103	214	180	144	101
13	31	22	26	22	16	21	76	113	210	180	133	90
14	42	28	26	23	16	23	76	128	202	168	119	76
15	43	29	26	21	16	26	78	124	188	160	115	70
16	40	29	25	23	15	27	90	120	164	156	112	66
17	39	29	24	26	15	25	103	135	164	129	106	63
18	39	29	26	30	15	21	108	158	160	113	108	64
19	39	29	26	30	15	21	117	162	164	112	110	64
20	39	28	24	24	13	21	117	160	166	120	110	53
21	37	28	23	21	14	22	113	168	172	131	110	48
22	36	28	24	20	14	22	113	182	172	137	110	46
23	33	*28	25	18	14	30	119	188	170	141	112	43
24	30	26	25	18	13	33	119	190	168	154	110	42
25	27	26	24	18	13	33	113	188	168	164	112	40
26	26	26	24	18	12	33	112	188	172	168	101	39
27	22	26	25	19	12	32	119	200	176	184	98	39
28	23	26	24	18	11	30	128	216	182	182	96	39
29	22	26	23	18	-	29	135	220	176	166	93	40
30	21	26	*23	18	-	29	146	220	172	164	92	40
31	21	-	29	18	-	27	-	222	-	158	90	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,195	61	21	38.5	2,370
November	728	29	19	24.3	1,440
December	782	29	23	25.2	1,550
Calendar year 1949	26,896	233	-	73.7	53,340
January	679	30	18	21.9	1,350
February	444	20	11	15.9	881
March	657.5	33	8.0	21.2	1,300
April	2,633	146	27	87.8	5,220
May	4,820	222	103	155	9,560
June	5,660	220	160	189	11,230
July	4,885	190	112	158	9,690
August	3,847	162	90	124	7,630
September	2,100	110	39	70.3	4,180
Water year 1949-50	28,439.5	222	8.0	77.9	56,400

Peak discharge (base, 500 sec.-ft.).--No peak above base.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 11-16, 20-28, Jan. 3-17, 25-27, Jan. 30 to Feb. 4.

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 1950.

Average discharge.--12 years (1938-50), 245 second-feet.

Extremes.--Maximum discharge during year, 1,960 second-feet June 1 (gage height, 5.19 feet); minimum, 12 second-feet Dec. 6.

1938-50: 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, 4.0 second-feet Nov. 18, 1948.

Maximum discharge known, 5,800 second-feet Dec. 11, 1937, by slope-area method.

Remarks.--Records good except those for periods of ice effect, 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 above station.

Revisions (water years).--W 880: 1917 (runoff in acre-feet).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	31	39	28	36	64	102	518	1,680	778	118	54
2	29	29	37	26	35	66	129	409	1,600	725	120	53
3	29	28	37	26	37	66	161	357	1,480	664	114	50
4	28	27	34	27	39	70	179	313	1,300	606	105	53
5	26	27	34	28	40	79	201	285	1,400	552	96	54
6	27	29	33	29	39	66	189	267	1,370	543	90	55
7	28	29	34	30	38	66	172	250	874	505	83	66
8	32	30	35	31	37	66	154	230	700	470	77	67
9	34	30	33	31	37	63	163	228	700	443	76	63
10	36	31	33	30	39	57	146	253	746	417	76	74
11	37	31	31	29	40	55	146	307	768	413	74	77
12	37	37	28	29	40	55	154	350	620	466	77	69
13	36	40	28	29	42	54	161	439	679	381	74	60
14	34	40	28	30	44	55	143	616	736	363	70	55
15	34	39	29	30	47	51	144	738	856	333	69	51
16	34	39	29	31	49	53	161	858	909	304	67	49
17	33	38	30	31	47	58	199	913	921	276	71	58
18	31	37	30	32	46	55	242	878	933	250	77	66
19	34	38	29	33	48	63	310	873	1,000	228	77	56
20	34	38	27	34	47	63	411	955	1,130	209	79	54
21	34	*37	26	35	46	63	511	1,080	1,200	201	74	49
22	34	37	27	37	47	73	565	1,160	1,090	196	73	47
23	34	38	27	38	49	64	552	1,120	1,030	191	69	44
24	34	40	28	38	55	67	539	960	812	184	67	42
25	34	42	28	37	59	66	565	1,080	659	177	66	39
26	33	43	28	37	66	66	611	1,240	649	174	66	38
27	33	43	29	38	*67	63	654	1,380	654	161	64	38
28	33	44	29	39	66	67	602	1,460	689	144	62	37
29	33	43	*29	39	-	73	522	1,370	757	131	59	34
30	31	43	30	*39	-	80	526	1,440	773	123	56	35
31	31	-	30	37	-	91	-	1,600	-	118	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,006	37	26	32.5	2,000
November	1,078	44	27	35.9	2,140
December	949	39	26	30.6	1,880
Calendar year 1949	69,660	1,290	20	191	138,180
January	1,008	39	26	32.5	2,000
February	1,282	67	35	45.8	2,540
March	1,998	91	51	64.5	3,960
April	9,314	654	102	310	18,470
May	23,927	1,600	228	772	47,460
June	28,715	1,680	620	957	56,960
July	10,726	778	118	346	21,280
August	2,401	120	55	77.5	4,760
September	1,587	77	34	52.9	3,150
Water year 1949-50	83,991	1,680	26	230	166,660

Peak discharge (base, 1,120 sec.-ft.).--June 1 (12:30 a.m.) 1,960 sec.-ft.; June 20 (11:30 p.m.) 1,430 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 9, 10, Dec. 9 to Feb. 13.

West Walker River near Hudson, Nev.

Location.--Water-stage recorder, lat. 38°49', long. 119°14', in SW¼ sec. 18, T. 11 N., R. 25 E., half a mile upstream from Wilson Canyon and 3 miles southeast of Hudson.

Records available.--May 1921 to March 1925, January 1947 to September 1950.

Extremes.--Maximum discharge during year, 502 second-feet June 2 (gage height, 2.47 feet); minimum not determined, occurred during period of ice effect.
1921-25, 1947-50: Maximum discharge, 2,530 second-feet June 7, 1922; minimum daily, 14 second-feet Sept. 27 to Oct. 3, 1924.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow somewhat regulated by storage in Poor Lake (capacity unknown), and by off-channel storage in Topaz Reservoir (capacity, 59,440 acre-feet). Many diversions above and some below station for irrigation.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	50	42	b33	b34	36	76	360	360	309	194	174
2	46	47	39	b33	b33	34	70	352	391	317	200	184
3	42	46	38	b33	b34	34	70	340	279	313	190	174
4	42	43	37	b33	36	34	63	313	268	306	197	165
5	45	42	37	b33	36	34	80	290	336	306	187	168
6	53	39	37	b33	37	35	138	272	360	309	184	159
7	51	37	36	b33	37	35	141	238	364	290	168	162
8	54	36	36	b34	37	35	138	221	325	283	168	171
9	50	37	36	b35	*b36	35	130	207	313	306	159	165
10	50	45	b35	b35	35	34	144	181	294	325	165	147
11	49	43	b34	b35	35	34	144	174	313	302	168	h144
12	53	39	b36	b34	35	b34	144	177	336	283	162	h133
13	51	39	b37	b34	35	35	150	181	317	275	138	h141
14	51	41	37	b35	34	*35	144	177	302	249	136	h133
15	54	41	33	b40	34	34	141	218	294	235	130	h119
16	53	41	33	b48	34	34	130	235	302	207	133	h106
17	56	41	35	49	34	34	144	298	306	197	124	h89
18	56	41	37	47	35	34	141	321	321	187	141	h94
19	54	43	35	43	34	34	153	333	298	204	141	h106
20	58	43	b34	39	34	34	153	340	298	224	141	h94
21	60	42	b34	37	35	34	181	340	283	232	156	h91
22	61	41	b35	36	35	35	214	340	302	210	162	h85
23	63	*41	b35	37	35	43	268	325	290	197	162	h76
24	53	41	35	37	35	47	287	336	275	187	177	h78
25	54	41	b34	b36	34	58	290	329	294	214	177	h74
26	54	39	b33	b34	34	58	329	321	313	249	162	h72
27	60	38	b33	33	34	58	356	325	302	246	177	h68
28	58	39	34	37	34	63	360	348	317	214	184	h74
29	56	42	b33	b35	-	74	348	340	279	174	171	h74
30	53	42	*33	b35	-	76	344	313	294	210	171	h87
31	51	-	b33	b34	-	76	-	309	-	214	177	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,644	63	42	53.0	3,260
November	1,240	50	36	41.3	2,460
December	1,096	42	33	35.4	2,170
Calendar year 1949	41,171	378	-	113	81,660
January	1,130	49	33	36.5	2,240
February	975	37	33	34.8	1,930
March	1,310	76	34	42.3	2,600
April	5,471	360	63	182	10,850
May	8,854	360	174	286	17,560
June	9,326	391	268	311	18,500
July	7,774	325	174	251	15,420
August	5,102	200	124	165	10,120
September	3,607	184	68	120	7,150
Water year 1949-50	47,529	391	33	130	94,260

Peak discharge (base, 500 sec.-ft.).--June 2 (2:30 a.m.) 502 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
h Discharge computed from readings based on recorder record of Walker River Irrigation District station half a mile downstream.

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 1950. April to August 1910 at site 1 mile upstream.

Extremes.--Maximum discharge during year, 283 second-feet May 31 (gage height, 1.96 feet); minimum, 8.4 second-feet Nov. 4, 5.
1910, 1944-50: Maximum discharge recorded, 660 second-feet Feb. 2, 1945 (gage height, 2.69 feet), from rating curve extended above 270 second-feet on basis of velocity-area study; minimum recorded, 4.9 second-feet Nov. 17, 1948, 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. Small diversions above station.

Cooperation.--Results of one discharge measurement furnished by Sierra Pacific Power Co.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	13	14	12	20	18	22	60	238	114	28	16
2	13	11	13	11	19	18	26	52	231	114	29	16
3	13	9.6	13	11	19	18	29	45	205	110	30	16
4	12	9.6	12	11	20	20	30	42	194	104	29	16
5	11	11	12	12	21	20	*31	33	212	97	27	16
6	11	10	12	12	16	19	28	31	201	93	26	16
7	11	12	12	12	19	18	24	28	157	84	25	21
8	12	13	12	12	18	16	24	27	134	79	24	20
9	13	13	12	13	17	16	26	26	125	77	24	18
10	14	13	12	13	14	15	26	28	128	73	24	20
11	14	12	11	12	15	14	27	31	117	71	25	19
12	14	13	11	12	14	13	29	42	110	70	26	18
13	14	15	11	12	15	13	28	50	114	64	26	17
14	14	15	11	12	15	14	24	70	117	61	24	16
15	14	15	11	12	15	15	24	84	136	52	24	16
16	14	15	11	13	16	16	27	98	136	48	23	16
17	13	14	12	14	16	16	32	105	139	48	21	20
18	12	14	12	14	16	15	38	100	142	45	21	23
19	14	14	12	15	16	17	46	102	151	42	21	20
20	14	14	12	16	16	16	57	114	170	40	21	18
21	14	*14	11	16	16	17	64	134	173	36	20	17
22	14	14	11	17	16	19	68	148	167	37	20	16
23	13	14	11	18	17	18	66	145	157	36	19	16
24	13	15	11	19	18	16	64	134	131	36	18	15
25	13	16	12	18	18	16	68	148	117	38	18	14
26	13	15	12	19	20	17	71	161	114	37	18	14
27	13	14	12	21	*20	18	75	187	114	34	18	14
28	13	14	12	22	20	21	72	197	114	29	17	14
29	13	14	*12	22	-	19	62	197	117	30	16	14
30	13	14	12	*22	-	21	62	201	117	29	16	14
31	13	-	12	21	-	21	-	223	-	28	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	405	14	11	13.1	803
November	400.2	16	9 6	13.3	794
December	366	14	11	11.8	726
Calendar year 1949	12,681.2	208	8	34.7	25,160
January	466	22	11	15.0	924
February	482	21	14	17.2	956
March	530	21	13	17.1	1,050
April	1,270	75	22	42.3	2,520
May	3,043	223	26	98.2	6,040
June	4,478	238	110	149	8,880
July	1,856	114	28	59.9	3,680
August	695	30	16	22.4	1,380
September	506	23	14	16.9	1,000
Water year 1949-50	14,497.2	238	9.6	39.7	28,750

Peak discharge (base, 200 sec.-ft.).--May 31 (9:30 p.m.) 283 sec.-ft.; June 20 (9:30 p.m.) 227 sec.-ft.

* Winter discharge measurement made on this day.

Note.--No gage-height record Apr. 28 to May 18; discharge computed on basis of records for nearby streams. Stage-discharge relation affected by ice Nov. 10-23, Dec. 2-7, Dec. 9 to Feb. 5, Feb. 7-9, 11-14, 17, 18, 21, 22, Mar. 6, 7, 9-16, 25, 26.

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 1950.

Extremes.--Maximum contents observed during year, 53,600 acre-feet July 3 (elevation, 5,002.41 feet); minimum, 4,270 acre-feet Oct. 21, 24 (elevation, 4,975.06 feet).
1931-50: Maximum contents observed, 60,240 acre-feet June 30, 1941 (elevation, 5,005.35 feet); minimum observed, 505 acre-feet Oct. 22-25, 1931 (elevation, 4,972.63 feet).

Remarks.--Topaz Reservoir, formerly known as Alkali Lake, was formed by the diversion of water from West Walker River through a feeder canal and the construction of an outlet tunnel through a low saddle in rim of lake. Storage began Jan. 30, 1922. Usable capacity, 59,440 acre-feet between elevations 4,972.3 feet (lowest practical elevation for diversion through tunnel, bottom of outlet tunnel at elevation 4,970 feet) and 5,005 feet (3 feet below top of levee). 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.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,900	4,300	-	-	-	-	-	21,460	34,820	53,370	40,380	23,190
2	4,880	4,320	-	-	-	19,620	-	21,030	36,630	53,510	39,630	22,630
3	4,860	4,390	6,740	9,460	14,970	19,690	24,010	20,660	38,480	53,600	38,960	21,940
4	4,830	4,500	-	-	-	-	-	20,310	40,490	53,570	38,230	21,420
5	4,740	4,580	-	-	-	-	-	19,910	42,040	53,490	37,510	20,880
6	4,570	4,640	6,970	9,600	-	19,890	-	19,550	43,170	53,260	36,860	20,340
7	4,460	4,640	7,130	-	15,960	-	-	19,370	44,240	53,110	36,350	19,820
8	4,470	4,710	-	-	-	-	24,150	19,220	44,590	52,910	35,840	19,470
9	4,440	-	7,240	10,030	-	-	-	19,030	44,880	52,580	35,480	19,130
10	4,600	5,070	-	-	16,400	20,750	24,210	18,870	45,090	52,120	34,690	18,850
11	4,350	5,080	-	-	-	21,050	24,210	18,750	-	51,850	34,160	18,620
12	4,300	5,130	7,240	-	-	-	24,180	18,680	45,530	51,630	33,650	18,380
13	4,290	-	-	10,530	16,880	21,300	-	18,630	45,530	51,480	33,200	18,200
14	4,330	-	7,560	-	-	-	24,080	18,800	45,760	51,260	32,840	18,030
15	4,320	-	-	-	-	-	23,730	19,220	46,330	50,980	32,410	17,880
16	4,360	-	-	-	-	-	23,580	19,700	46,810	50,720	31,990	17,730
17	4,570	-	-	11,770	17,470	-	23,310	20,220	47,340	50,390	31,560	17,620
18	4,300	5,520	8,120	-	-	22,120	23,050	20,780	47,940	50,000	31,150	17,530
19	-	-	-	-	-	-	22,760	21,170	48,500	49,510	30,730	17,480
20	4,300	-	-	12,370	17,950	22,470	22,630	21,630	49,330	48,840	30,240	17,420
21	4,270	5,810	-	-	-	-	22,580	22,270	50,310	48,170	29,800	17,380
22	4,300	-	-	-	-	-	22,630	23,040	51,350	47,560	29,230	17,330
23	4,350	-	8,230	-	-	-	-	24,090	52,180	-	28,690	17,300
24	4,270	-	8,230	13,610	18,530	23,220	22,700	25,090	52,780	46,390	28,100	17,230
25	4,300	6,150	-	-	-	-	22,520	25,710	52,910	45,720	27,350	17,170
26	4,330	-	8,470	-	-	-	22,360	26,540	52,910	44,950	26,900	17,080
27	4,330	-	-	-	19,020	23,120	22,180	27,580	52,980	44,200	26,280	16,920
28	4,330	6,250	-	-	19,150	-	22,010	-	52,950	43,430	25,670	16,770
29	4,290	-	-	-	-	23,630	21,850	30,340	53,040	42,650	25,040	16,600
30	4,320	6,260	8,960	14,610	-	-	21,580	31,640	53,180	41,820	24,400	16,270
31	4,300	-	9,200	14,710	-	23,730	-	33,200	-	41,110	23,770	-

Monthly elevation and contents, water year October 1949 to September 1950

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	4,975.58	5,080	-
Oct. 31	4,975.08	4,300	-780
Nov. 30	4,976.33	6,260	+1,960
Dec. 31	4,978.18	9,200	+2,940
Calendar year 1949...	-	-	-3,260
Jan. 31	4,981.58	14,710	+5,510
Feb. 28	4,984.26	19,150	+4,440
Mar. 31	4,986.97	23,730	+4,580
Apr. 30	4,985.70	21,580	-2,150
May 31	4,992.38	33,200	+11,620
June 30	5,002.22	53,180	+19,980
July 31	4,996.52	41,110	-12,070
Aug. 31	4,986.99	23,770	-17,340
Sept.30	4,982.53	16,270	-7,500
Water year 1949-50...	-	-	+11,190

East Fork Carson River above Soda Springs ranger station, near Markleeville, Calif.

Location.--Water-stage recorder, lat. 38°30', long. 119°41', in sec. 28, T. 8 N., R. 21 E., half a mile downstream from Murray Canyon Creek, 2 miles southwest of Soda Springs ranger station, and 14 miles southeast of Markleeville.

Drainage area.--30 square miles.

Records available.--September 1946 to September 1950.

Extremes.--Maximum discharge during year, 652 second-feet May 31 (gage height, 4.27 feet); minimum recorded, 4.6 second-feet Oct. 5, but may have been less during period of ice effect.
1946-50: Maximum discharge, that of May 31, 1950; minimum, 4.5 second-feet Sept. 25, 1949.

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

Rating table, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 19)

0.7	4.1	1.7	42	3.2	281
1.0	7.8	1.9	63	3.5	362
1.2	12	2.1	87	3.9	498
1.4	22	2.4	129		
1.5	27	2.8	198		

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	6.8	8.9	6.5	6.3	14	40	150	452	187	23	9.1
2	5.1	6.6	8.7	6.3	6.1	14	56	117	432	182	23	8.7
3	4.9	6.6	8.0	6.0	6.0	14	63	103	368	166	22	8.7
4	4.8	6.5	7.8	6.0	6.2	15	68	90	350	145	21	9.2
5	4.8	6.4	7.8	6.0	6.5	16	69	85	425	132	20	8.9
6	5.1	6.5	7.3	6.2	7.0	15	56	80	338	129	19	9.1
7	5.4	6.8	7.8	6.4	7.0	14	47	71	233	114	19	11
8	6.5	7.0	7.5	6.5	6.5	14	48	65	209	103	18	12
9	7.2	6.6	7.2	6.6	6.5	13	42	67	225	92	17	9.6
10	8.0	4.8	8.0	6.5	6.8	12	36	77	243	91	16	10
11	8.3	7.2	7.5	6.3	7.5	12	36	92	221	91	17	12
12	7.8	8.7	7.2	6.1	8.0	12	42	114	189	83	17	12
13	7.3	9.2	7.3	6.0	8.0	11	46	152	211	74	16	9.9
14	7.2	9.2	7.2	6.0	8.0	11	39	193	221	68	15	9.2
15	7.2	9.2	7.3	6.0	8.4	11	41	225	267	63	14	9.1
16	6.9	9.4	7.4	6.0	8.5	12	56	258	286	58	14	9.2
17	6.8	9.2	7.4	6.1	8.5	13	76	270	272	53	13	10
18	6.3	9.6	7.2	6.4	8.8	14	92	256	279	49	12	12
19	6.8	9.9	6.9	6.5	9.5	14	123	252	318	45	12	11
20	7.4	9.6	6.8	6.6	10	14	160	279	363	42	12	9.9
21	7.7	9.2	6.7	6.6	10	15	185	320	345	40	12	9.6
22	7.4	9.2	6.6	6.6	10	15	189	311	313	38	11	9.2
23	7.4	9.2	6.5	6.5	11	14	169	294	288	36	10	9.1
24	7.3	9.6	6.5	6.2	12	15	167	320	231	34	10	8.7
25	7.2	11	6.5	6.1	13	16	178	365	206	34	10	8.3
26	6.9	10	6.5	6.0	14	17	198	365	194	32	10	8.3
27	6.9	10	6.4	6.0	14	18	206	422	191	30	9.9	8.5
28	6.9	10	6.5	6.1	14	20	180	400	198	28	9.6	8.2
29	6.9	9.9	6.6	6.4	-	22	159	397	206	26	9.2	7.8
30	6.9	9.4	6.6	6.6	-	25	164	434	196	25	9.2	7.8
31	6.9	-	6.5	6.6	-	34	-	484	-	24	9.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	207.4	8.3	4.8	6.69	411
November	253.3	11	4.8	8.44	502
December	223.1	8.9	6.4	7.20	443
Calendar year 1949	18,528.0	348	-	50.8	36,740
January	194.7	6.6	6.0	6.28	386
February	248.1	14	6.0	8.86	492
March	476	34	11	15.4	944
April	3,031	206	36	101	6,010
May	7,108	484	65	229	14,100
June	8,270	452	189	276	16,400
July	2,314	187	24	74.6	4,590
August	450.0	23	9.1	14.5	893
September	286.1	12	7.8	9.54	567
Water year 1949-50	23,061.7	484	4.8	63.2	45,740

Peak discharge (base, 300 sec.-ft.).--May 31 (8 p.m.) 652 sec.-ft.; June 5 (8 p.m.) 613 sec.-ft.; June 10 (8:30 p.m.) 311 sec.-ft.; June 20 (7:30 p.m.) 533 sec.-ft.
Note.--Stage-discharge relation affected by ice Dec. 11, Dec. 20 to Jan. 9. No gage-height record Jan. 10 to Mar. 28; discharge computed on basis of weather records and records for nearby streams.

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.

Records available.--May 1939 to September 1950. 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.--23 years (1890-93, 1901-3, 1908-10, 1925-28, 1935-37, 1939-50), 399 second-feet.

Extremes.--Maximum discharge during year, 2,410 second-feet June 1 (gage height, 4.48 feet); minimum, 24 second-feet Dec. 11 or 12.

1890-93, 1900-06, 1908-10, 1917, 1924-29, 1935-37, 1939-50: 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 observed, 8 second-feet Dec. 4-10, 19-23, 1904.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. 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 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 8 to Dec. 12, Sept. 14-30)

0.6	29	1.4	178	3.0	950
.8	51	1.7	274	3.4	1,260
.9	66	2.0	390	3.8	1,620
1.0	83	2.3	529	4.2	2,060
1.2	125	2.7	752		

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	60	69	56	107	211	314	950	1,990	698	116	83
2	49	58	64	52	103	205	378	752	1,900	692	199	76
3	47	58	66	46	138	202	443	675	1,700	635	161	68
4	45	57	58	52	336	214	462	597	1,520	581	148	66
5	43	56	*64	50	337	254	452	550	1,620	534	140	64
6	44	56	62	52	349	227	452	519	1,700	514	135	57
7	46	58	58	54	227	205	439	480	1,230	490	125	62
8	56	60	62	56	*178	205	403	448	980	439	125	93
9	60	69	57	54	161	190	374	439	995	408	123	91
10	64	76	60	52	167	178	382	466	1,020	378	103	89
11	71	47	38	40	164	175	432	565	1,080	361	103	91
12	68	52	40	44	142	145	482	658	880	365	103	103
13	62	68	46	48	145	164	504	841	860	322	114	89
14	58	71	54	44	150	164	412	1,040	915	292	110	80
15	58	74	58	42	158	148	378	1,190	1,120	274	105	73
16	57	74	60	70	175	148	430	1,380	1,130	254	105	71
17	56	73	64	150	172	164	534	1,490	1,120	240	103	74
18	56	74	60	*320	167	161	597	1,380	1,080	224	93	81
19	56	76	56	b400	178	209	698	1,350	1,110	205	93	95
20	60	74	50	193	178	247	848	1,400	1,200	193	103	97
21	63	73	48	246	167	208	1,030	1,630	1,290	181	103	95
22	62	69	56	374	167	281	1,120	1,680	1,190	170	97	93
23	62	71	60	480	175	234	1,060	1,590	1,150	158	91	89
24	62	73	60	322	181	234	1,010	1,680	1,000	158	91	83
25	60	74	62	190	202	214	980	1,740	828	181	91	81
26	60	80	62	156	214	211	1,120	1,670	777	175	81	80
27	58	78	64	167	227	205	1,190	1,750	746	167	78	76
28	62	81	62	153	218	214	1,100	1,880	740	158	74	78
29	62	81	62	128	-	237	915	1,740	758	150	85	73
30	62	76	60	135	-	260	915	1,830	752	130	78	73
31	63	-	58	130	-	303	-	2,020	-	121	81	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,782	71	43	57.5	3,530
November	2,047	81	47	68.2	4,060
December	1,800	69	38	58.1	3,570
Calendar year 1949	99,513	1,760	38	273	197,400
January	4,356	480	40	141	8,640
February	5,283	349	103	189	10,480
March	6,417	303	145	207	12,730
April	19,854	1,190	314	662	39,380
May	36,380	2,020	439	1,174	72,160
June	34,581	1,990	740	1,146	68,190
July	9,848	698	121	318	19,530
August	3,357	199	74	108	6,660
September	2,424	103	57	80.8	4,810
Water year 1949-50	127,929	2,020	38	350	253,700

Peak discharge (base, 1,300 sec.-ft.).--Apr. 27 (2:30 a.m.) 1,330 sec.-ft.; May 17 (2 to 3 a.m.) 1,760 sec.-ft.; May 22 (1:30 a.m.) 2,020 sec.-ft.; May 28 (1 to 2 a.m.) 2,310 sec.-ft.; June 1 (1 a.m.) 2,410 sec.-ft.; June 6 (5 a.m.) 2,010 sec.-ft.; June 21 (7 to 8 a.m.) 1,430 sec.-ft.; Aug. 2 (3 p.m.) 2,240 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.-- No gage-height record Dec. 11 to Jan. 18 (stage-discharge relation affected by ice during most of period); discharge computed on basis of 1 discharge measurement, recorded range in stage, weather records, and records for nearby streams.

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, 2½ 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 1950.

Average discharge.--11 years, 376 second-feet.

Extremes.--Maximum discharge during year, 2,160 second-feet May 29 (gage height, 4.28 feet); minimum, 11 second-feet Sept. 1, 2.
1939-50: 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 except those for periods of ice effect, which are fair. Many diversions above station for irrigation. Flow slightly regulated by several small reservoirs on tributaries.

Rating table, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 10, Feb. 5, 6, June 5 to July 14, Sept. 1-30)

-0.1	11	0.7	57	2.2	488
0.0	14	.9	80	2.6	709
.1	18	1.1	112	3.0	995
.2	22	1.3	158	3.5	1,390
.3	27	1.5	217	3.9	1,760
.5	40	1.8	321	4.3	2,180

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	52	97	94	b210	254	321	1,100	2,070	442	31	11
2	17	54	89	78	b200	250	285	1,120	2,100	447	28	11
3	17	56	*89	62	b210	247	329	882	2,040	442	41	13
4	18	54	92	b80	260	243	383	824	1,820	387	24	13
5	19	53	88	78	591	260	399	690	1,640	375	21	13
6	20	52	86	74	*522	289	412	607	1,700	336	29	16
7	19	52	89	78	548	257	438	558	1,610	285	29	16
8	19	52	94	79	351	250	483	522	1,180	282	31	17
9	21	52	86	*79	289	247	596	451	1,000	268	32	14
10	22	78	82	78	271	234	618	403	972	240	37	14
11	21	116	54	45	268	214	647	425	1,020	202	32	19
12	24	97	56	b60	247	198	697	483	980	211	26	20
13	30	83	60	b65	234	192	678	532	845	189	24	24
14	32	84	65	58	234	211	596	782	838	146	24	19
15	31	94	83	50	234	195	493	1,090	1,060	118	20	20
16	26	88	90	76	243	180	456	1,260	1,370	94	17	23
17	25	89	95	b500	247	183	532	1,440	1,290	84	14	27
18	26	92	98	1,180	240	198	613	1,550	1,190	66	13	31
19	29	95	92	532	243	195	697	1,490	1,150	55	14	34
20	34	102	68	387	247	264	782	1,450	1,200	50	21	35
21	42	105	b65	340	243	264	980	1,520	1,270	42	21	34
22	52	102	b80	420	237	250	1,170	1,730	1,320	40	17	32
23	52	100	89	522	230	314	1,170	1,870	1,210	38	19	32
24	54	100	98	817	230	296	1,170	1,860	1,060	41	20	30
25	51	100	98	b420	234	329	1,080	1,880	868	49	19	30
26	47	98	b100	b300	240	325	1,100	1,940	684	54	19	28
27	47	102	b100	271	250	292	1,200	1,870	607	52	18	26
28	46	102	102	359	257	278	1,330	2,000	558	45	22	28
29	48	104	100	412	-	282	1,260	2,120	479	32	18	27
30	49	104	97	278	-	307	1,070	1,970	460	28	16	28
31	50	-	97	247	-	336	-	1,950	-	29	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,007	54	17	32.5	2,000
November	2,512	116	52	83.7	4,980
December	2,679	102	54	86.4	5,310
Calendar year 1949	94,637.0	2,390	8.3	259	187,700
January	8,119	1,180	45	262	16,100
February	7,810	591	200	279	15,490
March	7,834	336	180	253	15,540
April	21,985	1,330	285	733	43,610
May	38,369	2,120	403	1,238	76,100
June	35,591	2,100	460	1,186	70,590
July	5,169	447	28	167	10,250
August	710	41	13	22.9	1,410
September	685	35	11	22.8	1,360
Water year 1949-50	132,470	2,120	11	363	262,700

Peak discharge (base, 1,600 sec.-ft.).--May 29 (2 a.m.) 2,160 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

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 1950. April 1911 to December 1933 at site 8 miles upstream.

Average discharge.--39 years (1911-50), 356 second-feet.

Extremes.--Maximum daily discharge during year, 1,980 second-feet June 2, 3; no flow Oct. 1 to Nov. 11, July 21 to Sept. 30.
1911-50: 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	112	143	308	277	330	1,100	1,860	523		
2		0	114	143	264	277	322	1,100	1,980	490		
3		0	108	124	277	277	308	1,030	1,980	433		
4		0	108	118	277	277	326	885	1,930	397		
5		0	114	118	353	277	366	793	1,790	353		
6		0	112	128	634	290	375	655	1,680	335		
7		0	108	132	620	299	388	588	1,720	308		
8		0	108	143	555	290	411	523	1,600	299		
9		0	112	143	411	277	462	473	1,350	344		
10		0	112	145	366	272	523	433	1,220	344		
11		0	118	134	344	246	575	397	1,170	290		
12		55	99	128	330	237	588	388	1,150	241		
13		62	89	118	317	219	620	388	1,100	176		
14		62	95	163	304	219	627	523	1,060	139		
15		62	108	114	286	228	620	714	1,150	118		
16		62	112	145	277	214	588	970	1,300	99		
17		59	116	168	281	203	568	1,180	1,300	80		
18		55	122	970	286	196	542	1,400	1,200	67		
19		60	124	943	286	203	542	1,450	1,130	56		
20		62	139	555	290	207	620	1,400	1,100	18		
21		69	122	462	299	264	655	1,490	1,100	0		
22		70	108	411	299	264	706	1,590	1,100	0		
23		102	108	503	299	259	1,030	1,710	1,100	0		
24		100	122	669	290	304	1,100	1,840	1,040	0		
25		102	112	730	286	308	1,120	1,820	943	0		
26		104	120	433	286	326	1,030	1,840	861	0		
27		108	128	388	290	312	1,030	1,820	770	0		
28		112	128	375	286	281	1,100	1,770	690	0		
29		110	132	462	-	277	1,220	1,790	620	0		
30		108	128	433	-	277	1,250	1,890	555	0		
31		-	128	344	-	290	-	1,840	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0	0
November	1,524	112	0	50.8	3,020
December	3,566	139	89	115	7,070
Calendar year 1949	83,676	2,040	0	229	166,000
January	9,985	970	114	322	19,800
February	9,401	634	264	336	18,650
March	8,147	326	196	263	16,160
April	19,942	1,250	308	665	39,550
May	35,790	1,890	388	1,155	70,990
June	37,549	1,980	555	1,252	74,480
July	5,110	523	0	165	10,140
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1949-50	131,014	1,980	0	359	259,900

Silver King Creek near Coleville, Calif.

Location.--Water-stage recorder, lat. 38°31', long. 119°36', in sec. 30, T. 8 N., R. 22 E., a quarter of a mile downstream from Poison Valley, 2½ miles east of Soda Springs ranger station, and 6½ miles southwest of Coleville.

Drainage area.--30 square miles.

Records available.--September 1946 to September 1950.

Extremes.--Maximum discharge during year, 220 second-feet May 31 (gage height, 2.62 feet); minimum recorded, 3.8 second-feet Oct. 18, but may have been less during period of ice effect.

1946-50: Maximum discharge, that of May 31, 1950; minimum recorded, 2.5 second-feet Oct. 28, Nov. 8, 1948.

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

Rating table, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 15 to Nov. 9)

1.0	5.0	1.8	72
1.2	14	2.0	103
1.4	26	2.3	159
1.6	46	2.5	197

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	10	10	8.3	8.0	12	26	101	189	84	21	12
2	10	10	10	8.1	8.0	12	32	90	182	82	21	12
3	10	10	9.4	8.3	8.0	13	37	84	167	78	20	12
4	9.5	9.5	9.2	8.5	8.0	14	39	78	161	72	20	12
5	9.5	9.5	9.0	8.3	8.3	14	43	75	174	66	18	12
6	9.5	10	9.0	8.2	8.4	13	40	71	157	65	18	12
7	10	10	9.0	8.2	8.4	12	35	65	132	59	18	16
8	11	10	9.0	8.5	8.3	11	33	62	119	56	18	15
9	15	7.8	9.0	8.7	8.0	11	32	66	112	53	17	14
10	15	8.0	9.0	8.8	8.0	10	33	75	112	53	17	14
11	13	9.0	8.6	8.6	8.1	10	32	81	107	52	18	14
12	12	10	8.5	8.3	8.4	10	32	92	101	48	18	14
13	12	11	8.4	8.0	8.5	10	33	100	110	43	17	12
14	12	12	8.4	8.0	8.5	9.6	32	121	114	41	16	12
15	11	12	8.4	8.0	8.5	9.6	32	134	125	38	15	12
16	11	12	8.5	8.0	8.6	9.8	40	146	117	37	15	13
17	10	12	8.6	8.0	8.6	11	49	146	117	35	15	15
18	8.5	11	8.6	8.2	8.9	12	62	142	121	32	14	15
19	15	11	8.3	8.4	9.0	12	78	146	127	32	14	17
20	14	11	8.4	8.5	9.0	12	98	148	136	31	14	15
21	13	10	9.0	8.5	9.0	13	110	161	142	30	14	14
22	13	10	9.0	8.5	9.1	13	121	161	136	29	13	12
23	12	10	8.9	8.3	9.5	13	123	159	130	28	13	12
24	11	11	8.6	8.0	10	13	121	172	114	28	13	12
25	10	12	8.5	8.0	11	13	125	180	100	28	13	12
26	10	11	8.5	7.6	12	14	138	178	93	26	12	12
27	10	11	8.5	7.5	12	15	146	184	90	24	12	12
28	10	11	8.6	7.6	12	16	129	178	89	23	12	11
29	10	11	8.6	7.6	-	19	117	174	89	22	12	11
30	10	10	8.4	7.7	-	20	123	180	87	22	12	11
31	10	-	8.3	7.9	-	24	-	184	-	22	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	347.0	15	8.5	11.2	688
November	312.8	12	7.8	10.4	620
December	272.2	10	8.3	8.78	540
Calendar year 1949	11,666.9	176	-	32.0	23,150
January	253.1	8.8	7.5	8.16	502
February	252.1	12	8.0	9.00	500
March	401.0	24	9.6	12.9	795
April	2,091	146	26	69.7	4,150
May	3,934	184	62	127	7,800
June	3,750	189	87	125	7,440
July	1,339	84	22	43.2	2,660
August	482	21	12	15.5	956
September	389	17	11	13.0	772
Water year 1949-50	13,823.2	189	7.5	37.9	27,420

Peak discharge (base, 100 sec.-ft.).--Apr. 27 (6 p.m.) 186 sec.-ft.; May 31 (5 p.m.) 220 sec.-ft.; June 20 (8 p.m.) 159 sec.-ft.

Note.--Stage-discharge relation affected by ice Nov. 10 to Mar. 27 (no gage-height record Dec. 31 to Jan. 13, Jan. 30 to Mar. 27; discharge computed on basis of weather records and records for nearby streams).

Wolf Creek near Markleeville, Calif.

Location.--Water-stage recorder, lat. 38°32', long. 119°43', in sec. 24, T. 8 N., R. 20 E., three-quarters of a mile downstream from Bull Canyon Creek and 12 miles southwest of Markleeville.

Drainage area.--9.8 square miles.

Records available.--September 1946 to September 1950.

Extremes.--Maximum discharge during year, 224 second-feet May 31 (gage height, 3.95 feet); minimum, 0.6 second-foot Sept. 29.
1946-50: Maximum discharge, 224 second-feet May 26, 1948, May 31, 1950; maximum gage height, 3.95 feet May 31, 1950; minimum discharge, that of Sept. 29, 1950.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	5.2	5.4	4.5	4.5	11	16	63	184	80	15	6.3
2	5.0	4.7	5.4	4.4	4.0	11	18	50	182	78	14	6.1
3	5.0	4.7	5.2	4.1	4.0	11	21	44	162	72	14	6.3
4	4.3	4.5	5.0	4.0	4.2	13	24	39	153	64	13	6.3
5	4.5	4.3	4.7	4.0	4.5	13	27	37	174	60	13	6.1
6	4.7	4.5	4.5	4.1	4.9	12	25	35	145	62	12	6.1
7	5.6	4.7	4.7	4.2	4.9	11	24	32	105	56	12	8.2
8	5.9	5.0	4.7	4.4	4.6	11	23	31	97	50	11	7.1
9	7.1	5.2	4.3	4.5	4.5	9.8	21	31	100	45	11	7.1
10	9.0	6.0	5.0	4.4	5.0	9.5	20	35	107	44	10	8.4
11	7.9	5.0	4.4	4.2	5.6	9.0	20	41	95	44	8.7	7.9
12	7.3	6.3	5.2	4.0	5.9	8.4	22	52	86	41	9.0	7.3
13	6.8	7.1	4.7	4.0	5.6	8.0	23	68	86	41	9.2	7.1
14	6.3	7.3	4.7	4.0	5.9	7.9	22	99	94	40	9.0	6.8
15	6.1	7.1	4.7	4.0	6.1	7.9	22	100	115	38	9.0	6.6
16	5.9	6.8	4.7	4.1	6.3	8.0	25	122	113	36	8.7	6.8
17	5.2	6.6	5.0	4.2	6.3	8.4	27	123	116	33	8.4	8.2
18	4.5	6.8	5.0	4.5	6.6	8.9	32	119	118	31	8.2	7.6
19	5.4	6.8	4.5	4.5	7.1	9.0	39	122	133	28	8.2	7.6
20	5.9	6.8	4.5	4.7	7.1	9.0	51	128	141	27	7.6	7.3
21	5.4	6.6	4.5	4.9	7.3	9.0	64	141	140	25	7.3	7.1
22	5.4	6.3	4.5	5.0	7.3	9.8	69	135	129	23	7.1	7.1
23	5.4	6.6	4.7	4.9	7.9	9.2	66	143	119	21	7.3	6.8
24	5.4	6.8	4.7	4.6	8.7	9.6	64	148	99	20	7.3	6.5
25	5.2	7.1	4.5	4.4	9.5	10	69	149	87	19	7.1	6.1
26	5.4	6.6	4.5	4.4	11	10	80	152	82	18	7.3	5.9
27	5.4	6.8	4.7	4.4	11	10	84	169	80	17	6.8	5.9
28	5.4	6.8	4.7	4.5	11	10	74	167	82	16	6.8	5.6
29	5.4	6.3	4.7	4.7	-	11	68	165	85	15	6.3	5.7
30	5.4	6.1	4.7	4.9	-	13	68	174	84	15	6.3	5.4
31	5.2	-	4.5	5.0	-	15	-	186	-	15	6.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	176.4	9.0	4.3	5.69	350
November	181.4	7.3	4.3	6.05	360
December	147.0	5.4	4.3	4.74	292
Calendar year 1949	8,576.9	149	-	23.5	17,010
January	136.5	5.0	4.0	4.40	271
February	181.3	11	4.0	6.48	360
March	313.4	15	7.9	10.1	622
April	1,208	84	16	40.3	2,400
May	3,100	186	31	100	6,150
June	3,493	184	80	116	6,930
July	1,174	80	15	37.9	2,330
August	286.9	15	6.3	9.25	569
September	203.1	8.4	5.4	6.77	403
Water year 1949-50	10,601.0	186	4.0	29.0	21,040

Peak discharge (base, 150 sec.-ft.).--May 31 (4:30 p.m.) 224 sec.-ft.; June 20 (6:30 p.m.) 176 sec.-ft.

Note.--Stage-discharge relation affected by ice Nov. 10, Dec. 11, 17-22, Jan. 2 to Feb. 10. No gage-height record Mar. 11 to Apr. 16; discharge computed on basis of weather records and records for nearby streams.

Silver Creek below Pennsylvania Creek, near Markleeville, Calif.

Location.--Water-stage recorder, lat. 38°36' (corrected), long. 119°47', in sec. 28, T. 9 N., R. 20 E., a quarter of a mile downstream from Pennsylvania Creek and 6½ miles south of Markleeville.

Drainage area.--20 square miles.

Records available.-- December 1946 to September 1950.

Extremes.--Maximum discharge during year, 390 second-feet June 5; maximum gage height, 3.79 feet May 31, June 5; minimum discharge, 1.1 second-feet Nov. 10.
1946-50: Maximum discharge, 411 second-feet May 26, 1948 (gage height, 3.84 feet); minimum, that of Nov. 10, 1949.

Remarks.--Records good except those for periods of ice effect, which are fair. No diversion above station. Flow partly regulated by three small reservoirs (total capacity, about 1,700 acre-feet).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	2.7	4.5	4.1	6.8	17	37	113	281	107	11	20
2	2.4	2.7	4.3	b4	6.8	17	49	81	281	100	32	18
3	2.4	2.7	3.6	b4	6.8	18	54	67	244	90	50	17
4	2.3	2.7	3.8	4.1	10	21	52	60	233	77	48	15
5	2.3	2.5	3.7	4.1	8.9	22	47	57	272	71	41	9.2
6	2.4	2.7	3.6	4.1	8.0	18	39	52	210	67	30	5.3
7	2.6	2.8	4.0	4.1	7.5	17	33	48	148	60	8.9	6.2
8	2.8	2.9	3.2	4.3	7.3	17	30	44	137	57	8.0	6.2
9	3.4	2.5	3.1	4.3	7.3	15	27	46	141	49	7.7	7.0
10	4.1	1.4	3.2	b4	7.3	15	25	58	156	47	7.5	7.5
11	3.7	1.8	b3	b4	7.0	14	28	72	134	45	7.7	11
12	3.6	2.7	b3	4.5	6.8	14	33	93	119	42	14	5.7
13	3.6	3.2	3.8	b4.2	7.3	13	36	132	119	39	22	4.8
14	2.9	4.0	4.0	b4.1	7.5	13	30	174	134	35	21	4.5
15	2.8	4.5	4.0	b4	8.9	13	33	200	176	32	21	4.1
16	2.7	4.6	4.0	3.6	9.6	14	48	208	174	29	21	4.3
17	2.6	4.8	4.0	b4	8.9	14	64	208	171	26	20	5.7
18	2.4	5.2	b4	b4.5	9.6	13	78	194	171	24	20	5.3
19	2.6	5.3	b4	b6	11	17	104	200	187	22	27	5.0
20	2.7	5.2	b4	7.3	10	16	137	216	208	21	38	4.5
21	2.6	5.0	4.0	12	*10	16	170	244	202	20	37	4.0
22	2.6	5.0	*4.0	23	11	17	166	244	184	18	36	4.0
23	2.6	5.0	4.0	17	12	17	151	233	164	17	34	3.7
24	2.6	5.9	3.8	12	14	17	141	224	139	30	33	3.6
25	2.7	6.4	3.8	9.2	16	16	148	221	119	43	38	3.4
26	2.7	*5.7	3.8	8.6	18	15	171	210	111	42	21	3.4
27	2.8	6.2	3.8	8.0	19	15	171	238	107	40	20	3.2
28	2.8	6.4	4.3	8.3	17	16	141	230	111	39	26	3.2
29	2.8	5.7	4.3	7.5	-	18	125	236	117	35	31	3.1
30	2.8	5.2	4.3	7.3	-	25	128	241	111	13	23	3.1
31	2.7	-	4.1	7.0	-	31	-	268	-	12	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	86.4	4.1	2.3	2.79	171
November	123.4	6.4	1.4	4.11	245
December	119.0	4.5	3	3.84	236
Calendar year 1949	13,284.7	284	1.4	36.4	26,340
January	207.2	23	3.6	6.68	411
February	208.3	19	6.8	10.0	556
March	521	31	13	16.8	1,030
April	2,496	171	25	83.2	4,950
May	4,912	268	44	158	9,740
June	5,061	281	107	169	10,040
July	1,349	107	12	43.5	2,680
August	775.8	50	7.5	25.0	1,540
September	201.0	20	3.1	6.70	399
Water year 1949-50	16,132.1	281	1.4	44.2	32,000

Peak discharge (base, 190 sec.-ft.).--Apr. 21 (6 p.m.) 241 sec.-ft.; Apr. 26 (6:30 p.m.) 227 sec.-ft.; May 16 (6 p.m.) 307 sec.-ft.; May 21 (6 p.m.) 358 sec.-ft.; May 31 (5 p.m.) 382 sec.-ft.; June 5 (5:30 p.m.) 390 sec.-ft.; June 20 (5 p.m.) 264 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Markleeville Creek above Grover Hot Springs, near Markleeville, Calif.

Location.--Water-stage recorder, lat. 38°42', long. 119°51', in SE¼NE¼ sec. 23, T. 10 N., R. 19 E., half a mile upstream from Buck Creek, 4 miles upstream from mouth, and 4 miles west of Markleeville.

Drainage area.--14 miles.

Records available.--October 1946 to September 1950.

Extremes.--Maximum discharge during year, 338 second-feet May 27 (gage height, 5.03 feet); minimum, 0.2 second-foot Oct. 13-16.
1946-50: Maximum discharge, 399 second-feet May 26, 1948 (gage height, 5.17 feet); minimum, 0.2 second-foot Aug. 20, 23, Sept. 1-5, Oct. 13-16, 1949.

Remarks.--Records good except those for October and November and those for periods of ice effect, which are fair. No diversion above station.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.8	1.8	1.7	5.0	9.7	20	100	190	45	2.3	0.5
2	.7	1.0	1.7	1.6	4.8	9.2	26	72	182	43	2.0	.5
3	.6	.8	1.6	1.6	4.8	9.5	29	65	162	40	2.0	.6
4	.5	.9	1.6	1.6	12	11	28	59	155	36	1.9	.6
5	a.5	.8	1.6	1.5	9.5	12	27	57	172	33	1.6	.5
6	a.5	.7	1.5	1.5	9.2	11	26	53	139	30	1.5	.6
7	.5	.7	1.5	1.6	8.4	9.5	24	50	102	28	1.4	.8
8	.4	1.0	1.5	1.6	8.2	9.2	22	45	89	26	1.3	.7
9	.4	1.4	1.5	1.6	7.2	8.7	20	48	93	23	1.1	.7
10	.5	1.6	1.3	1.6	7.2	8.2	18	56	102	24	1.1	.7
11	.4	1.5	1.1	1.6	6.7	7.9	18	70	94	23	1.0	.8
12	.3	1.5	1.1	1.7	6.5	7.7	21	90	74	21	1.0	.8
13	.2	1.4	1.3	1.7	6.3	7.9	24	119	81	19	1.0	.8
14	.2	1.4	1.5	1.6	6.5	7.9	21	147	88	18	.9	.7
15	.2	1.8	1.5	1.6	7.0	7.7	22	174	124	15	.8	.6
16	.4	1.7	1.5	2.2	7.4	7.9	28	178	108	14	.8	.7
17	.4	1.6	1.6	b3.0	7.2	8.7	36	169	102	13	.8	1.0
18	.5	1.6	1.6	b4.0	7.4	8.4	41	166	96	12	.7	.7
19	.6	1.8	1.6	b4.5	7.9	13	48	168	100	10	.7	.7
20	.8	1.8	1.6	5.0	7.7	12	76	175	107	8.7	.6	.7
21	.7	1.7	1.6	8.4	7.2	12	105	206	108	8.2	.6	.7
22	.8	1.7	1.6	15	7.2	14	109	206	89	7.4	.6	.6
23	1.1	1.9	1.7	18	7.9	12	112	215	87	7.0	.6	.6
24	1.5	1.9	1.7	12	*8.2	12	134	221	65	6.5	.6	.5
25	1.3	2.0	1.7	9.5	9.2	10	135	210	55	6.1	.6	.5
26	.8	2.0	1.7	8.4	10	9.7	138	197	52	5.6	.7	.5
27	.9	2.2	*1.7	7.9	11	9.7	150	225	50	5.0	.6	.7
28	.9	2.6	1.7	6.3	9.7	9.7	127	207	50	4.1	.6	.7
29	.9	2.1	1.8	5.2	-	11	112	202	50	3.6	.6	.7
30	.7	2.0	1.7	5.0	-	13	115	211	48	2.9	.5	.7
31	.8	-	1.7	5.2	-	16	-	221	-	2.4	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	19.6	1.5	0.2	0.63	39
November	45.9	2.6	.7	1.53	91
December	48.6	1.8	1.1	1.57	96
Calendar year 1949	7,927.0	252	.2	21.7	15,720
January	143.7	18	1.5	4.64	285
February	217.3	12	4.8	7.76	431
March	316.2	16	7.7	10.2	627
April	1,812	150	18	60.4	3,590
May	4,382	225	45	141	8,690
June	3,014	190	48	100	5,980
July	540.5	45	2.4	17.4	1,070
August	31.1	2.3	.5	1.00	62
September	19.9	1.0	.5	.66	39
Water year 1949-50	10,590.8	225	.2	29.0	21,000

Peak discharge (base, 175 sec.-ft.).--May 27 (6:15 p.m.) 338 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of recorded range in stage.
b Stage-discharge relation affected by ice.

Pleasant Valley Creek above Raymond Canyon Creek, near Markleeville, Calif.

Location.--Water-stage recorder, lat. 38°39', long. 119°50', in SE¼ sec. 12, T. 9 N., R. 19 E., 1¼ miles upstream from Raymond Canyon Creek, 4½ miles above mouth, and 5 miles southwest of Markleeville.
Drainage area.--16 square miles.
Records available.--October 1946 to November 1950 (gage destroyed by flood).
Extremes.--1949-50: Maximum discharge during water year, 475 second-feet May 27 (gage height, 3.51 feet); minimum, 0.5 second-foot Oct. 18, Nov. 9, Dec. 10.
1950: Maximum discharge during October and November, 2,500 second-feet Nov. 20 (by slope-area measurement 1½ miles downstream); minimum, 0.7 second-foot Oct. 21.
1946-50: Maximum discharge, that of Nov. 20, 1950; minimum, 0.3 second-foot Sept. 13, 14, 1947.
Remarks.--Records good except those for periods of ice effect or no gage-height record, and those above 600 second-feet, which are poor. Flow partly regulated by four small reservoirs (total capacity, about 850 acre-feet).

Discharge, in second-feet, 1949-50

1949-50

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	0.8	1.6	1.2	5.0	9	30	150	287	74	4.8	13
2	.7	.7	1.5	1.2	b5	8.5	38	100	267	67	4.8	5.2
3	.7	.7	1.4	1.2	4.8	9	44	76	236	59	5.0	2.2
4	.7	.7	1.3	1.2	9.6	10	43	64	224	52	3.7	1.4
5	.7	.7	1.3	1.2	7.8	11	41	62	255	46	3.1	1.0
6	.7	.7	1.2	1.2	7.2	10	39	59	196	42	13	6.6
7	.8	.8	1.2	1.2	6.1	9	36	53	130	38	36	13
8	.9	.9	1.2	1.2	5.5	9	33	49	119	36	35	21
9	1.0	.8	1.0	1.2	5.2	9	29	53	133	30	23	19
10	1.2	.8	1.0	1.2	5.2	8.5	27	72	150	31	14	17
11	1.0	.8	b1	1.2	5.0	8	26	107	136	29	13	13
12	.8	1.0	1.0	1.2	5.0	8	29	147	102	24	12	3.5
13	.8	1.4	1.1	1.2	5.0	8	34	196	122	21	10	1.9
14	.8	1.5	1.1	1.2	5.0	8	29	224	130	18	9.2	1.4
15	.8	1.5	1.0	1.1	5.5	8	30	251	175	16	8.5	1.2
16	.7	1.5	1.0	1.1	5.8	9	40	275	153	15	7.2	1.2
17	.7	1.4	1.0	2.3	5.8	9	62	255	141	13	6.1	1.6
18	.6	1.6	1.0	4.8	6.1	11	74	224	138	12	6.9	1.9
19	.7	1.6	1.0	3.9	6.6	14	100	232	147	10	8.1	1.5
20	.8	1.5	1.0	3.5	6.9	13	141	267	160	9.6	4.2	1.4
21	.8	1.4	1.0	7.2	6.9	13	179	283	150	8.1	2.5	1.2
22	.8	1.4	1.1	13	*7.2	15	192	283	122	6.9	2.1	1.0
23	.8	1.6	1.2	12	8	14	182	275	117	6.4	2.1	1.0
24	.8	1.8	1.2	9.6	8	13	175	304	87	6.1	2.1	.9
25	.8	1.9	1.2	8.9	8.5	12	172	287	74	5.0	2.1	.8
26	.8	*1.7	1.2	8.9	9	12	203	271	69	4.8	1.8	.9
27	.8	1.8	*1.2	7.8	10	13	206	304	72	4.6	1.8	1.0
28	.8	2.1	1.2	7.5	9	15	186	283	85	4.4	1.6	1.0
29	.8	1.8	1.2	5.2	-	17	156	292	83	4.4	1.7	.9
30	.8	1.8	1.2	5.0	-	21	160	304	78	4.6	7.3	.9
31	.8	-	1.2	5.0	-	24	-	326	-	4.2	18	-

Peak discharge (base, 275 sec.-ft.).--May 16 (8 p.m.) 358 sec.-ft.; May 24 (8:30 p.m.) 455 sec.-ft.; May 27 (7 p.m.) 475 sec.-ft.; May 31 (6:30 p.m.) 470 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Feb. 23 to Apr. 6; discharge computed on basis of recorded range in stage and records for Markleeville Creek near Markleeville.

1950

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1	0.9	10	9	0.8	8.5	17	0.8	12	25	3.2	-
2	1.0	14	10	.8	6.6	18	.8	685	26	6.9	-
3	.9	22	11	.8	6.1	19	.8	347	27	6.9	-
4	.8	18	12	.8	5.5	20	.8	-	28	5.5	-
5	.9	15	13	.8	5.2	21	.7	-	29	6.1	-
6	1.0	12	14	.8	4.2	22	.8	-	30	14	-
7	.9	10	15	.8	5.0	23	1.2	-	31	10	-
8	.8	10	16	.8	5.2	24	2.7	-			

Peak discharge (base, 275 sec.-ft.).--Nov. 20 (time and stage unknown) 2,500 sec.-ft.

Monthly discharge, in second-feet, 1949-50

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1949	24.6	1.2	0.6	0.79	49
November	38.7	2.1	.7	1.29	77
December	35.8	1.6	1.0	1.15	71
Calendar year 1949	11,004.1	269	.5	30.1	21,820
January 1950	123.6	13	1.1	3.99	245
February	184.7	10	4.8	6.60	366
March	358.0	24	8	11.5	710
April	2,736	206	26	91.2	5,430
May	6,128	326	49	198	12,150
June	4,338	287	69	145	8,600
July	702.1	74	4.2	22.6	1,390
August	270.7	36	1.6	8.73	537
September	137.6	21	.8	4.59	273
Water year 1949-50	15,077.8	326	.6	41.3	29,900
October 1950	74.8	14	.7	2.41	148
November 1-19	1,201.3	685	4.2	63.2	2,380

West Fork Carson River above Woodfords, Calif.

Location.--Water-stage recorder, lat. 38°47', long. 119°54', in sec. 31, T. 11 N., R. 19 E., 1 mile above Horsethief Canyon Creek and 4 miles west of Woodfords.

Drainage area.--53 square miles.

Records available.--December 1946 to September 1950.

Extremes.--Maximum discharge during year, 701 second-feet May 15 (gage height, 5.06 feet); minimum, 3.8 second-feet Nov. 9.
1946-50: Maximum discharge, 793 second-feet Apr. 24, 1949 (gage height, 5.39 feet); minimum, 2.5 second-feet Dec. 3, 1948.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow slightly regulated by several small reservoirs (total capacity, about 1,500 acre-feet).

Rating table, water year 1949-50, except periods of ice effect
(gage height in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 7 to Mar.31)

0.9	6.3	1.7	42	3.0	193
1.0	8.7	2.0	67	3.5	280
1.2	15	2.3	99	4.0	390
1.4	23	2.6	135	4.6	550

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	11	14	11	25	33	71	330	480	152	56	30
2	9.0	10	14	10	25	33	95	254	435	148	54	28
3	8.7	10	13	12	26	32	118	229	383	135	55	25
4	8.5	10	13	12	32	36	131	204	341	122	55	16
5	8.5	10	12	12	30	34	146	209	366	111	51	12
6	8.7	10	12	12	28	46	139	196	348	104	42	11
7	10	10	12	11	26	47	107	176	267	98	22	12
8	11	11	12	11	25	39	101	166	216	89	28	14
9	12	8.7	11	12	24	38	94	184	211	84	28	12
10	12	9.5	10	12	23	36	79	229	221	85	28	12
11	12	14	11	11	23	30	77	276	238	76	26	13
12	11	15	11	14	22	30	88	315	193	74	21	21
13	11	15	11	14	22	30	102	380	192	65	23	29
14	10	16	12	13	22	30	90	474	195	60	39	28
15	10	16	12	13	22	33	94	527	267	56	56	27
16	9.8	15	12	14	22	32	125	541	247	51	57	27
17	9.5	14	8.0	24	22	31	166	521	241	47	56	27
18	9.8	15	8.2	22	22	34	204	485	238	43	52	22
19	12	14	8.7	24	23	40	247	471	247	38	45	18
20	12	14	11	27	23	49	328	474	267	36	34	17
21	12	14	12	30	22	53	402	530	284	33	18	16
22	12	14	*13	39	24	56	438	538	248	32	15	16
23	12	14	12	43	24	53	438	538	240	36	22	15
24	11	15	12	31	*25	46	418	533	203	36	24	14
25	11	15	12	28	26	47	438	521	170	34	26	14
26	11	*15	12	27	28	44	513	480	164	33	24	27
27	11	16	12	29	30	41	550	499	157	30	22	32
28	11	20	12	28	32	41	453	496	156	27	33	30
29	11	17	12	27	-	43	395	453	162	26	40	19
30	11	16	11	26	-	48	412	456	162	26	35	15
31	11	-	11	26	-	58	-	499	-	48	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	328.5	12	8.5	10.6	652
November	404.2	20	8.7	13.5	802
December	358.9	14	8.0	11.6	712
Calendar year 1949	23,497.2	638	6.6	64.4	46,600
January	625	43	10	20.2	1,240
February	698	32	22	24.9	1,380
March	1,243	58	30	40.1	2,470
April	7,059	550	71	235	14,000
May	12,184	541	166	393	24,170
June	7,539	480	156	251	14,950
July	2,035	152	26	65.6	4,040
August	1,119	57	15	36.1	2,220
September	599	32	11	20.0	1,190
Water year 1949-50	34,192.6	550	8.0	93.7	67,830

Peak discharge (base, 450 sec.-ft.).--Apr. 27 (6 p.m.) 698 sec.-ft.; May 15 (9 p.m.) 701 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 9-16; Jan. 17 to Feb. 6; Feb. 8, 9, 12; Mar. 12, 13.

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 3¾ miles downstream from Willow Creek.

Drainage area.--66 square miles.

Records available.--October 1900 to May 1907, 1910-11 (fragmentary), October 1938 to September 1950. 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.--27 years (1901-3, 1905-15, 1916-20, 1939-50), 124 second-feet.

Extremes.--Maximum discharge during year, 747 second-feet May 16 (gage height, 4.77 feet); minimum, 9.4 second-feet Dec. 9.

1900-20, 1938-50: Maximum discharge, 1,570 second-feet May 9, 10, 1906 (gage height, 6.8 feet, datum then in use); minimum 1900-7, 1938-50), 8.4 second-feet Nov. 21, 1948.

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 except those for periods of ice effect, which are fair. One small diversion above station for irrigation. Flow slightly regulated by several small reservoirs (total capacity, about 1,500 acre-feet).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	16	20	16	b32	39	*77	387	532	172	66	37
2	14	16	18	16	b32	*40	99	295	482	167	65	35
3	14	16	17	b17	34	41	125	263	429	153	65	35
4	14	16	17	b17	40	45	138	238	387	141	67	24
5	14	16	*17	b17	35	46	149	239	406	129	63	21
6	14	16	18	17	33	46	147	232	396	121	54	19
7	15	16	18	16	30	48	115	207	312	116	29	20
8	17	17	17	16	b30	45	99	192	256	108	34	21
9	17	16	16	17	b30	42	97	207	243	101	35	20
10	17	14	14	17	30	40	87	260	252	102	35	21
11	18	19	15	15	28	33	84	308	273	93	34	20
12	17	20	15	18	b28	b34	95	354	222	91	28	26
13	16	20	16	17	28	b34	111	421	220	81	30	35
14	16	20	17	16	28	b35	99	520	226	75	41	34
15	16	20	17	17	29	35	99	578	302	70	64	33
16	16	20	17	19	28	35	127	611	275	66	64	33
17	15	19	15	30	28	38	174	584	269	62	64	34
18	15	19	14	28	29	38	207	540	262	57	62	29
19	16	19	14	*30	30	48	256	521	271	53	54	26
20	18	19	b15	32	30	56	334	533	287	49	41	24
21	18	19	17	35	30	60	421	574	308	47	26	24
22	17	19	18	57	30	64	458	604	275	44	23	23
23	17	20	18	54	30	57	453	590	265	46	28	22
24	17	21	17	38	32	52	437	592	229	47	30	21
25	17	21	17	b35	34	51	464	584	190	45	32	21
26	17	21	17	b35	35	49	546	542	183	43	31	32
27	17	24	17	38	38	46	596	549	177	40	30	38
28	16	26	17	36	38	45	500	548	176	36	36	36
29	16	24	17	b35	-	47	437	502	183	34	49	28
30	16	22	16	34	-	55	455	504	182	33	43	22
31	16	-	16	b32	-	66	-	540	-	51	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	498	18	14	16.1	988
November	571	26	14	19.0	1,130
December	514	20	14	16.6	1,020
Calendar year 1949	25,936	678	12	71.1	51,450
January	817	57	15	26.4	1,620
February	879	40	28	31.4	1,740
March	1,410	66	33	45.5	2,800
April	7,486	596	77	250	14,850
May	13,619	611	192	439	27,010
June	8,470	532	176	282	16,800
July	2,473	172	33	79.8	4,910
August	1,363	67	23	44.0	2,700
September	814	38	19	27.1	1,610
Water year 1949-50	38,914	611	14	107	77,180

Peak discharge (base, 500 sec.-ft.).--Apr. 27 (7 p.m.) 731 sec.-ft.; May 16 (10:30 p.m.) 747 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Clear Creek near Carson City, Nev.

Location.--Water-stage recorder, lat. 39°07', long. 119°49', in sec. 1, T. 14 N., R. 19 E., 3 miles upstream from mouth and 4 miles southwest of Carson City.

Drainage area.--15 square miles.

Records available.--March 1948 to September 1950.

Extremes.--Maximum discharge during year, 44 second-feet Jan. 22 (gage height, 1.58 feet); minimum, 1.6 second-feet Oct. 4, 5.
1948-50: Maximum discharge, that of Jan. 22, 1950; minimum, 1.0 second-foot Aug. 4, 5, 6, 20, 1949.

Remarks.--Records fair. Four small diversions for irrigation of about 150 acres of hay meadows and pasture above station. Statement regarding diversions above station published in Water-Supply Papers 1120 and 1150 in error.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	1.9	3.1	3.8	5.5	*7.3	9.6	13	7.6	4.0	2.7	2.1
2	1.8	1.9	3.4	3.6	b5	7.3	11	11	6.7	4.0	2.9	2.1
3	1.8	1.9	*3.4	b3.5	7.3	7.3	11	11	6.1	4.0	2.7	2.1
4	1.8	1.9	2.9	b3.5	*8.9	7.6	*10	10	5.8	4.0	2.9	2.1
5	1.8	1.9	2.9	b3.5	8.6	8.9	9.2	9.2	5.8	4.0	2.9	2.1
6	1.8	1.9	3.1	b3.5	9.6	7.9	10	8.9	5.8	4.0	2.7	2.1
7	2.1	2.1	3.4	3.8	6.1	7.6	10	8.6	6.7	3.8	2.6	2.3
8	2.1	2.7	3.1	3.8	5.5	7.3	10	8.2	6.7	3.8	2.6	2.3
9	2.1	3.6	3.1	3.8	5.8	7.3	10	8.2	6.4	3.8	2.6	2.3
10	2.1	4.3	3.1	3.8	6.4	7.0	11	8.2	6.1	3.8	2.4	2.3
11	2.1	4.0	b3	3.6	5.8	7.0	11	8.6	6.4	3.8	2.6	2.3
12	2.1	4.0	b3	3.8	4.7	b7	11	9.2	6.1	3.8	2.6	2.3
13	1.9	4.3	3.4	3.8	4.7	6.7	11	9.6	6.1	3.8	2.6	2.3
14	1.9	4.3	3.4	3.4	5.8	6.4	10	11	6.1	3.4	2.6	2.3
15	1.9	4.3	3.6	5.2	6.4	6.4	10	11	10	3.4	2.4	2.3
16	2.1	4.3	3.6	*6.2	6.7	6.4	11	11	6.4	3.1	2.4	2.3
17	1.9	4.0	3.6	*21	6.1	8.6	11	11	5.8	3.1	2.3	2.7
18	2.1	4.0	3.8	*13	6.1	7.0	12	10	5.8	2.9	2.3	2.7
19	1.9	4.0	3.6	8.6	6.7	11	12	8.9	5.2	2.9	2.3	2.7
20	2.1	3.8	b3.5	7.3	6.4	8.2	14	8.6	5.0	3.1	2.3	2.6
21	2.1	3.8	b3.5	10	6.1	7.3	15	8.6	5.0	3.1	2.3	2.4
22	2.1	3.8	b3.5	20	6.1	10	15	8.6	4.7	3.1	2.1	2.3
23	2.1	4.0	3.8	20	6.7	7.9	14	8.9	4.7	2.9	2.3	2.3
24	2.1	a4	3.8	10	7.0	8.6	13	8.9	4.7	2.9	2.3	2.3
25	2.1	a4	3.6	8.2	7.0	8.6	13	8.6	4.7	2.9	2.3	2.1
26	2.1	a4	3.6	b7	7.6	8.2	13	8.9	4.7	2.9	2.3	2.3
27	1.9	a4	3.6	5.8	7.6	8.9	14	9.6	4.7	2.9	2.1	2.3
28	2.1	a4	4.0	5.8	7.3	9.6	12	9.2	4.7	2.9	1.9	2.3
29	2.1	a3.5	4.0	b5.5	-	9.2	11	8.6	4.5	3.1	1.9	2.1
30	2.1	a3.5	4.0	b5	-	10	11	8.6	4.3	3.1	2.1	2.4
31	1.9	-	3.6	5.0	-	9.2	-	8.9	-	2.9	2.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	62.0	2.1	1.8	2.00	123
November	103.7	4.3	1.9	3.46	206
December	107.0	4.0	2.9	3.45	212
Calendar year 1949	1,463.6	13	1.1	4.01	2,900
January	214.8	21	3.4	6.93	426
February	183.5	9.6	4.7	6.55	364
March	247.7	11	6.4	7.99	491
April	345.8	15	9.2	11.5	686
May	292.6	13	8.2	9.44	580
June	173.3	10	4.3	5.78	344
July	105.2	4.0	2.9	3.39	209
August	75.1	2.9	1.9	2.42	149
September	69.1	2.7	2.1	2.30	137
Water year 1949-50	1,979.8	21	1.8	5.42	3,930

Peak discharge (base, 15 sec.-ft.).--Jan. 17 (3 p.m.) 27 sec.-ft.; Jan. 22 (1:30 a.m.) 44 sec.-ft.; Mar. 19 (3 p.m.) 19 sec.-ft.; Apr. 21 (11 p.m.) 18 sec.-ft.; June 15 (5 a.m.) 16 sec.-ft.

* Winter discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

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.

Records available.--October 1944 to September 1950. June 1895 to October 1902 at site 11 miles downstream.

Average discharge.--11 years (1897-1902, 1944-50), 236 second-feet.

Extremes.--Maximum discharge during year, 1,240 second-feet June 10 (gage height, 6.13 feet); minimum, 1.0 second-foot Sept. 4.
1895-1902, 1944-50: Maximum discharge, 2,530 second-feet June 9, 1945; no flow for several days in August and September 1948.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	2.8	18	16	80	270	283	460	911	362	23	1.3
2	1.3	3.4	17	15	75	241	318	458	976	336	19	1.2
3	1.4	4.0	17	16	75	225	343	477	1,080	332	19	1.2
4	1.4	4.4	16	15	80	*221	348	521	1,120	332	16	1.1
5	1.5	4.8	16	14	80	227	327	527	1,090	345	14	1.2
6	1.5	6.2	16	14	70	227	312	497	1,040	334	14	1.2
7	1.5	5.0	18	15	72	229	309	512	1,010	312	14	1.3
8	1.6	5.3	17	17	80	207	336	561	1,030	323	13	1.6
9	2.0	6.8	18	17	90	197	384	548	1,160	348	12	1.8
10	2.1	10	17	16	110	195	409	509	1,210	367	11	1.4
11	1.8	10	17	15	115	186	407	455	1,090	350	10	1.6
12	1.6	9.5	15	15	105	170	409	404	919	320	9.0	1.4
13	1.5	10	*14	15	100	158	422	367	786	336	8.0	1.3
14	1.5	*13	14	16	95	159	428	334	690	294	7.1	1.4
15	1.6	13	14	15	105	161	438	309	612	245	6.2	1.3
16	1.5	13	17	17	120	165	444	292	570	219	5.3	1.3
17	1.5	13	20	20	135	167	463	301	548	192	5.0	1.6
18	1.5	13	16	22	165	169	472	314	542	167	4.6	1.6
19	1.6	14	16	24	180	188	463	338	554	150	4.0	1.5
20	2.1	14	15	20	190	201	452	379	583	131	3.4	1.5
21	1.6	14	16	35	227	225	447	441	567	115	3.0	1.4
22	1.5	14	16	60	233	237	444	474	554	102	2.6	1.4
23	1.5	15	17	80	223	241	460	500	564	90	2.4	1.4
24	1.5	16	17	100	225	239	463	564	608	76	2.1	1.4
25	1.5	16	16	110	235	270	458	608	650	65	1.8	1.5
26	1.4	16	17	100	249	303	438	664	631	54	1.6	1.6
27	1.4	19	17	95	296	305	436	731	567	47	1.6	1.4
28	1.5	19	17	*90	290	294	430	778	497	40	1.5	1.5
29	1.6	19	16	85	-	272	441	803	415	36	1.5	1.6
30	1.5	19	16	85	-	258	455	831	364	30	1.4	1.6
31	2.2	-	16	85	-	254	-	870	-	26	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	49.0	2.2	1.3	1.58	97
November	342.2	19	2.8	11.4	679
December	509	20	14	16.4	1,010
Calendar year 1949	67,476.4	1,370	.8	185	133,800
January	1,259	110	14	40.6	2,500
February	4,100	296	70	146	8,130
March	6,861	305	158	221	13,610
April	12,239	472	283	408	24,280
May	15,827	870	292	511	31,390
June	22,938	1,210	364	765	45,500
July	6,476	367	26	209	12,840
August	238.4	23	1.3	7.69	473
September	42.6	1.8	1.1	1.42	84
Water year 1949-50	70,881.2	1,210	1.1	194	140,600

Peak discharge (base, 550 sec.-ft.).--May 8 (7:30 a.m.) 575 sec.-ft.; June 10 (5:30 a.m.) 1,240 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 11, 12, Dec. 19 to Feb. 19.

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 1950.

Extremes.--Maximum discharge during year, 1,730 second-feet June 8 (gage height, 5.24 feet); minimum, 10 second-feet Oct. 1.
1943-50: Maximum discharge, 3,640 second-feet June 10, 1945 (gage height, 7.78 feet); minimum, 3.6 second-feet Sept. 7, 1948.
High water of February 1943 reached a stage of 9.8 feet (discharge, 5,900 second-feet, by slope-area method).

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	19	27		*a130	363	406	623	1,490	664	101	15
2	12	20	30		a125	357	420	644	1,520	640	93	16
3	12	20	49		a130	341	451	660	1,550	619	91	16
4	12	21	37		134	328	479	656	1,520	607	84	15
5	12	22	36		142	322	494	656	1,540	565	78	15
6	12	24	36		156	319	497	669	1,560	542	72	14
7	13	26	35		185	309	487	728	1,650	542	66	14
8	15	25	41		190	306	497	715	1,710	561	61	14
9	15	27	45	55	185	303	546	690	1,680	542	56	15
10	18	32	45		190	285	576	681	1,540	542	52	14
11	18	31	43		176	276	611	656	1,430	549	48	15
12	18	32	42		154	259	627	615	1,460	531	42	16
13	18	29	40		152	250	623	568	1,420	494	41	16
14	18	28	*42		152	245	640	497	1,280	472	39	17
15	17	27	40		156	242	652	497	1,170	469	37	17
16	17	27	44	60	169	234	664	494	1,060	437	32	16
17	16	29	49	70	183	234	631	508	1,000	376	29	16
18	16	29	41	80	181	237	636	546	955	334	29	18
19	16	29	47	95	208	248	644	584	915	303	26	19
20	17	29	50	110	245	273	656	584	905	270	23	19
21	19	29	52	125	248	285	664	631	935	253	22	19
22	19	29	54	146	259	294	681	698	1,000	234	20	19
23	19	28	52	156	267	316	707	786	1,010	210	19	19
24	19	30	50	169	279	334	690	895	975	188	20	19
25	19	*31	50	146	276	373	690	965	930	165	21	19
26	20	30	55	148	285	389	685	1,040	895	144	21	19
27	19	29	60	163	306	406	669	1,100	890	138	21	18
28	19	29	56	159	350	410	660	1,140	870	130	22	17
29	19	27	54	142	-	406	652	1,200	827	128	20	17
30	19	26	54	130	-	393	631	1,280	764	119	18	17
31	19	-	54	130	-	399	-	1,370	-	108	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	513	20	11	16.5	1,020
November	814	32	19	27.1	1,610
December	1,410	60	27	45.5	2,800
Calendar year 1949	103,848.8	1,780	6.0	285	206,000
January	2,854	169		92.1	5,660
February	5,613	350	125	200	11,130
March	9,736	410	234	314	19,310
April	17,986	707	406	599	35,640
May	23,376	1,370	494	754	46,370
June	36,451	1,710	764	1,220	72,300
July	11,876	664	108	383	23,560
August	1,320	101	16	42.6	2,620
September	500	19	14	16.7	992
Water year 1949-50	112,429	1,710	11	308	223,000

Peak discharge (base, 900 sec.-ft.).--June 8, (9 p.m.) 1,730 sec.-ft.
* 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 Humboldt River stations.
Note.--Stage-discharge relation affected by ice Dec. 10-12, 14, Dec. 20 to Jan. 21.

Humboldt River at Palisade, Nev.

Location.--Water-stage recorder, lat. 40°38', 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 1950.

Average discharge.--42 years (1903-6, 1911-50), 361 second-feet.

Extremes.--Maximum discharge during year, 1,770 second-feet June 9 (gage height, 5.43 feet); minimum, 17 second-feet Dec. 12.
1902-6, 1911-50: Maximum discharge, 6,250 second-feet Feb. 26, 1943 (gage height, 9.92 feet); minimum, 2 second-feet Aug. 25-28, 1931.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Diversion above station for irrigation of about 150,000 acres of hay and pasture land.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	34	39	58	134	457	589	810	1,460	703	95	28
2	26	25	40	62	b130	444	637	833	1,560	647	91	28
3	27	21	45	56	b135	444	682	862	1,570	632	89	27
4	27	22	53	57	b140	432	682	850	1,570	599	86	26
5	25	23	46	66	151	444	687	827	1,550	570	80	26
6	26	22	46	68	175	453	692	827	1,580	538	74	26
7	28	26	45	73	187	410	687	892	1,670	524	69	28
8	30	29	43	73	192	398	703	880	1,730	528	64	31
9	30	30	46	78	189	394	761	833	1,750	533	62	31
10	33	40	43	73	192	373	799	816	1,620	524	61	28
11	33	41	44	76	189	357	827	799	1,480	533	59	28
12	33	39	43	69	192	326	868	761	1,460	524	58	27
13	33	40	56	73	192	312	833	718	1,460	488	53	25
14	33	37	41	67	195	306	844	642	1,340	449	52	26
15	33	39	51	b70	204	304	856	618	1,200	444	48	27
16	32	38	49	b80	225	297	868	594	1,090	423	46	27
17	32	38	52	b90	238	293	856	623	1,010	377	43	27
18	31	38	52	119	238	312	856	662	962	326	41	29
19	32	39	51	89	255	319	880	739	923	286	39	31
20	31	40	44	93	300	381	904	729	898	255	37	31
21	33	41	55	110	319	381	916	750	904	225	35	32
22	34	40	*51	134	312	381	936	788	962	210	33	31
23	34	39	56	184	323	398	975	886	994	189	32	30
24	34	41	51	213	338	427	968	956	988	173	31	31
25	34	43	48	201	353	497	956	1,040	949	157	33	31
26	34	43	62	167	377	520	923	1,100	910	134	34	31
27	35	41	51	170	414	524	898	1,140	910	129	35	31
28	35	43	51	198	*440	515	874	1,180	892	122	37	31
29	34	44	52	144	-	502	868	1,220	856	110	34	31
30	34	40	58	*134	-	488	844	1,280	804	108	32	31
31	35	-	59	139	-	551	-	1,360	-	102	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	977	35	25	31.5	1,940
November	1,076	44	21	35.9	2,130
December	1,523	62	39	49.1	3,020
Calendar year 1949	118,123	1,940	17	324	234,300
January	3,284	213	56	106	6,510
February	6,729	440	130	240	13,350
March	12,640	551	293	408	25,070
April	24,669	975	589	822	48,930
May	27,015	1,360	594	871	53,580
June	37,052	1,750	804	1,235	73,490
July	11,562	703	102	373	22,930
August	1,613	95	30	52.0	3,200
September	867	32	25	28.9	1,720
Water year 1949-50	129,007	1,750	21	353	255,900

Peak discharge (base, 560 sec.-ft.).--Apr. 23 (12 m. to 2 p.m.) 982 sec.-ft.; June 9 (8 a.m.) 1,770 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

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 1946 to September 1950.

Extremes.--Maximum discharge during year, 1,330 second-feet June 11 (gage height, 7.58 feet); minimum, 1.1 second-feet Oct. 1.
1946-50: Maximum discharge, 1,780 second-feet Apr. 27, 28, 1946 (gage height, 8.58 feet); minimum, 0.5 second-foot Oct. 11, 1948.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	20	37	52	65	*422	558	712	1,040	682	91	3.6
2	1.3	20	36	50	70	440	590	694	1,090	618	84	3.4
3	1.3	21	36	48	75	438	620	706	1,160	575	79	3.4
4	1.4	20	38	46	*90	440	646	709	1,210	558	72	3.2
5	1.6	18	42	46	110	438	658	718	1,220	538	53	2.9
6	1.6	18	a40	48	150	445	661	706	1,220	518	49	2.9
7	1.6	18	a40	52	200	445	667	721	1,240	498	44	2.9
8	1.6	20	a38	56	220	420	670	772	1,270	488	41	3.2
9	1.6	21	a40	58	230	408	706	760	1,300	495	39	3.2
10	1.8	24	a43	60	225	398	742	733	1,300	495	35	3.2
11	1.4	25	a42	58	220	382	763	721	1,320	492	33	2.9
12	1.4	27	40	55	200	368	790	688	1,260	485	49	2.9
13	4.2	28	41	50	205	340	810	661	1,240	475	45	2.7
14	6.4	28	42	50	212	328	805	650	1,240	450	42	2.9
15	7.5	28	45	50	210	320	817	582	1,200	420	42	2.9
16	7.9	28	*48	52	220	318	826	562	1,100	410	40	2.9
17	9.1	28	49	54	229	315	832	548	988	395	33	3.4
18	9.5	*28	50	57	243	312	829	548	915	355	29	7.1
19	11	30	47	60	245	330	829	575	862	308	26	10
20	13	31	42	62	256	345	844	620	817	274	24	10
21	15	32	45	65	284	385	826	620	793	250	22	10
22	16	32	45	70	302	390	823	638	781	227	20	10
23	19	33	50	72	305	395	823	661	805	210	16	9.9
24	19	34	52	72	320	385	817	715	829	193	14	9.5
25	20	34	50	72	330	422	793	766	829	180	13	9.9
26	20	35	54	72	340	492	781	811	805	165	10	10
27	20	35	56	70	362	512	751	856	766	145	6.7	9.9
28	21	36	55	68	398	515	718	880	763	129	5.5	9.5
29	20	35	57	68	-	515	697	908	745	117	4.5	11
30	20	36	55	70	-	512	727	943	724	110	3.9	11
31	20	-	53	68	-	510	-	985	-	101	3.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	296.5	21	1.3	9.56	588
November	823	36	18	27.4	1,630
December	1,408	57	36	45.4	2,790
Calendar year 1949	99,223.2	1,430	1.1	272	196,800
January	1,831	72	46	59.1	3,630
February	6,316	398	65	226	12,530
March	12,685	515	312	409	25,160
April	22,419	844	558	747	44,470
May	22,149	985	548	714	43,930
June	30,832	1,320	724	1,028	61,150
July	11,356	682	101	366	22,520
August	1,069.2	91	3.6	34.5	2,120
September	180.3	11	2.7	6.01	358
Water year 1949-50	111,365.0	1,320	1.3	305	220,900

Peak discharge (base 400 sec.-ft.).--Mar. 7 (5 a.m.) 460 sec.-ft.; Apr. 20 (10:15 p.m.) 847 sec.-ft.; June 11 (9:30 a.m.) 1,330 sec.-ft.

* Winter discharge measurement made on this day.

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

Note.--Stage-discharge relation affected by ice Dec. 12 to Feb. 13.

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Humboldt River at Battle Mountain, Nev.

Location.--Water-stage recorder, lat. 40°39', long. 116°56', in SE¼ sec. 8, T. 22 N., R. 42 E., 1 mile northeast of Battle Mountain. Reese River, when flowing, enters Humboldt River several miles below station.

Records available.--July 1897 to December 1897 (gage heights only), March 1921 to April 1924, January 1926 to September 1950.

Extremes.--Maximum discharge during year, 1,170 second-feet June 14 (gage height, 7.54 feet), minimum, 0.1 second-foot Oct. 1-7, 18-19.
1921-24, 1926-50: Maximum discharge observed, 1,580 second-feet June 19, 20, 1921, May 14-17, 1923; no flow Sept. 8 to Oct. 22, 1948, Sept. 21-26, 1949.

Remarks.--Records good except those for periods of ice effect, which are fair. Records do not include flow in secondary channels or ditches, most of which is used for irrigation. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	16	32		50	372	509	646	841	729	89	4.2
2	.1	17	32		50	399	555	634	875	672	82	3.8
3	.1	18	33		50	399	606	634	909	594	75	3.3
4	.1	17	32		*80	397	646	632	930	558	71	2.8
5	.1	17	34		90	391	659	639	948	528	61	2.4
6	.1	16	36		100	393	666	639	982	505	54	2.1
7	.1	15	41		110	397	669	636	1,010	480	50	2.1
8	.2	15	38	40	120	387	669	666	1,050	463	45	2.5
9	.2	17			125	*368	689	699	1,050	458	42	3.0
10	.2	17			130	362	719	682	1,070	478	38	3.0
11	.2	21			135	347	735	662	1,100	467	36	2.8
12	.1	22			140	331	750	642	1,120	460	38	2.5
13	.1	24			150	315	766	606	1,140	458	42	2.3
14	.1	26			160	295	771	577	1,140	432	40	2.1
15	.1	26			170	283	761	532	1,140	402	37	2.0
16	.1	26	*35		176	278	765	491	1,120	378	36	1.8
17	.1	26			185	272	766	467	1,090	368	35	1.7
18	.1	*26		45	200	266	774	456	1,050	341	30	1.7
19	1.7	26			208	280	761	460	966	295	27	2.4
20	5.6	26			209	285	755	500	893	259	24	5.9
21	7.5	27			227	317	766	514	844	235	22	7.3
22	8.5	27			249	337	765	521	815	214	20	7.0
23	10	28			257	349	735	518	802	196	17	7.3
24	14	29			272	355	724	546	828	178	14	6.7
25	13	29			281	362	724	580	841	163	13	6.4
26	14	29		50	295	419	716	622	839	149	12	6.1
27	15	30			311	474	686	656	815	137	11	6.7
28	16	30	40		337	498	672	716	789	122	8.8	6.7
29	16	31			-	502	659	742	794	110	7.3	6.7
30	15	31			-	498	639	771	763	104	5.9	7.8
31	15	-			-	487	-	797	-	96	4.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	154.8	16	0.1	4.99	307
November	707	31	15	23.6	1,400
December	1,113	-	-	35.9	2,210
Calendar year 1949	91,585.7	1,160	0	251	181,700
January	1,375	-	-	44.4	2,730
February	4,977	337	50	174	9,670
March	11,411	502	286	368	22,630
April	21,051	774	509	702	41,750
May	18,583	797	456	609	37,450
June	29,554	1,140	783	951	56,600
July	11,029	729	96	356	21,880
August	1,087.0	89	4.9	35.1	2,160
September	122.9	7.8	1.6	4.10	244
Water year 1949-50	100,345.6	1,140	.1	275	199,000

Peak discharge (base, 350 sec.-ft.).--Mar. 6 (2:30 p.m.) 412 sec.-ft.; Apr. 22 (2:30 p.m.) 810 sec.-ft.; June 14 (3:45 p.m.) 1,170 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 2, Dec. 9 to Feb. 15.

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.

Records available.--September 1917 to June 1923, May 1925 to May 1926, February 1946 to September 1950.

Extremes.--Maximum discharge during year, 889 second-feet June 19 (gage height, 6.55 feet); minimum, 0.1 second-foot for several days in October, November, September. 1917-23, 1925-26, 1946-50: 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 in 1918, 1919, 1920.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.1	25			286	424	514	525	684	126	4.6
2	.2	.1	27		35	302	424	510	568	680	116	3.6
3	.2	.1	28			318	430	508	579	671	109	2.2
4	.1	.1				334	450	506	581	649	102	1.3
5	.1	.1			40	342	479	504	599	612	94	.9
6	.1	.1			45	347	508	496	605	570	86	.6
7	.2	.1			50	345	525	498	610	538	77	.5
8	.2	.1			60	347	533	504	629	508	67	.5
9	.1	.1			70	*353	538	512	656	479	61	.4
10	.2	.1		25	90	351	542	516	673	468	54	.3
11	.2	.1			110	343	550	523	691	458	48	.3
12	.1	.1			120	336	563	538	713	454	44	.3
13	.1	.1			130	329	581	544	772	442	41	.2
14	.1	.1			140	320	599	542	816	432	39	.2
15	.1	.1			150	307	605	574	838	416	38	.2
16	.1	.1			165	297	614	531	854	402	37	.2
17	.2	.1	*25		180	289	621	485	869	381	35	.2
18	.2	*.1		(*)	190	284	621	440	885	364	32	.2
19	.2	.1			201	282	614	424	887	351	31	.2
20	.1	.1			211	279	610	418	885	327	28	.1
21	.1	.1			216	282	612	412	882	300	26	.1
22	.1	.1			219	289	610	424	865	270	21	.1
23	.1	1.3			230	306	601	426	843	253	19	.1
24	.1	7.2			244	320	592	420	810	237	18	.1
25	.1	12		35	253	336	559	387	777	225	17	.1
26	.1	17			262	342	552	408	746	209	16	.1
27	.1	20			271	343	561	440	731	192	14	.1
28	.1	21			279	366	535	454	720	180	12	.1
29	.1	21			-	393	514	470	711	163	10	.1
30	.1	23			-	412	516	489	698	150	8.8	.1
31	.1	-			-	422	-	438	-	138	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4.1	0.2	0.1	0.13	8.1
November	124.7	23	.1	4.16	247
December	780	-	-	25.2	1,550
Calendar year 1949	75,231.8	947	.1	206	149,200
January	915	-	-	29.5	1,810
February	4,066	279	-	145	8,060
March	10,202	422	279	329	20,240
April	16,485	621	424	549	32,690
May	14,915	574	387	481	29,580
June	22,020	887	525	734	43,680
July	12,203	684	138	394	24,200
August	1,434.0	126	7.2	46.3	2,840
September	18.0	4.6	.1	.60	36
Water year 1949-50	83,164.8	887	.1	228	164,900

Peak discharge (base, 330 sec.-ft.).--Apr. 18 (8 a.m.) 625 sec.-ft.; May 15 (11:30 a.m.) 665 sec.-ft.; June 19 (2 p.m.) 889 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 4 to Feb. 18.

Humboldt River near Rose Creek, Nev.

Location.--Water-stage recorder, lat. 40°52', long. 118°00', in NW¼ sec. 36, T. 35 N., R. 35 E., 5½ miles southwest of Rose Creek and 15½ miles southwest of Winnemucca.

Records available.--April 1946 to September 1950.

Extremes.--Maximum discharge during year, 684 second-feet June 26, 27 (gage height, 4.75 feet); minimum, 19 second-feet Nov. 27-30.
1948-50: Maximum discharge, 708 second-feet June 24, 1948 (gage height, 4.86 feet); minimum, 6.5 second-feet Sept. 2, 1949.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	22	20		40	214	318	455	362	642	191	53
2	22	22	24		40	223	331	409	370	621	180	53
3	22	22	26		45	230	341	401	354	609	168	51
4	22	22	27		50	236	346	398	293	606	158	51
5	22	20	27		60	243	344	436	289	592	154	49
6	22	22	26		70	252	349	428	303	580	146	48
7	23	22	26	30	80	263	357	409	328	575	139	46
8	23	22			101	274	370	398	357	566	131	48
9	23	22			101	274	377	409	455	547	125	48
10	24	23			108	277	372	393	393	541	120	46
11	24	23			108	281	336	383	383	527	112	46
12	24	23			110	279	316	367	411	513	108	45
13	24	23			120	298	316	372	409	491	103	45
14	22	22			127	296	320	316	344	477	98	43
15	22	22			144	293	326	328	377	463	92	45
16	22	22			158	289	354	333	466	441	89	51
17	22	22		35	160	284	370	336	513	425	83	53
18	22	22			168	279	364	354	547	414	80	49
19	22	22	(*)		174	274	338	318	569	401	76	48
20	22	22	30	36	178	270	277	279	575	385	73	45
21	22	*23		37	180	261	245	286	569	367	69	45
22	22	23		38	183	261	274	289	594	354	68	43
23	22	23			183	258	219	238	615	341	66	42
24	22	22			185	263	263	221	657	318	62	42
25	22	20			191	268	289	232	666	289	61	42
26	20	20		40	199	270	284	225	675	272	61	40
27	20	19			204	277	377	245	681	258	59	40
28	20	19			210	286	367	247	663	241	59	38
29	22	19			-	281	245	306	645	227	57	38
30	22	19			-	284	303	357	651	216	56	38
31	22	-			-	308	-	406	-	206	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	687	24	20	22.2	1,360
November	649	23	19	21.6	1,290
December	896	-	20	28.9	1,780
Calendar year 1949	59,753	630	11	164	118,500
January	1,061	-	-	34.2	2,100
February	3,677	210	40	131	7,290
March	8,346	308	214	269	16,550
April	9,688	377	219	323	19,220
May	10,574	455	221	341	20,970
June	14,514	681	289	484	28,790
July	13,505	642	206	436	26,790
August	3,098	191	54	99.9	6,140
September	1,371	53	38	45.7	2,720
Water year 1949-50	68,066	681	19	186	135,000

Peak discharge (base, 350 sec.-ft.).--Apr. 17 (11 p.m.) 383 sec.-ft.; May 1 (2 a.m.) 494 sec.-ft.; June 26 (10:55 a.m.) 684 sec.-ft.; June 27 (1 to 4 p.m.) 684 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 6, Dec. 8 to Feb. 7.

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 northwest of Imlay.

Drainage area.--13,500 square miles.

Records available.--June 1935 to September 1941, April 1945 to September 1950.

Average discharge.--11 years (1935-41, 1945-50), 113 second-feet.

Extremes.--Maximum discharge during year, 648 second-feet July 2 (gage height, 5.49 feet); minimum, 13 second-feet Dec. 5.
1935-41, 1945-50: Maximum discharge, 2,220 second-feet May 31, June 1, 1945 (gage height 10.49 feet, present datum); no flow at times in several years.

Remarks.--Records good except those for periods 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, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	19	19	35	70	201	297	298	387	616	203	53
2	17	19	19	34	73	207	308	419	354	639	191	51
3	17	19	20	33	80	213	321	390	358	623	180	50
4	17	19	22	33	90	218	330	380	348	606	169	49
5	17	19	22	33	100	227	337	383	300	600	161	47
6	17	19	24	31	110	234	341	414	287	594	156	47
7	17	19	26	31	105	242	345	409	303	582	150	48
8	18	19	26	32	110	256	353	395	324	576	141	54
9	19	20	25	33	110	266	365	390	356	568	135	50
10	19	20	24	35	108	270	373	395	424	556	127	49
11	20	21	24	37	105	278	366	387	387	546	122	47
12	20	21	25	35	100	276	337	373	368	526	117	45
13	19	20	27	32	105	276	317	356	385	511	110	44
14	19	20	26	*30	108	295	321	356	382	482	104	43
15	19	20	25	31	114	295	324	316	325	471	99	43
16	19	20	27	35	132	289	313	322	353	455	94	42
17	19	20	28	40	141	289	317	329	426	439	87	47
18	19	20	27	45	*153	282	332	317	477	426	82	53
19	19	20	*26	50	160	278	329	332	502	409	79	52
20	19	20	27	60	166	276	305	295	524	395	76	49
21	20	*20	30	70	170	276	250	263	536	383	73	46
22	20	21	31	74	173	275	217	274	542	366	70	43
23	20	22	32	71	174	275	245	269	566	351	67	41
24	20	21	31	70	175	272	206	229	584	338	70	40
25	20	21	30	66	177	272	239	206	620	319	67	40
26	20	20	32	62	183	274	260	215	629	289	62	39
27	20	20	33	66	190	272	264	211	631	269	62	38
28	20	19	33	70	196	276	335	236	637	254	60	37
29	19	18	34	70	-	284	337	241	635	239	58	36
30	19	18	35	74	-	275	251	293	625	225	56	36
31	19	-	35	72	-	275	-	345	-	214	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	585	20	17	18.9	1,160
November	594	22	18	19.8	1,180
December	845	35	19	27.3	1,680
Calendar year 1949	58,538	639	17	160	116,100
January	1,490	74	30	48.1	2,960
February	3,676	196	70	131	7,290
March	8,194	295	201	264	16,250
April	9,235	373	206	308	18,320
May	10,038	419	206	324	19,910
June	13,575	637	287	452	26,930
July	13,867	639	214	447	27,500
August	3,282	203	54	106	6,510
September	1,359	54	36	45.3	2,700
Water year 1949-50	66,740	639	17	183	132,400

Peak discharge (base, 350 sec.-ft.).--Apr. 11 (12:30 a.m.) 376 sec.-ft.; May 2 (1:15 p.m.) 428 sec.-ft.; June 1 (9:30 a.m.) 402 sec.-ft.; July 2 (7 a.m.) 648 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 6, Dec. 8 to Jan. 20, Jan. 24 to Feb. 12.

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 1950.

Extremes.--Maximum contents during year, 56,610 acre-feet Apr. 13, 18, 19 (elevation, 4,118.55 feet); minimum, 29,030 acre-feet Sept. 30 (elevation, 4,111.65 feet).
1936-50: Maximum contents, 196,900 acre-feet Apr. 9, 1946 (elevation, 4,134.62 feet); minimum since operation began, 1,760 acre-feet Oct. 16, 1937.

Remarks.--Reservoir is formed by earth-fill, rock-faced dam; storage began Feb. 20, 1936. Capacity, 179,100 acre-feet 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35,520	30,640	32,010	33,240	35,850	42,690	54,880	50,560	47,070	49,510	47,750	36,860
2	35,520	30,790	32,010	33,410	36,010	42,880	55,170	50,560	46,840	50,300	47,070	36,010
3	35,520	30,790	32,170	33,410	36,010	43,070	55,750	50,040	46,610	51,350	46,380	35,850
4	34,710	30,940	32,170	33,570	36,010	43,460	55,750	51,080	45,930	51,350	46,380	35,360
5	34,870	30,940	32,170	33,570	36,340	41,530	55,750	51,350	45,700	51,610	45,930	34,870
6	34,550	31,100	32,170	33,570	36,510	44,110	55,750	51,610	44,340	51,870	45,250	34,550
7	34,380	31,100	32,170	33,730	36,880	44,340	54,880	51,870	44,560	52,130	45,250	33,900
8	34,220	31,100	32,170	33,730	37,030	44,790	55,750	51,870	43,650	52,130	44,790	33,730
9	33,730	31,100	32,170	33,900	37,200	45,250	56,030	52,650	43,460	52,130	44,340	33,240
10	33,570	31,100	32,320	33,900	37,380	46,840	55,750	52,650	43,270	51,870	44,340	32,930
11	33,240	31,250	32,320	33,900	37,550	46,610	55,750	52,920	43,070	51,870	43,650	32,470
12	33,900	31,250	32,470	33,900	37,720	46,840	56,030	52,920	43,070	52,920	42,880	32,170
13	33,410	31,250	32,470	34,060	37,890	47,070	56,610	53,180	42,880	52,920	42,690	31,860
14	32,780	31,400	32,470	34,220	38,070	47,980	56,320	53,440	42,690	53,180	42,110	31,560
15	32,470	31,400	32,470	34,220	38,240	48,200	56,320	53,180	43,070	53,440	42,110	31,100
16	32,320	31,400	32,470	34,220	38,590	48,730	56,320	53,180	43,270	53,440	42,110	30,640
17	32,170	31,400	32,620	34,220	38,760	48,990	56,320	52,650	43,460	53,180	41,920	30,330
18	32,010	31,400	32,620	34,220	38,930	49,510	56,610	52,650	43,650	52,390	41,920	30,030
19	31,860	31,560	32,780	34,380	39,280	49,510	56,610	52,390	43,880	52,130	41,530	29,890
20	31,710	31,560	32,780	34,380	39,800	50,300	56,320	52,130	43,880	52,130	41,150	29,890
21	31,710	31,560	32,780	34,550	40,180	50,820	55,750	51,870	44,110	51,350	40,950	29,890
22	31,710	31,560	32,780	34,550	40,180	50,820	55,460	51,350	44,340	50,820	39,990	29,890
23	31,710	31,710	32,780	34,710	40,570	51,350	55,460	51,350	44,560	50,300	39,620	29,890
24	31,710	31,710	32,930	35,360	40,760	51,350	54,880	51,080	45,020	50,040	39,450	29,890
25	31,560	31,710	32,930	35,360	41,150	52,390	53,730	50,300	45,250	48,990	38,930	29,740
26	31,400	31,710	32,930	35,360	41,340	52,390	53,440	50,040	46,160	49,510	38,760	29,740
27	31,250	31,710	33,080	35,520	41,920	52,920	52,920	48,990	46,610	49,510	38,410	29,740
28	30,940	31,860	33,080	35,690	42,690	53,440	52,650	48,460	47,520	48,990	38,410	29,460
29	30,940	31,860	33,080	35,690	-	54,020	51,870	47,980	48,460	48,990	37,720	29,320
30	30,790	32,010	33,080	35,690	-	54,300	51,610	47,750	48,990	48,460	37,380	29,030
31	30,640	-	33,240	35,850	-	54,880	-	47,520	-	47,980	37,030	-

Monthly elevation and contents, water year October 1949 to September 1950

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1	4,113.75	35,520	-4,880
Nov. 1	4,112.20	30,640	+1,370
Dec. 1	4,112.65	32,010	+1,230
Calendar year 1949	-	-	-18,370
Jan. 1	4,113.05	33,240	+2,610
Feb. 1	4,113.85	35,850	+6,840
Mar. 1	4,115.75	42,690	+12,190
Apr. 1	4,118.25	54,880	-4,320
May 1	4,117.45	50,560	-3,490
June 1	4,116.75	47,070	+2,440
July 1	4,117.25	49,510	-1,760
Aug. 1	4,116.90	47,750	-10,890
Sept. 1	4,114.15	36,860	-7,970
Oct. 1	4,111.60	28,890	-
Water year 1949-50	-		-6,630

Humboldt River near Rye Patch, Nev.

Location.--Water-stage recorder, lat. 40°27'33", 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.

Drainage area.--13,700 square miles.

Records available.--October 1935 to September 1941, October 1943 to September 1950. 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.--36 years (1899-1909, 1910-16, 1917-22, 1930-32, 1935-41, 1943-50), 203 second-feet.

Extremes.--Maximum daily discharge during year, 605 second-feet July 23; minimum daily, 0.6 second-foot Nov. 22-29 (gage height, 0.92 foot).
1896-1922, 1924-32, 1935-41, 1943-50: 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 (Pitt-Taylor) Reservoirs. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	1.7	0.7	1.0	1.0	1.2	103	427	427	214	297	232
2	55	1.7	.7	1.0	1.1	1.2	124	362	438	232	318	276
3	72	1.6	.7	.8	1.1	1.2	162	290	455	258	389	280
4	116	1.6	.7	1.0	1.1	1.2	190	232	516	321	380	254
5	105	1.6	.7	.8	1.1	1.4	234	271	481	364	362	225
6	105	1.4	.7	.8	1.1	1.2	262	247	466	421	359	212
7	105	1.6	.7	.8	1.0	1.2	274	232	490	441	357	260
8	105	1.6	.7	.8	1.0	1.6	269	232	507	478	297	294
9	105	1.6	.8	.8	1.0	1.6	269	227	504	522	247	292
10	105	1.2	.7	1.0	1.0	1.6	276	232	498	441	265	276
11	105	1.1	.7	1.0	1.0	1.4	290	251	464	359	314	245
12	105	1.1	.7	1.0	1.0	1.6	290	267	383	359	334	210
13	98	1.0	.7	1.0	1.1	1.6	278	276	306	362	280	204
14	96	1.0	.7	1.0	1.1	1.6	258	302	287	378	243	202
15	105	1.0	.8	1.0	1.1	1.7	251	316	258	458	176	210
16	100	1.0	.8	1.0	1.1	18	287	336	236	492	139	196
17	53	1.0	.8	1.0	1.1	40	309	380	260	525	143	174
18	54	1.0	1.0	1.0	1.0	42	318	386	336	537	200	96
19	54	1.0	.8	1.0	1.0	53	367	399	338	543	190	56
20	53	1.0	.8	1.0	1.0	60	380	383	362	580	198	62
21	41	.8	1.0	1.0	1.0	88	383	399	367	593	223	63
22	41	.6	1.0	1.0	1.1	88	391	408	326	593	232	64
23	41	.6	1.0	1.1	1.1	91	413	408	299	605	276	64
24	56	.6	.8	1.0	1.1	91	416	405	167	586	276	64
25	77	.6	.8	1.0	1.1	88	432	410	166	293	269	69
26	88	.6	.8	1.0	1.1	74	449	449	180	209	198	77
27	100	.6	1.0	1.0	1.1	74	449	455	182	292	143	80
28	142	.6	1.0	1.0	1.1	74	446	435	172	292	151	93
29	77	.6	1.0	1.0	-	77	464	410	145	331	190	65
30	18	.7	1.0	1.0	-	103	455	399	188	397	223	20
31	1.8	-	1.0	1.0	-	103	-	372	-	359	225	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,397.8	142	1.8	77.3	4,760
November	32.1	1.7	.6	1.07	64
December	25.3	1.0	.7	.82	50
Calendar year 1949	57,519.3	612	.6	158	114,100
January	29.9	1.1	.8	.96	59
February	29.7	1.1	1.0	1.06	59
March	1,185.3	103	1.2	38.2	2,350
April	9,489	464	103	316	18,820
May	10,598	455	227	342	21,020
June	10,204	516	145	340	20,240
July	12,835	605	209	414	25,460
August	7,894	389	139	255	15,660
September	4,915	294	20	164	9,750
Water year 1949-50	59,635.1	605	.6	163	118,300

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, 6 miles (revised) north of Cross Ranch, and 12 miles (revised) north of Deeth.

Drainage area.--415 square miles.

Records available.--October 1943 to September 1950.

Extremes.--Maximum discharge during year, 454 second-feet May 26 (gage height, 5.50 feet); minimum, 0.1 second-foot Sept. 5.
1943-50: Maximum discharge, 676 second-feet May 9, 1945 (gage height, 5.99 feet); minimum, that of Sept. 5, 1950. 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 period of ice effect, which are fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	3.5	7.9	12	23	53	57	208	368	66	6.0	0.2
2	1.1	3.5	7.9	12	21	*52	83	195	396	68	5.8	.2
3	1.1	3.5	8.2	12	22	53	101	186	374	70	5.8	.2
4	1.2	3.5	8.0	13	24	56	111	176	355	64	6.0	.2
5	1.2	3.7	8.0	14	27	64	99	161	303	53	5.8	.2
6	1.4	3.7	8.0	15	32	72	92	148	261	47	5.5	.2
7	1.5	4.0	8.5	16	31	74	91	144	270	45	5.3	.3
8	1.7	4.4	9.0	17	34	73	115	136	294	44	4.8	.7
9	1.7	4.6	9.5	16	31	76	142	119	303	47	4.4	1.1
10	2.3	6.3	*10	15	31	65	143	99	276	43	4.0	1.0
11	2.4	5.3	8.5	14	25	58	134	89	225	39	3.7	1.5
12	2.1	4.6	8.5	15	29	50	124	85	192	35	3.5	1.7
13	2.0	4.6	8.0	17	21	43	127	91	156	28	3.5	1.5
14	2.0	*4.4	7.5	19	22	48	152	112	131	26	3.3	1.5
15	2.1	4.6	7.0	17	25	50	169	158	125	23	3.1	1.8
16	2.1	5.0	7.0	20	28	46	164	213	118	22	2.9	2.0
17	2.3	6.6	8.5	23	29	44	156	282	121	21	2.6	2.1
18	2.3	6.0	10	27	31	49	179	342	133	20	2.4	2.3
19	4.0	6.0	9.0	30	32	63	221	404	144	18	2.1	2.1
20	3.7	6.6	8.0	32	34	65	230	431	130	16	1.8	2.4
21	3.7	6.6	9.0	32	34	72	243	367	124	15	1.7	2.6
22	3.5	6.6	10	38	34	71	282	340	127	13	1.5	2.7
23	3.3	6.8	11	41	35	64	344	355	131	13	1.1	2.9
24	3.3	6.8	11	*38	38	68	355	390	128	12	.9	3.1
25	3.3	7.1	10	35	39	80	310	416	125	11	.9	2.9
26	3.1	7.3	11	32	45	77	275	441	116	9.4	.7	2.7
27	3.1	7.6	12	29	50	69	248	410	97	8.5	.5	2.9
28	3.3	7.9	11	27	52	63	246	363	80	7.6	.5	2.9
29	3.3	8.2	12	26	-	58	256	344	69	7.3	.4	3.1
30	3.3	7.9	12	26	-	50	238	355	64	6.8	.3	3.3
31	3.3	-	12	25	-	50	-	348	-	6.3	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	76.2	4.0	1.1	2.46	151
November	167.2	8.2	3.5	5.57	332
December	288.0	12	7.0	9.29	571
Calendar year 1949	20,479.0	441	.2	56.1	40,620
January	705	41	12	22.7	1,400
February	879	52	21	31.4	1,740
March	1,876	80	43	60.5	3,720
April	5,487	355	57	183	10,880
May	7,908	441	85	255	15,700
June	5,736	396	64	191	11,380
July	904.9	70	6.3	29.2	1,790
August	91.1	6.0	.3	2.94	181
September	52.3	3.3	.2	1.74	104
Water year 1949-50	24,170.7	441	.2	66.2	47,950

Peak discharge (base, 200 sec.-ft.).--Apr. 24 (1:30 a.m.) 368 sec.-ft.; May 26 (6:40 a.m.) 454 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 4 to Jan. 19, Jan. 25, 26, Jan. 28 to Feb. 5 (no gage-height record Dec. 6-10).

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 1950.

Average discharge.--13 years (1915-16, 1917-22, 1943-50), 44.5 second-feet.

Extremes.--Maximum discharge during year, 588 second-feet July 6; minimum, 1.5 second-feet Feb. 22.
1915-23, 1943-50: Maximum discharge, 588 second-feet July 6, 1951, but may have exceeded 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	4.8	6.8	4.0	*4.2	5.8	9.2	39	401	267	40	11
2	4.8	4.5	7.1	4.0	4.5	6.2	10	38	342	283	40	11
3	4.8	4.5	6.8	b4.0	4.0	6.5	10	36	303	278	38	11
4	4.8	4.5	6.5	b4.0	4.0	6.8	9.6	34	304	242	37	10
5	4.8	4.2	6.5		4.0	7.1	9.6	33	328	223	34	10
6	4.8	4.0	6.2		4.2	7.1	9.6	33	338	244	32	9.8
7	5.2	2.9	6.2		3.7	6.8	10	30	285	236	30	9.8
8	5.2	3.4	5.8		3.2	7.1	11	29	217	199	29	10
9	5.5	4.5	5.8		3.4	7.1	11	29	189	175	27	11
10	5.8	4.8	4.5		3.4	7.1	11	30	177	206	26	10
11	5.8	4.2	4.8	4.5	3.2	6.8	11	35	180	171	24	10
12	5.5	4.5	b5.0		3.2	6.8	11	43	190	148	21	9.7
13	5.8	5.2	5.5		2.9	6.5	12	57	208	133	20	9.5
14	6.2	5.2	*4.2		3.2	7.1	13	78	227	126	20	9.5
15	6.2	*5.2	4.2		3.2	7.1	13	100	259	121	18	7.9
16	6.2	5.2	4.0		3.7	6.8	14	129	273	110	17	9.2
17	6.2	5.2	4.0		3.7	7.1	15	164	264	102	17	9.2
18	6.5		4.2		3.4	6.8	16	175	252	95	16	7.4
19	6.8		4.2	5.2	3.7	7.5	17	160	271	94	16	7.4
20	5.8	5.5	4.5	4.8	4.0	7.1	21	172	304	85	15	7.2
21	5.5		4.2	·5.2	4.0	7.1	27	202	340	79	14	6.9
22	5.5		4.2	6.5	4.0	7.1	33	236	353	73	13	6.0
23	5.2		4.2	5.2	4.2	7.5	36	264	314	70	13	6.1
24	5.2		3.7	3.4	4.2	7.8	38	289	241	64	13	8.2
25	5.2	7.0	4.2	b4.0	4.5	7.5	38	299	211	61	13	7.9
26	5.2		4.5	b5.0	4.5	7.1	42	284	224	57	12	7.7
27	5.2		4.2	5.8	4.8	6.5	47	306	235	54	13	6.4
28	4.8		4.2	5.5	5.5	6.8	44	329	245	58	12	5.7
29	4.8	7.5	4.0	5.2	-	6.8	41	346	263	52	12	5.5
30	4.8	7.5	4.0	4.8	-	7.5	39	410	269	47	12	7.2
31	4.8	-	4.0	4.8	-	8.2	-	436	-	42	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	167.7	6.8	4.8	5.41	333
November	161.3	7.5	2.9	5.38	320
December	152.2	7.1	3.7	4.91	302
Calendar year 1949	14,103.8	279	2.9	38.6	27,980
January	144.4	6.5	3.4	4.66	286
February	108.5	5.5	2.9	3.88	215
March	217.1	8.2	5.8	7.00	431
April	629.0	47	9.2	21.0	1,250
May	4,845	436	29	156	9,610
June	8,007	401	177	267	15,880
July	4,195	283	42	135	8,320
August	656	40	12	21.2	1,300
September	258.2	11	5.5	8.61	512
Water year 1949-50	19,541.4	436	2.9	53.5	38,760

Peak discharge (base, 310 sec.-ft.).--May 30 (6:30 p.m.) 571 sec.-ft.; July 6 (7:40 p.m.) 588 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Nov. 18-28, Jan. 5-18; discharge computed on basis of discharge measurements, weather records, and records for nearby streams.

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 1950.

Average discharge.--12 years (1914-19, 1943-50), 65.1 second-feet.

Extremes.--Maximum discharge during year, 263 second-feet Apr. 2 (gage height, 3.46 feet); minimum, 3.0 second-feet Sept. 2, 3, 5, 6.
1913-21, 1943-50: 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 or no gage-height record, which are poor. Many diversions above and below station.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	11	15		32	94	176	188	151	40	16	3.5
2	7.0	10	16		30	*83	237	182	165	36	16	3.2
3	7.3	10	16		30	81	252	194	176	32	15	3.2
4	7.3	11	16		33	86	209	188	174	30	15	3.2
5	7.0	11	16		37	95	173	165	174	26	15	3.2
6	7.3	11	15		40	105	173	157	160	23	14	3.2
7	7.6	11	16		45	82	196	157	144	23	14	3.8
8	8.8	11	16	25	50	72	210	156	147	23	14	4.5
9	8.8	12	16		48	70	216	148	179	24	13	4.5
10	8.5	13	*15		45	63	205	135	196	28	13	5.2
11	8.5	14	15		43	57	216	124	163	28	12	7.0
12	8.5	14	14		45	49	241	110	129	34	12	6.4
13	8.5	14	14		42	50	241	102	109	33	11	5.8
14	8.5	*14	13		40	46	235	98	95	31	11	6.1
15	8.5	14	13		45	50	225	98	91	27	9.9	6.7
16	8.5	14	14		50	48	216	108	87	23	8.8	6.7
17	8.5	14	15		57	51	216	120	79	20	8.5	7.0
18	8.8	14	17		65	69	218	126	75	19	7.6	7.0
19	8.8	14	16		68	78	222	138	72	18	6.7	7.3
20	9.6	14	15		84	100	225	152	72	18	5.8	6.7
21	9.9	14	17		84	109	227	148	73	16	5.5	6.4
22	9.9	14	19		77	108	227	140	73	16	5.2	6.4
23	9.9	14	20		77	91	237	140	87	16	5.0	7.0
24	10	14	19	33	73	89	239	142	126	16	4.8	7.0
25	9.9	14	18	(*)	90	106	218	156	94	16	4.2	7.3
26	9.9	14	19		124	119	207	173	82	16	4.0	7.0
27	9.9	14	20		144	114	194	189	75	16	4.0	7.0
28	9.6	14	19		117	100	191	181	65	16	3.8	7.3
29	9.6	14	20		-	88	194	160	55	16	3.8	7.3
30	9.6	14	21		-	87	198	154	46	17	3.5	7.6
31	11	-	22		-	128	-	150	-	17	3.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	272.5	11	7.0	8.79	540
November	391	14	10	13.0	776
December	517	22	13	16.7	1,030
Calendar year 1949	24,112.5	508	3.2	66.1	47,830
January	903	-	-	29.1	1,790
February	1,715	144	30	61.2	3,400
March	2,568	128	46	82.8	5,090
April	6,434	252	173	214	12,760
May	4,579	194	98	148	9,080
June	3,404	196	46	113	6,750
July	714	40	16	23.0	1,420
August	285.6	16	3.5	9.21	566
September	174.5	7.6	3.2	5.82	346
Water year 1949-50	21,957.6	252	3.2	60.2	43,550

Peak discharge (base, 170 sec.-ft.).--Apr. 2 (2 p.m.) 263 sec.-ft.; June 10 (12:15 p.m.) 200 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 4 to Feb. 17 (no gage-height record Dec. 20 to Jan. 22, Jan. 29, Feb. 2, 3; discharge computed on basis of 2 discharge measurements, weather records, and records for Marys River below Hot Springs Creek, near Deeth).

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 1950.

Extremes.--Maximum discharge during year, 762 second-feet May 30 (gage height, 3.45 feet) minimum, 4.7 second-feet Oct. 4.
1945-50: Maximum discharge, 815 second-feet June 23, 1945 (gage height, 3.70 feet); minimum, 3.7 second-feet Nov. 18, 1948.

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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	6.6	8.4	6.6	b8.0	17	47	86	607	275	33	7.5
2	5.3	6.3	9.2	b6.3	b7.0	18	54	81	528	278	32	7.0
3	5.3	6.3	8.8	b6.0	b8.0	19	52	76	482	275	32	6.3
4	5.0	6.3	8.8	b6.0	b9.0	21	47	70	486	245	28	6.3
5	5.0	6.0	8.8	7.5	9.2	22	43	67	490	222	25	6.6
6	5.3	6.3	8.4	7.5	9.2	*21	42	65	490	216	23	6.6
7	6.3	6.3	8.4	7.5	8.8	22	42	62	435	219	21	7.5
8	6.6	7.0	7.9	7.0	b8.0	20	48	62	346	195	20	9.2
9	7.0	7.5	6.6	6.6	b8.0	19	47	62	300	177	19	10
10	7.9	7.9	5.6	6.3	b8.0	18	44	70	269	195	17	9.2
11	7.5	7.5	b7.0	6.3	8.8	17	47	86	257	174	17	9.2
12	8.8	7.9	*b8.0	b6.0	9.2	25	51	108	263	151	16	8.8
13	11	7.9	8.4	6.3	9.2	30	56	129	275	135	15	7.9
14	7.9	8.4	b7.5	6.3	8.8	17	61	167	297	127	15	7.5
15	7.5	*8.4	6.6	b6.3	9.2	16	62	216	326	117	14	7.5
16	7.9	8.8	6.3	7.0	10	15	72	269	342	106	14	7.5
17	7.9	8.8	6.6	9.2	10	17	88	320	336	97	13	8.8
18	7.5	10	7.0	12	11	15	97	320	320	90	12	8.8
19	7.5	11	b7.0	12	11	17	99	307	339	83	12	8.4
20	7.5	11	b7.0	12	12	17	108	313	376	75	11	8.4
21	7.5	11	7.5	13	12	17	125	352	400	65	11	7.9
22	7.5	10	7.5	15	12	18	137	404	407	59	11	7.5
23	7.5	11	7.5	15	12	17	131	439	386	58	10	7.0
24	7.5	11	7.0	b13	13	21	119	453	323	54	9.7	6.6
25	7.5	11	b7.0	b12	14	19	111	464	272	52	9.7	6.3
26	7.0	11	7.9	b12	15	21	108	453	263	49	9.7	6.3
27	7.0	11	7.5	12	17	21	109	464	266	46	9.2	6.3
28	6.6	12	7.5	11	17	18	104	482	275	47	9.2	6.3
29	7.0	11	7.0	b10	-	21	93	505	285	43	8.4	6.3
30	6.6	11	6.6	b9.0	-	25	86	594	285	37	7.9	6.6
31	6.6	-	6.6	*b9.0	-	37	-	636	-	34	7.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	218.3	11	5.0	7.04	433
November	266.2	12	6.0	8.87	528
December	231.9	9.2	5.6	7.48	460
Calendar year 1949	24,671.5	464	4.4	67.6	48,940
January	281.7	15	6.0	9.09	559
February	294.4	17	7.0	10.5	584
March	618	37	15	19.9	1,230
April	2,330	137	42	77.7	4,620
May	8,182	636	62	264	16,230
June	10,726	607	257	358	21,270
July	3,996	278	34	129	7,930
August	492.3	33	7.5	15.9	976
September	226.1	10	6.3	7.54	448
Water year 1949-50	27,862.9	636	5.0	76.3	55,270

Peak discharge (base, 450 sec.-ft.).--May 30 (8:20 p.m.) 762 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

South Fork Humboldt River above Dixie Creek, near Elko, Nev.

Location.--Water-stage recorder, lat. 40°41', long. 115°49', in SW¼ sec. 5, T. 32 N., R. 55 E., 2 miles upstream from Dixie Creek and 10½ miles southwest of Elko.

Records available.--December 1948 to September 1950.

Extremes.--1948-49: Maximum discharge during period December to September, 807 second-feet May 17 (gage height, 4.56 feet); minimum, 2.5 second-feet Sept. 6.
1949-50: Maximum discharge during water year, 835 second-feet June 2 (gage height, 4.60 feet); minimum, 4.3 second-feet Sept. 4.

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

Discharge, in second-feet, 1948-50

1948-49

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	20		22	117	280	638	120	10	4.8
2			-			24	120	258	576	110	10	4.3
3			-			25	120	244	469	113	10	4.3
4			(*)			27	124	234	413	104	11	4.1
5						30	126	203	362	98	11	3.4
6						33	136	175	332	86	10	3.2
7						36	151	167	315	79	11	4.3
8						40	189	164	349	74	10	4.5
9						*45	222	183	380	68	9.8	4.1
10						50	206	212	428	62	9.0	3.6
11			25			55	198	238	469	60	7.7	3.0
12					15	50	203	266	496	58	7.7	3.4
13				(*)		50	206	284	480	54	7.7	3.6
14						60	212	336	458	f45	7.1	4.8
15						70	228	390	423	f40	6.1	5.1
16				15		85	228	553	433	f36	6.1	4.8
17						105	238	779	428	34	5.8	5.1
18						130	266	731	353	33	5.5	5.5
19						172	292	613	319	31	5.1	6.1
20						195	319	638	288	29	5.1	6.4
21						200	328	613	248	28	4.5	6.4
22						212	328	547	234	25	4.5	6.4
23						178	332	480	222	22	6.1	6.4
24					20	170	362	438	186	20	8.1	5.8
25					20	148	376	448	183	17	7.1	4.8
26			20		20	141	371	501	180	15	6.4	4.8
27					20	138	353	582	178	14	6.4	5.5
28					20	136	340	607	156	13	6.4	8.6
29					-	110	336	638	138	12	6.1	9.4
30					-	110	311	638	126	11	5.8	9.4
31					-	113	-	620	-	10	5.8	-

Peak discharge (base, 400 sec.-ft.).--May 17 (5 p.m.) 807 sec.-ft.; May 29 (4 p.m.) 671 sec.-ft.; June 12 (1 p.m.) 524 sec.-ft.

* Winter discharge measurement made on this day.

f Discharge computed on basis of partly estimated gage-height record.

Note.--Stage-discharge relation affected by ice Dec. 4 to Mar. 18. Doubtful gage-height record July 17 to Aug. 2; discharge computed on basis of 1 discharge measurement and records for Huntington Creek near Lee.

Discharge, in second-feet, of South Fork Humboldt River above Dixie Creek, near Elko, Nev., 1948-50--*Continued*

1949-50

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	16	26	33	40	75	104	172	758	262	38	7.1
2	9.0	16	27	30	40	72	115	178	772	258	35	5.8
3	9.0	16	26	30	45	70	122	183	704	269	33	5.5
4	9.4	17	27	30	50	70	124	178	632	262	29	4.8
5	9.8	17	34	30	60	70	122	167	601	248	26	5.1
6	10	17	30	30	65	68	117	159	613	244	23	5.8
7	11	18	34	35	70	62	115	167	704	258	22	6.7
8	13	21	30	40	70	66	122	170	717	280	20	8.1
9	14	21	31	40	70	64	146	154	601	234	19	7.4
10	19	28	30	40	70	62	154	136	458	228	19	7.7
11	20	30	27	35	70	62	161	122	390	241	18	10
12	17	26	26	30	70	60	159	120	353	200	19	12
13	15	25	*25	30	80	58	154	122	319	180	18	12
14	9.8	24	27	30	90	66	161	144	332	161	16	12
15	9.8	25	29	30	90	67	180	172	340	141	15	9.0
16	11	26	31	40	90	*64	186	222	362	126	15	10
17	12	*26	33	50	90	66	195	284	390	113	15	12
18	12	26	40	50	90	66	195	358	385	106	15	13
19	13	26	35	50	90	67	200	358	376	98	14	13
20	15	26	30	50	94	75	198	353	399	94	13	13
21	16	25	35	50	83	74	212	367	433	83	12	12
22	16	26	35	50	75	70	228	408	458	77	12	12
23	15	30	35	50	75	74	238	474	448	72	11	11
24	15	29	35	45	75	79	234	529	408	66	11	11
25	15	27	30	45	79	100	225	570	332	55	11	11
26	15	26	35	*45	81	106	212	558	288	50	11	10
27	16	26	35	47	81	102	206	570	269	47	10	9.4
28	16	26	35	50	79	98	203	564	258	51	9.0	9.4
29	17	25	35	45	-	90	200	589	255	48	9.0	11
30	16	26	35	40	-	88	180	658	262	45	8.6	11
31	16	-	35	40	-	92	-	738	-	41	8.1	-

Peak discharge (base, 400 sec.-ft.).--June 2 (4 p.m.) 835 sec.-ft.; June 22 (11 a.m.) 490 sec.-ft.
* Winter discharge measurement made on this day.
Note.--*Stage-discharge relation affected by ice Dec. 10-16, Dec. 19 to Feb. 19.*

Monthly discharge, in second-feet, 1948-50

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December 4-31, 1948	645	-	-	23.0	1,280
Calendar year	-	-	-	-	-
January 1949	470	-	-	15.2	932
February	445	-	-	15.9	883
March	2,960	212	22	95.5	5,870
April	7,338	376	117	245	14,550
May	13,080	779	164	421	25,900
June	10,260	638	126	342	20,350
July	1,521	120	10	49.1	3,020
August	232.9	11	4.5	7.51	462
September	155.9	9.4	3.0	5.20	309
The period	-	-	-	-	73,560
October 1949	420.8	20	9.0	13.6	835
November	713	30	16	23.8	1,410
December	978	40	25	31.5	1,940
Calendar year 1949	38,554.6	779	3.0	105.6	76,460
January 1950	1,240	50	30	40.0	2,460
February	2,062	94	40	73.6	4,090
March	2,303	106	58	74.3	4,570
April	5,168	238	104	172	10,250
May	9,944	738	120	321	19,720
June	13,617	772	255	454	27,010
July	4,638	280	41	150	9,200
August	534.7	38	8.1	17.2	1,060
September	287.8	13	4.8	9.59	571
Water year 1949-50	41,906.3	772	4.8	115	83,120

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 1950.

Average discharge.--42 years (1896-1903, 1904-9, 1910-18, 1923-26, 1927-32, 1936-50), 130 second-feet.

Extremes.--Maximum discharge during year, 848 second-feet May 31 (gage height, 3.97 feet); minimum, 2.0 second-feet Sept. 5.
1896-1922, 1923-32, 1936-50: 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 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.

Revisions (water years).--W 1090: 1932.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	13	21	18	33	77	146	197	802	251	37	4.2
2	4.6	13	21	18	30	74	152	200	784	242	35	3.2
3	4.2	14	23	17	30	70	155	204	720	251	33	2.8
4	4.6	14	22	16	32	70	146	202	652	242	28	2.8
5	4.6	14	22	16	37	70	142	192	612	215	24	2.3
6	5.4	14	23	17	40	70	138	182	612	200	21	3.2
7	6.2	15	23	18	40	63	138	189	692	210	21	3.2
8	7.4	17	22	19	37	*68	150	197	716	237	19	4.2
9	8.8	17	22	19	35	63	175	180	612	194	18	5.0
10	14	23	21	18	35	62	180	161	464	184	17	3.8
11	15	25	19	17	38	60	194	144	385	212	15	6.2
12	12	21	18	16	40	52	189	142	341	170	17	8.8
13	9.9	20	*18	16	45	52	180	140	304	150	16	8.8
14	6.6	19	20	17	49	64	189	157	313	138	14	7.8
15	6.6	18	19	17	50	68	204	177	320	126	12	6.6
16	7.4	19	18	19	49	63	215	226	341	113	12	6.2
17	8.8	*21	18	21	49	62	217	288	366	104	11	8.8
18	8.8	21	19	25	50	66	223	370	359	96	11	9.4
19	9.9	21	19	30	55	68	226	370	351	93	9.9	8.8
20	11	21	19	35	60	78	226	362	377	89	8.8	8.8
21	14	21	20	40	70	75	240	377	412	80	8.3	8.3
22	14	23	20	45	80	75	260	416	448	75	7.8	8.3
23	12	24	20	50	72	78	272	484	440	70	7.8	7.8
24	12	25	19	55	74	85	263	544	397	63	7.4	7.8
25	12	22	18	55	74	105	251	592	324	55	7.0	8.3
26	12	21	18	52	78	113	240	584	281	48	7.0	7.4
27	12	21	19	*50	81	109	234	596	260	46	6.6	7.0
28	12	21	20	45	81	104	237	588	254	50	5.8	7.0
29	14	21	19	40	-	95	226	608	251	48	5.4	7.8
30	13	21	18	35	-	102	204	664	251	43	5.0	8.8
31	13	-	18	35	-	126	-	764	-	39	5.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	300	15	4.2	9.68	595
November	580	25	13	19.3	1,150
December	616	23	18	19.9	1,220
Calendar year 1949	39,356.8	870	.6	108	78,060
January	891	55	16	28.7	1,770
February	1,442	81	30	51.5	2,860
March	2,387	126	52	77.0	4,730
April	6,012	272	138	200	11,920
May	10,497	•764	140	339	20,820
June	13,441	802	251	448	26,660
July	4,134	251	39	133	8,200
August	452.8	37	5.0	14.6	898
September	193.4	9.4	2.3	6.45	384
Water year 1949-50	40,946.2	802	2.3	112	81,210

Peak discharge (base, 410 sec.-ft.).-- May 31 (8 p.m.) 848 sec.-ft.; June 23 (1 p.m.) 480 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 4 to Feb. 22 (no gage-height record Jan. 26, 27, Jan. 29 to Feb. 15; discharge computed on basis of 1 discharge measurement, weather records, and records for station near Lee.

Huntington Creek near Lee, Nev.

Location.--Water-stage recorder, lat. 40°35', long. 115°43', in NW¼ sec. 12, T. 31 N., R. 55 E., 7 miles west of Lee.

Records available.--December 1948 to September 1950.

Extremes.--1948-49: Maximum discharge during period December to September, 652 second-feet May 16 (gage height, 4.52 feet), from rating curve extended above 230 second-feet; minimum, 1.0 second-foot Aug. 10.
1949-50: Maximum discharge during year, 242 second-feet June 8 (gage height, 3.47 feet); minimum, 2.0 second-feet Sept. 1.

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

Discharge, in second-feet, 1948-50

1948-49

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						11	73	119	211	8.4	3.9	2.0
2						12	73	109	205	7.6	4.5	2.0
3			(*)			13	71	92	160	8.4	3.9	2.0
4						14	70	82	127	9.2	3.9	2.0
5						15	70	73	103	10	3.9	1.8
6						16	73	61	92	8.4	2.6	2.0
7						17	76	55	80	7.6	3.0	2.0
8						18	103	49	73	6.8	2.6	2.2
9						20	122	45	68	6.4	2.0	2.2
10						25	101	51	66	6.0	1.6	2.2
11						*28	90	69	61	6.4	1.6	2.4
12						28	91	76	57	7.2	1.8	2.6
13						27	98	67	55	7.2	2.0	2.8
14				(*)		28	106	60	61	7.2	2.0	2.8
15						31	108	84	45	7.2	2.0	2.8
16			9	8	10	41	108	266	39	6.8	2.2	2.4
17						51	113	296	31	6.4	2.2	2.4
18						60	123	288	26	6.0	2.4	2.8
19						76	140	235	25	5.4	2.2	3.0
20						98	162	223	26	4.8	2.4	3.3
21						127	169	228	27	4.5	2.2	3.6
22						130	162	194	22	4.5	2.4	3.6
23						118	162	158	18	4.2	4.2	3.0
24						108	178	128	16	3.9	2.4	3.3
25						92	186	117	14	3.9	1.6	3.3
26						89	188	110	12	3.9	2.4	3.0
27						90	167	120	12	3.6	2.4	3.9
28						89	152	134	10	3.6	2.2	6.8
29					-	73	138	144	11	3.6	2.4	4.5
30					-	79	130	162	9.6	3.9	2.4	4.2
31					-	74	-	196	-	3.6	2.2	-

Peak discharge (base, 200 sec.-ft.).--May 16 (3 p.m.) 652 sec.-ft.; June 1 (6 p.m.) 220 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 3 to Mar. 10 (no gage-height record Dec. 1, 2, Jan. 6-14, Jan. 22 to Feb. 21; discharge computed on basis of 2 discharge measurements, weather records, and records for South Fork Humboldt River above Dixie Creek, near Elko).

Discharge, in second-feet, of Huntington Creek near Lee, Nev., 1948-50--Continued
1949-50

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	7.2	12	10	12	39	48	79	160	20	6.0	2.2
2	4.2	7.2	11	9	11	37	52	82	169	19	5.7	2.2
3	3.9	7.6	10	8	12	36	55	79	160	22	6.0	2.2
4	3.9	7.6	10	9	15	36	57	81	144	20	5.1	2.4
5	3.6	7.6	11	8	20	36	56	78	126	18	4.5	2.4
6	3.9	8.0	10	10	20	*34	56	71	115	17	4.5	2.6
7	4.2	8.4	10	12	20	34	54	75	142	17	4.2	2.8
8	5.4	9.2	11	12	20	32	57	76	223	20	3.9	3.9
9	5.4	8.4	11	12	20	32	71	66	182	18	3.3	4.2
10	8.4	12	10	12	20	32	78	56	124	17	3.6	4.2
11	6.0	12	9	10	20	32	80	46	96	22	4.2	4.2
12	5.1	11	*9	8	20	31	76	41	74	20	4.2	4.2
13	6.8	10	9	10	25	28	74	41	64	17	3.9	3.9
14	5.7	9.6	9	10	30	32	79	41	57	16	3.9	3.9
15	5.4	*9.6	9.5	8	35	34	87	46	51	14	3.6	4.2
16	5.4	10	9	12	40	31	88	54	46	12	3.9	4.2
17	5.1	10	10	15	40	32	87	73	46	11	3.6	4.8
18	5.1	10	11	15	40	32	86	93	44	11	3.6	4.8
19	5.4	10	10	15	40	34	87	101	46	12	3.3	4.5
20	6.8	10	9	15	40	36	88	103	44	10	3.0	4.5
21	7.6	10	10	15	41	35	91	101	39	10	3.0	4.5
22	6.8	11	11	15	39	36	96	107	44	10	3.3	4.2
23	6.0	9.6	11	14	39	36	99	122	47	10	3.0	4.2
24	6.0	9.6	12	13	40	38	104	158	45	8.8	2.6	4.2
25	6.4	9.6	10	12	41	49	101	156	38	9.2	2.8	4.2
26	6.8	9.6	12	15	41	54	90	145	33	8.8	2.8	4.2
27	7.2	9.6	12	15	41	51	87	140	29	8.8	2.6	3.9
28	6.8	10	12	14	39	49	91	139	26	9.2	2.4	4.2
29	6.8	10	12	12	-	44	91	140	24	7.2	2.4	4.2
30	6.8	10	12	13	-	41	85	145	22	6.4	2.4	4.5
31	6.8	-	11	*14	-	44	-	142	-	6.4	2.2	-

Peak discharge (base, 200 sec.-ft.).--June 8 (3:30 p.m.) 242 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 2 to Feb. 20.

Monthly discharge, in second-feet, 1948-50

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December 1948	279	-	-	9	553
Calendar year	-	-	-	-	-
January 1949	248	-	-	8	492
February	280	-	-	10	555
March	1,698	130	11	54.8	3,370
April	3,603	188	70	120	7,150
May	4,091	296	45	132	8,110
June	1,752.6	211	9.6	58.4	3,480
July	186.6	10	3.6	6.02	370
August	79.5	4.5	1.6	2.56	158
September	86.9	6.8	1.8	2.90	172
Water year 1948-49	-		-	-	24,410
October 1949	178.5	8.4	3.6	5.76	354
November	284.4	12	7.2	9.48	564
December	325.5	12	9	10.5	646
Calendar year 1949	12,814.0	296	1.6	35.1	25,420
January 1950	372	15	8	12.0	738
February	821	41	11	29.3	1,630
March	1,147	54	28	37.0	2,280
April	2,351	104	48	78.4	4,660
May	2,877	158	41	92.8	5,710
June	2,460	223	22	82.0	4,880
July	427.8	22	6.4	13.8	849
August	113.5	6.0	2.2	3.66	225
September	114.6	4.8	2.2	3.82	227
Water year 1949-50	11,472.3	223	2.2	31.4	22,760

Pine Creek near Palisade, Nev.

Location.--Water-stage recorder, lat. 40°35'30", long. 116°10'30", in SW¼ sec. 1, T. 31 N., R. 51 E., 1 mile upstream from mouth and 1½ miles southeast of Palisade.

Records available.--November 1902 to December 1904 (gage heights only), January 1912 to September 1914, January 1946 to September 1950.

Extremes.--Maximum discharge during year, 53 second-feet Apr. 18 (gage height, 1.84 feet); minimum daily, 0.1 second-foot Oct. 1, 2, July 16-23.
1912-14, 1946-50: Maximum discharge, 785 second-feet Jan. 25, 26, 1914; minimum, 0.1 second-foot on several days during 1947, 1948, 1949, 1950.

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

Revisions.--W 1120: 1936 (calendar year mean).

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	10	11			16	20	16	3.5	0.5	0.3	0.2
2	.1	10	11			15	19	16	4.5	.4	.3	.2
3	.2	10	10		11	15	18	18	4.5	.4	.4	.2
4	1.7	11	9.6			15	15	18	4.2	1.2	.4	.2
5	3.3	11	9.1		12	15	15	18	3.5	2.2	.4	.2
6	3.5	11	11		12	14	14	20	3.3	5.0	.4	.2
7	4.0	12	9.6		13	13	12	25	12	5.9	.4	.2
8	4.2	13			13	15	12	29	12	6.9	.3	.2
9	4.5	13		10	14	14	18	30	12	5.9	.4	.2
10	6.9	16	9		15	14	21	27	12	5.2	.4	.2
11	6.2	13			17	14	19	21	7.9	5.0	.4	.2
12	6.2	12			15	13	21	14	6.6	3.8	.4	.2
13	5.0	11			14	13	26	10	6.2	3.3	.4	.2
14	4.7	11			18	18	38	8.6	2.8	2.8	.4	.2
15	5.5	11	7.6		21	18	45	5.9	.8	.5	.4	.2
16	5.9	11	8		29	16	52	4.7	.8	.1	.4	.2
17	6.2	10	8		28	16	51	4.7	.8	.1	.4	.2
18	6.2	11	8.6		24	15	45	4.5	.8	.1	.4	.2
19	6.6	11	8.6		22	18	38	4.7	.8	.1	.3	.2
20	6.9	11			22	18	34	4.5	.7	.1	.3	.2
21	8.3	10			18	14	34	4.2	.6	.1	.4	1.3
22	8.6	10	(*)		17	15	24	4.0	.6	.1	.4	2.8
23	9.1	11			18	17	20	4.7	.6	.1	.4	2.8
24	8.6	11		11	18	19	16	7.2	.6	.2	.4	2.8
25	8.6	*11	10		18	24	21	5.2	.6	.2	.4	3.0
26	9.1	10			18	25	20	4.0	.6	.2	.4	3.3
27	9.1	10			18	24	20	3.5	.6	.2	.4	3.3
28	9.1	11			*17	21	20	3.8	.6	.2	.3	2.5
29	9.6	10			-	18	19	3.8	.6	.2	.2	.5
30	10	11		(*)	-	19	16	3.8	.5	.2	.2	.4
31	10	-			-	22	-	3.3	-	.2	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	188.0	10	0.1	6.06	373
November	334	16	10	11.1	662
December	295.1	-	-	9.52	585
Calendar year 1949	4,552.4	110	.1	12.5	9,030
January	326	-	-	10.5	647
February	475	29	-	17.0	942
March	523	25	13	16.9	1,040
April	743	52	12	24.8	1,470
May	347.1	30	3.3	11.2	688
June	105.6	12	.5	3.52	209
July	51.4	6.9	.1	1.66	102
August	11.2	.4	.2	.36	22
September	26.7	3.3	.2	.89	53
Water year 1949-50	3,426.1	52	.1	9.39	6,790

Peak discharge (base, 50 sec.-ft.).--Apr. 18 (5 a.m.) 53 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 8-14, 16, 17, Dec. 20 to Feb. 10.

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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.

Records available.--March 1918 to September 1923, 1924, 1925, 1927-29 (fragmentary), January 1946 to September 1950.

Extremes.--Maximum discharge during year, 326 second-feet Mar. 31 (gage height, 2.74 feet); no flow Oct. 1, July 23-26, July 29 to Aug. 13, Aug. 16 to Sept. 7.
1918-25, 1927-29, 1946-50: Maximum discharge, 2,240 second-feet Feb. 11, 1921; no flow at times in most years.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Several irrigation diversions in valleys upstream. 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.

Rating table, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge in second-feet)

0.2	0	0.8	6.5	1.4	41
.3	.1	.9	9.8	1.6	64
.4	.4	1.0	14	1.8	94
.5	.9	1.1	18	2.0	131
.6	2.0	1.2	24	2.2	175
.7	3.9	1.3	32	2.5	255

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.7	1.1	0.8	4	*70	214	74	29	4.2	0	0
2	.3	.8	1.1	.8	3.5	75	182	80	29	3.9	0	0
3	.4	.8	.9	.7	4	80	170	75	25	3.5	0	0
4	.4	.8	.9	.7	6	90	142	75	27	2.4	0	0
5	.4	.8	.8	.7	13	100	101	78	26	1.9	0	0
6	.5	.8	.8	.8	14	110	89	68	19	1.6	0	0
7	.8	1.0	.9	.8	20	80	92	65	19	1.4	0	0
8	1.1	1.3	.6	.9	*26	70	98	59	26	1.2	0	.3
9	1.2	1.3	.6	1	24	55	101	60	30	1.0	0	1.1
10	1.4	1.4	.8	1	21	40	89	60	20	1.6	0	.6
11	1.3	1.6	.8	1.1	18	35	80	58	26	1.6	0	.6
12	.9	1.4	.4	1.1	16	25	71	56	24	.8	0	.4
13	.7	1.3	.6	1.1	18	27	74	60	21	.6	0	.4
14	.6	1.4	.5	1.2	20	30	94	64	18	.6	.1	.3
15	.5	1.2	.6	1.2	24	28	112	74	16	.3	.1	.3
16	.6	1.0	*.8	1.4	23	32	103	89	15	.2	0	.3
17	.5	1.0	.9	2	21	64	112	103	14	.2	0	.3
18	.4	1.0	1.1	*4.6	26	60	107	98	13	.2	0	.5
19	.5	1.0	1.1	6.5	35	130	116	107	11	.1	0	.5
20	.8	.9	.9	19	32	100	112	86	9.8	.1	0	.4
21	.9	1.0	.8	14	28	59	110	75	9.8	.1	0	.4
22	.8	.8	.9	15	24	53	118	71	11	.1	0	.3
23	.8	.9	1	64	28	51	127	71	13	0	0	.3
24	.8	1.1	.9	71	40	58	118	70	16	0	0	.3
25	.8	1.1	.8	13	55	135	99	67	11	0	0	.3
26	.8	1.6	.7	10	70	142	89	59	8.5	0	0	.3
27	.8	1.6	.8	14	75	118	91	45	8.2	.1	0	.3
28	.7	1.3	.8	11	70	94	99	41	7.2	.1	0	.3
29	.8	1.3	.9	6.2	-	84	98	34	6.2	0	0	.3
30	.7	1.3	.9	4.5	-	110	91	34	4.2	0	0	.4
31	.8	-	.9	4	-	228	-	30	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	22.0	1.4	0	0.71	44
November	33.5	1.6	.7	1.12	66
December	25.6	1.1	.4	.83	51
Calendar year 1949	5,764.4	187	0	15.8	11,420
January	274.1	71	.7	8.84	544
February	758.5	75	3.5	27.1	1,500
March	2,433	228	25	78.5	4,830
April	3,299	214	71	110	6,540
May	2,086	107	30	67.3	4,140
June	512.9	30	4.2	17.1	1,020
July	27.8	4.2	0	.90	55
August	.2	.1	0	.01	.4
September	9.2	1.1	0	.31	18
Water year 1949-50	9,481.8	228	0	26.0	18,810

Peak discharge (base, 75 sec.-ft.).--Jan. 23 (5 p.m.) 148 sec.-ft.; Feb. 27 (time and discharge unknown); Mar. 5 or 6 (time and discharge unknown); Mar. 19 or 20 (time and discharge unknown); Mar. 25 (9 a.m.) 164 sec.-ft.; Mar. 31 (about 9 a.m.) 326 sec.-ft.; Apr. 23 (5 to 8 a.m.) 131 sec.-ft.; May 19 (7 a.m.) 114 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 20 to Jan. 18, Jan. 30 to Feb. 4, Feb. 7 - 23. No gage-height record Feb. 24 to Mar. 20 (stage-discharge relation affected by ice during part of period); discharge computed on basis of one discharge measurement, weather records and records for nearby streams.

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 Fork and 25 miles east of Paradise Valley.
Records available.--October 1941 to November 1950 (discontinued).
Extremes.--1949-50: Maximum discharge during water year, 132 second-feet Apr. 4 (gage height, 4.36 feet); no flow for many days in August and September.
1950: Maximum discharge during period October to November, 2.7 second-feet Nov. 13 (gage height, 0.61 foot); no flow Oct. 1-25.
1942-50: Maximum discharge, 4,000 second-feet about Jan. 22, 1943 (gage height, 14.4 feet, from floodmarks), by slope-area method; no flow at times in most years.
Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Several small diversions above and below station for irrigation.

Discharge, in second-feet, 1949-50

1949-50

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	2.3	3.2	3.7	6.8	22	80	80	58	8.7	0.9	0
2	1.3	2.6	3.2	3.8	6.8	24	109	86	54	7.9	.8	0
3	1.4	2.1	3.2	3.9	6.8	24	128	85	49	7.4	.8	0
4	1.4	2.3	2.6	4.0	6.9	30	118	80	46	7.0	.8	.1
5	1.3	2.3	2.7	4.0	7.2	39	97	71	43	5.9	.9	.2
6	1.3	2.6	2.7	3.9	7.5	42	87	66	38	5.5	1.4	.2
7	1.6	2.6	3.2	3.9	7.8	32	86	62	39	4.5	1.3	.3
8	1.6	2.7	3.4	3.8	8.4	30	81	59	39	4.2	1.1	.5
9	1.6	3.0	2.7	3.8	8.8	31	82	56	38	4.5	1.1	.4
10	2.0	3.5	2.9	3.8	9.2	26	70	56	34	4.8	.7	.5
11	2.0	3.8	2.6	3.7	9.5	25	61	53	30	5.1	.6	.5
12	2.4	3.9	2.6	3.7	9.8	19	59	55	27	5.0	.5	.6
13	2.6	3.7	2.6	3.7	9.8	16	63	57	28	5.1	.4	.8
14	2.4	3.7	2.6	3.6	10	20	79	63	28	4.4	.4	.9
15	2.4	3.1	2.6	3.6	11	20	78	72	26	3.9	.5	.8
16	2.1	3.5	2.6	*3.6	15	18	76	85	23	3.8	.4	.8
17	2.1	3.2	2.6	4.1	16	18	78	91	21	3.1	.2	.8
18	2.0	3.0	2.8	5.0	17	22	81	95	20	3.1	.2	1.0
19	2.1	3.0	3.0	5.8	18	33	92	100	19	3.0	0	.9
20	2.3	3.0	*3.3	6.6	*18	50	94	94	17	2.6	0	.9
21	2.3	2.9	3.3	7.6	18	56	97	88	15	2.5	0	1.0
22	2.1	*3.0	3.4	8.4	17	57	110	84	15	2.5	0	1.1
23	2.4	2.9	3.5	9.2	16	50	119	82	14	2.4	0	.6
24	2.6	3.2	3.6	10	16	45	112	83	15	2.1	0	.2
25	2.4	3.4	3.7	9.8	17	56	100	85	17	1.9	0	0
26	2.3	3.2	3.8	8.4	19	63	92	83	17	1.9	0	0
27	2.3	3.1	3.9	7.5	23	53	87	78	15	1.5	0	0
28	2.3	3.0	4.0	6.9	23	42	91	70	14	1.4	0	0
29	2.1	3.0	3.9	6.8	-	35	90	66	12	1.2	0	0
30	2.1	3.1	3.9	6.8	-	34	85	63	11	1.1	0	0
31	2.3	-	3.8	6.8	-	49	-	60	-	1.0	0	-

Peak discharge (base, 80 sec.-ft.).--Apr. 4 (3:30 a.m.) 132 sec.-ft.; Apr. 23 (9:30 a.m.) 124 sec.-ft.; May 19 (2 p.m.) 102 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 13 to Feb. 11.

1950

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1	0	1.4	9	0	1.7	17	0	-	25	0	-
2	0	1.5	10	0	1.6	18	0	-	26	.1	-
3	0	1.5	11	0	1.1	19	0	-	27	.9	-
4	0	1.5	12	0	1.6	20	0	-	28	1.2	-
5	0	1.8	13	0	1.4	21	0	-	29	1.7	-
6	0	1.9	14	0	2.1	22	0	-	30	1.8	-
7	0	2.0	15	0	1.8	23	0	-	31	1.4	-
8	0	2.0	16	0	-	24	0	-			

Monthly discharge, in second-feet, 1949-50

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1949	62.3	2.6	1.2	2.01	124
November	90.7	3.9	2.1	3.02	180
December	97.9	4.0	2.6	3.16	194
Calendar year 1949	6,650.1	152	.1	18.2	13,190
January 1950	170.2	10	3.6	5.49	338
February	359.3	23	6.8	12.8	713
March	1,081	63	16	34.9	2,140
April	2,682	128	59	89.4	5,320
May	2,308	100	53	74.5	4,580
June	822	58	11	27.4	1,630
July	119	8.7	1.0	3.84	236
August	13	1.4	0	.42	26
September	13.1	1.1	0	.44	26
Water year 1949-50	7,818.5	128	0	21.4	15,510
October 1950	7.1	1.8	0	.23	14
November 1-15	24.9	2.1	1.1	1.66	49

Little Humboldt River near Paradise Valley, Nev.

Location.--Water-stage recorder, lat. 41°25', long. 117°22', in SE¼ sec. 20, T. 41 N., R. 41 E., 3½ miles downstream from Bullshead Ranch and 9½ miles southeast of Paradise Valley.

Drainage area.--1,030 square miles.

Records available.--October 1921 to June 1928 (fragmentary), October 1943 to September 1950.

Extremes.--Maximum discharge during year, 85 second-feet Apr. 25, May 2 (gage height, 2.43 feet); minimum, 5.2 second-feet Aug. 30.
1921-28, 1943-50: 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 except those for periods of no gage-height record, which are fair. Bullshead Ranch diverts water above station for irrigation. Station is above all diversions in Paradise Valley.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.7	6.7	7.2	6.7	7.2	21	32	76	53	13	6.2	5.7
2	7.7	6.7	7.2	6.7	7.2	21	43	84	50	12	6.2	5.7
3	7.7	6.7	7.2	6.7	7.2	21	55	75	48	11	6.2	6.2
4	7.7	6.7	7.2	6.7	h7.2	23	66	76	45	10	6.2	6.2
5	7.7	6.7	7.2	6.7	7.4	23	78	73	44	11	6.2	5.7
6	7.7	6.7	7.2	6.7	7.7	26	78	69	40	10	6.2	5.7
7	7.7	7.2	7.2	6.7	8.1	27	72	66	39	10	6.2	6.2
8	7.7	7.2	7.2	6.7	8.5	28	69	60	38	9.2	6.2	6.7
9	7.7	8.2	7.2	6.7	9.0	26	64	57	38	8.7	6.2	6.7
10	7.7	8.2	7.2	6.7	9.4	25	61	56	37	9.2	6.2	6.7
11	7.7	8.2	7.2	6.7	9.6	23	58	53	33	9.2	6.2	6.7
12	7.7	8.2	7.2	6.7	9.9	21	53	51	31	9.2	6.2	6.7
13	7.2	8.2	7.2	6.7	10	19	52	49	28	8.7	6.2	6.7
14	7.2	8.2	7.2	7.0	10	18	55	49	27	8.7	6.2	6.2
15	7.2	8.2	7.2	7.3	10	18	58	50	27	8.2	6.2	6.2
16	7.2	8.2	7.2	7.7	10	18	61	52	25	7.7	6.2	5.7
17	7.2	8.2	7.2	8.2	10	17	61	56	24	7.7	6.2	5.7
18	7.2	7.7	7.2	8.5	11	16	57	61	22	7.2	6.2	5.7
19	7.2	7.7	7.2	9.0	13	19	60	68	21	7.2	6.2	5.7
20	7.2	7.2	6.7	9.0	15	25	64	73	19	6.7	6.2	5.7
21	7.2	7.2	6.7	9.1	16	29	66	76	18	6.7	6.2	6.2
22	7.2	7.2	6.7	h9.2	16	35	69	76	17	6.7	6.2	6.2
23	7.2	7.2	6.7	9.8	17	36	73	69	17	6.7	6.2	6.2
24	6.7	7.2	6.7	11	17	37	80	68	15	6.7	6.2	6.2
25	6.7	7.2	6.7	11	17	36	84	64	15	6.2	6.2	6.2
26	6.7	7.2	6.7	11	17	34	84	66	15	6.2	6.2	6.2
27	6.7	7.2	6.7	12	18	37	80	69	16	6.2	6.2	6.2
28	6.7	7.2	6.7	10	19	36	75	68	15	6.2	6.2	6.2
29	6.7	7.2	6.7	9.0	-	32	73	65	14	6.2	6.2	6.2
30	6.7	7.2	6.7	7.8	-	29	75	61	13	6.2	5.7	6.7
31	6.7	-	6.7	7.3	-	28	-	56	-	6.2	6.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	225.2	7.7	6.7	7.26	447
November	223.0	8.2	6.7	7.43	442
December	217.2	7.2	6.7	7.01	431
Calendar year 1949	6,425.9	102	5.2	17.6	12,750
January	251.0	12	6.7	8.10	498
February	324.4	19	7.2	11.6	643
March	804	37	16	25.9	1,590
April	1,956	84	32	65.2	3,880
May	1,992	84	49	64.3	3,950
June	844	53	13	28.1	1,670
July	254.8	13	6.2	8.22	505
August	191.7	6.2	5.7	6.18	380
September	185.0	6.7	5.7	6.17	367
Water year 1949-50	7,468.3	84	5.7	20.5	14,800

Peak discharge (base, 35 sec.-ft.).--Mar. 27 (5 p.m.) 37 sec.-ft.; Apr. 5 (8:30 p.m.) 79 sec.-ft.; Apr. 25 (11 p.m.) 85 sec.-ft.; May 2 (7 a.m.) 85 sec.-ft.

h Discharge computed from staff-gage reading.

Note.--No gage-height record Nov. 28 to Dec. 19, Dec. 23 to Jan. 15, Jan 18-21, Jan. 23 to Feb. 3, Feb. 5-19; discharge computed on basis of weather records and records for station at Chimney dam site, near Paradise Valley.

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 1950.

Average discharge.--28 years (1921-26, 1927-50), 27.9 second-feet.

Extremes.--Maximum discharge during year, 262 second-feet Mar. 19 (gage height, 3.17 feet), from rating curve extended above 140 second-feet on basis of slope-area determination at gage height, 3.98 feet for peak of Feb. 7, 1951; minimum, 4.9 second-feet Dec. 3, Sept. 3.
1921-50: 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 Feb. 6, 1945.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	6.3	7.3	7.0	8.2	38	122	97	132	23	5.8	5.1
2	5.3	6.3	7.3	7.0	a8	40	151	90	124	22	5.8	5.1
3	5.3	7.0	6.6	6.6	a11	62	129	84	110	20	5.8	5.1
4	5.3	7.0	6.6	6.6	a14	68	108	77	102	19	6.0	5.1
5	5.3	7.0	6.6	6.0	15	68	100	72	96	17	6.3	5.1
6	5.8	7.0	7.3	6.3	17	48	102	68	96	16	6.6	5.1
7	5.8	7.0	7.9	7.0	18	38	94	63	86	16	6.3	5.1
8	6.0	7.3	7.0	7.3	15	40	93	59	75	15	5.8	5.8
9	6.0	7.6	6.6	7.9	14	32	81	57	67	14	5.8	6.0
10	6.3	7.9	5.8	8.2	14	31	75	57	62	15	5.6	6.6
11	6.3	7.9	6.0	8.2	14	27	74	63	62	14	5.8	6.3
12	6.3	7.6	6.3	8.2	12	22	80	74	64	12	5.8	6.3
13	6.3	7.6	6.6	8.2	13	23	94	90	58	11	5.8	6.3
14	6.3	7.6	6.3	8.2	13	26	86	116	53	10	5.8	6.3
15	6.3	7.6	6.3	7.9	16	22	81	137	53	9.2	5.6	6.3
16	6.3	7.6	7.0	7.9	20	24	91	145	50	8.9	5.6	6.3
17	6.3	7.6	7.0	8.6	19	63	109	154	50	8.9	5.6	6.3
18	6.3	7.3	7.3	14	23	55	121	156	48	8.2	5.3	7.0
19	6.3	7.3	7.3	22	26	135	116	137	46	7.9	5.3	7.3
20	6.3	7.3	6.3	21	26	97	126	135	a44	7.3	5.3	7.9
21	6.3	7.3	6.0	29	22	72	150	140	43	7.3	5.3	7.0
22	6.3	7.6	7.0	66	21	67	159	153	43	7.0	5.3	7.0
23	6.3	7.6	7.6	62	24	58	140	169	41	7.0	5.3	6.6
24	6.3	7.6	7.6	20	29	64	116	174	39	6.6	5.3	6.6
25	6.3	7.9	7.0	13	48	64	108	158	36	6.3	5.6	6.6
26	6.3	7.9	7.0	11	53	59	102	146	32	6.3	5.6	6.6
27	6.3	7.9	7.6	15	53	54	112	143	30	6.0	5.6	6.6
28	6.3	7.9	7.6	13	43	48	108	145	27	6.0	5.6	6.6
29	6.3	7.9	7.6	7.9	-	46	97	135	26	5.8	5.3	7.0
30	6.3	7.9	7.9	8.6	-	93	87	138	25	5.8	5.3	7.0
31	6.3	-	7.6	8.2	-	116	-	143	-	5.8	5.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	188.7	6.3	5.3	6.09	374
November	223.3	7.9	6.3	7.44	443
December	215.9	7.9	5.8	6.96	428
Calendar year 1949	8,796.7	154	3.8	24.1	17,450
January	437.8	66	6.0	14.1	868
February	609.2	53	8	21.8	1,210
March	1,700	135	22	54.8	3,370
April	3,212	159	74	107	6,370
May	3,575	174	57	115	7,090
June	1,820	132	25	60.7	3,610
July	344.3	23	5.8	11.1	683
August	175.2	6.6	5.3	5.65	348
September	188.0	7.9	5.1	6.27	373
Water year 1949-50	12,689.4	174	5.1	34.8	25,170

Peak discharge (base, 100 sec.-ft.).--Mar. 19 (2:30 p.m.) 262 sec.-ft.; Mar. 30 (5:30 p.m.) 169 sec.-ft.; Apr. 22 (3-4 a.m.) 172 sec.-ft.; May 18 (4-5 a.m.) 167 sec-ft.; May 24 (3-4 a.m.) 187 sec.-ft.; May 31 (3-4 a.m.) 156 sec.-ft.

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

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 1950.

Extremes.--Maximum discharge during year 794 second-feet Mar. 19 (gage height, 3.16 feet), from rating curve extended above 100 second-feet on basis of slope-area determination at peak flow; no flow part of Nov. 16.
1944-50: Maximum discharge, that of Mar. 19, 1950; no flow part of each day Oct. 8, 1948, Nov. 16, 1949.

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

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.1	0.2	0.2	5	11	38	26	41	4.2	0.4	0.3
2	.2	.1	.4	.1	5	9.6	55	24	35	3.8	.4	.3
3	.1	.1	.4	.1	7	16	48	22	31	3.2	.5	.3
4	.1	.1	.4	.1	8	16	35	20	30	2.9	.5	.3
5	.1	.1	.4	.1	9	18	27	18	27	2.7	.5	.3
6	.1	.1	.4	.1	10	18	23	17	23	2.2	.4	.3
7	.2	.1	.4	.1	11	17	21	14	18	2.0	.3	.3
8	.2	.1	.3	.1	10	15	22	13	17	2.0	.3	.4
9	.2	.2	.4	.2	9	16	19	13	18	1.7	.3	.3
10	.3	.2	.4	.2	9	17	17	12	15	1.8	.3	.3
11	.2	.2	.3	.2	9	15	16	13	11	1.7	.3	.3
12	.3	.2	.3	.2	8	12	17	14	10	1.4	.4	.3
13	.2	.2	.2	.2	8	12	20	18	10	1.4	.4	.2
14	.2	.2	.3	.2	8	12	17	23	9.3	1.5	.3	.2
15	.2	.2	.2	.1	10	11	16	29	8.0	1.4	.3	.2
16	.2	.1	.2	*.1	12	11	19	31	7.0	1.4	.4	.2
17	.2	.1	.2	8.2	12	49	27	38	7.0	1.4	.3	.2
18	.2	.2	.2	34	15	47	32	44	6.8	1.2	.3	.2
19	.2	.2	.1	20	16	184	36	35	6.0	1.1	.3	.2
20	.2	.2	*.1	19	*17	87	42	34	5.5	.8	.3	.2
21	.2	.2	.1	78	15	47	60	37	5.1	.9	.3	.2
22	.2	*.2	.2	125	13	40	61	38	5.3	.9	.3	.2
23	.2	.2	.2	90	13	31	47	44	6.0	.9	.3	.2
24	.2	.3	.2	30	12	61	38	48	5.8	.9	.3	.2
25	.1	.3	.2	12	17	53	33	46	6.2	.6	.3	.2
26	.1	.3	.2	7	20	34	30	44	6.0	.6	.4	.1
27	.1	.3	.2	9	18	28	34	41	4.9	.5	.4	.1
28	.1	.4	.2	8	13	22	31	40	5.3	.4	.3	.1
29	.1	.5	.2	5	-	22	31	39	5.5	.4	.3	.2
30	.1	.3	.2	5	-	26	23	41	4.6	.4	.3	.2
31	.1	-	.2	5	-	29	-	41	-	.4	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5.3	0.3	0.1	0.17	11
November	6.0	.5	.1	.20	12
December	7.9	.4	.1	.25	16
Calendar year 1949	1,530.5	44	.1	4.19	3,040
January	457.5	125	.1	14.8	907
February	319	20	5	11.4	633
March	986.6	184	9.6	31.8	1,960
April	935	61	16	31.2	1,850
May	917	48	12	29.6	1,820
June	390.3	41	4.6	13.0	774
July	46.7	4.2	.4	1.5	93
August	10.7	.5	.3	.35	21
September	7.0	.4	.1	.23	14
Water year 1949-50	4,089.0	184	.1	11.2	8,110

Peak discharge (base, 50 sec.-ft.).--Jan. 18 (8:30 p.m.) 78 sec.-ft.; Jan. 22 (3-4 a.m.) 243 sec.-ft.; Mar. 19 (2:30 p.m.) 794 sec.-ft.; Mar. 24 (6:30 p.m.) 109 sec.-ft.; Apr. 2 (7 p.m.) 61 sec.-ft.; Apr. 22 (1-2 a.m.) 73 sec.-ft.; May 24 (3 a.m.) 57 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 19-29, Jan. 1-16, Feb. 17. No gage-height record Jan. 23 to Feb. 19 (stage-discharge relation affected by ice during part of period); discharge computed on basis of records for Martin Creek near Paradise Valley and weather records.

Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Imlay, Nev.

Location.--Water-stage recorder, lat. 40°40', long. 118°12', in NE¼ sec. 1, T. 32 N., R. 33 E., 3 miles northwest of Imlay and 9 miles downstream from head gates.

Records available.--October 1946 to September 1950.

Extremes.--No flow during year.
1946-50: Maximum discharge, 102 second-feet Feb. 27, Mar. 9, 1947; maximum gage height, 3.50 feet Feb. 9, 1947 (backwater from ice); no flow for long periods.

Remarks.--No flow since May 15, 1947. This canal diverts water from Humboldt River in NW¼ sec. 29, T. 33 N., R. 35 E., for storage in Taylor-Pitt Reservoir near Humboldt. Water is released during irrigation season, about 3 miles west of Humboldt, and conveyed through Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal to Rye Patch Reservoir, from which it is later released and carried in natural river channel to Lovelock district for irrigation.

PYRAMID AND WINNEMUCCA LAKES BASIN

Pryamid 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, 6 miles west of Nixon, and 11.5 miles south along Southern Pacific Railroad from station at Sutcliffe. 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 1950. Prior to January 1934, elevations were determined from bench mark No. 1 of General Land Office referred to general adjustment of 1912. To convert lake elevations prior to January 1934 to the datum of 1929, add 0.56 foot.

Extremes.--1926-50: Maximum elevation observed, 3,848.5 feet, datum of 1929, June 1926; minimum observed, 3,802.11 feet Sept. 25, 1950.

Elevation, in feet, above mean sea level, water year 1949-50

Nov. 7	3,804.10	May 12	3,803.28
Dec. 9	3,803.77	June 12	3,803.54
Jan. 7	3,803.55	July 18	3,803.15
Feb. 11	3,803.32	Aug. 16	3,802.59
Apr. 10	3,803.22	Sept. 25	3,802.11

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 1950.

Extremes.--Maximum discharge during year about 700 second-feet Jan. 22 (gage height 5.00 feet, ice jam); minimum, 14 second-feet Jan. 13.
1944-50: Maximum discharge, 1,110 second-feet Feb. 2, 1945; maximum gage height, 6.07 feet Jan. 25, 1949 (ice jam); minimum, 11 second-feet Jan. 27, 1948.

Remarks.--Records excellent except those for periods of ice effect, which are fair. Flow regulated by Lake Tahoe.

Rating table, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 4 to Mar. 13, July 29 to Sept. 30)

0.9	12	1.4	89	2.0	296
1.0	20	1.5	115	2.2	394
1.1	32	1.6	144	2.4	500
1.2	48	1.7	176	2.6	616
1.3	67	1.8	212		

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	43	59	35	70	102	135	339	551	216	389	399
2	107	43	58	27	60	105	176	274	540	194	389	399
3	105	42	56	23	*54	107	212	232	468	187	394	399
4	102	42	56	20	110	115	216	208	430	173	399	399
5	94	42	50	19	144	141	212	201	436	160	399	399
6	92	42	52	18	112	118	232	198	384	154	394	404
7	89	42	48	17	89	102	198	187	287	147	389	404
8	87	43	48	17	82	92	170	173	248	138	394	404
9	80	56	46	17	78	97	147	183	244	135	393	404
10	78	87	43	17	67	74	130	205	244	157	394	404
11	78	87	38	17	61	69	127	248	240	187	394	404
12	78	67	38	17	59	65	135	310	232	187	394	404
13	78	67	39	17	56	63	160	374	236	224	389	404
14	71	65	40	17	54	58	144	451	240	270	384	404
15	69	65	40	17	52	56	154	495	287	265	384	404
16	69	65	38	17	56	56	187	511	274	265	384	404
17	63	65	33	32	54	67	240	506	261	287	384	404
18	63	65	33	65	59	63	278	484	265	315	384	404
19	59	63	42	138	61	147	310	468	278	315	384	404
20	58	63	45	94	63	166	384	484	330	310	384	399
21	56	63	45	124	63	138	446	528	325	330	384	399
22	54	61	48	450	65	187	462	557	296	364	384	399
23	50	61	47	292	69	154	446	557	274	364	384	399
24	50	61	45	187	76	138	410	569	224	359	384	399
25	50	63	44	118	82	115	404	581	198	359	389	399
26	48	61	42	94	92	99	446	540	190	359	399	399
27	46	61	41	120	102	89	462	563	190	354	399	399
28	46	63	*41	110	102	85	420	551	198	374	399	394
29	46	*61	38	100	-	82	359	517	212	404	399	389
30	45	59	35	90	-	89	354	540	224	399	399	364
31	43	-	35	80	-	107	-	592	-	394	399	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,164	110	43	69.8	4,290
November	1,768	87	42	58.9	3,510
December	1,363	59	33	44.0	2,700
Calendar year 1949	76,379	598	28	209	151,500
January	2,406	450	17	77.6	4,770
February	2,092	144	52	74.7	4,150
March	3,146	187	56	101	6,240
April	8,156	462	127	272	16,180
May	12,626	592	173	407	25,040
June	8,806	551	190	294	17,470
July	8,346	404	135	269	16,550
August	12,124	399	384	391	24,050
September	11,990	404	364	400	23,780
Water year 1949-50	74,987	592	17	205	148,700

Peak discharge (base, 700 sec.-ft.).--Jan. 22 (6:15 a.m.) about 700 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Dec. 12-14, 17-29, Jan. 2-11, 14, 22, Jan. 27 to Feb. 3.

Truckee River at Reno, Nev.

Location.--Water-stage recorder, lat. 39°32', long. 119°47', in sec. 12, T. 19 N., R. 19 E., half a mile east of Reno and 5 miles upstream from Steamboat Creek.
Drainage area.--1,070 square miles.
Records available.--January 1947 to September 1950. July 1906 to September 1919 at site 1 mile upstream at different datum.
Extremes.--Maximum discharge during year, 2,620 second-feet May 28 (gage height, 5.45 feet); minimum, 35 second-feet Nov. 3.
1906-19, 1947-50: Maximum discharge observed, 14,600 second-feet Mar. 18, 1907 (gage height, 8.2 feet, site and datum then in use); minimum observed, 18 second-feet July 2, 3, 1912.
Remarks.--Records excellent except those below 200 second-feet, which are good, and those for period of ice effect, which are fair. Flow regulated by Lake Tahoe, Boca Reservoir, Donner and Independence Lakes, and by several power plants. Many diversions above station.

Rating table, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-23, July 3 to Aug. 8)

1.4	52	2.1	230	3.0	650
1.5	70	2.3	303	3.5	970
1.7	114	2.5	390	4.0	1,350
1.9	167	2.8	540	5.2	2,400

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	93	179	191	395	415	802	1,630	2,180	455	156	150
2	72	93	161	191	381	465	802	1,430	2,180	455	161	147
3	83	91	159	b190	405	465	842	1,340	1,990	376	194	156
4	87	63	150	b190	599	450	828	1,240	1,690	292	182	147
5	91	80	152	b200	578	515	900	1,160	1,660	254	179	159
6	87	74	164	b220	659	515	998	1,170	1,680	220	188	161
7	100	72	167	b240	485	450	991	1,100	1,290	179	197	182
8	105	114	159	b250	440	475	874	1,040	991	167	185	194
9	96	150	*142	b250	465	425	868	1,000	790	161	185	204
10	93	240	136	b260	445	430	887	1,030	692	167	185	299
11	105	194	b150	269	430	430	907	1,080	752	159	182	344
12	100	194	b160	b270	390	410	928	1,220	716	167	185	328
13	100	161	b170	*b280	410	475	1,020	1,340	639	145	188	318
14	100	164	b180	579	400	415	963	1,560	639	156	179	307
15	100	182	b180	520	455	425	887	1,780	928	150	200	262
16	107	179	b190	530	430	420	970	1,760	935	147	167	240
17	134	168	207	551	410	445	1,060	1,670	880	200	161	288
18	142	167	220	488	400	455	1,140	1,600	822	210	153	381
19	150	161	173	435	415	495	1,230	1,570	790	153	147	303
20	147	156	b170	470	420	734	1,460	1,500	887	164	153	288
21	107	156	b170	475	420	573	1,720	1,480	998	153	145	280
22	93	191	b175	750	420	722	1,830	1,640	970	153	147	265
23	98	176	b180	1,250	425	656	1,750	1,750	874	150	147	254
24	70	156	b200	*717	420	595	1,640	1,850	722	159	147	244
25	105	159	b250	482	430	525	1,820	2,030	546	167	159	237
26	96	176	b260	505	455	485	1,930	1,980	415	164	153	237
27	114	167	b270	495	505	460	1,980	1,900	385	145	153	240
28	98	176	240	480	445	465	1,950	2,370	344	145	150	237
29	98	191	200	385	-	505	1,660	2,140	390	150	153	254
30	87	194	200	385	-	495	1,570	2,080	450	161	147	254
31	72	-	191	381	-	716	-	2,200	-	159	153	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,117	150	70	101	6,180
November	4,538	240	63	151	9,000
December	5,705	270	136	184	11,320
Calendar year 1949	107,716	1,200	63	295	213,600
January	12,879	1,250	190	415	25,550
February	12,532	659	381	448	24,860
March	15,506	734	410	500	30,780
April	37,207	1,980	802	1,240	73,800
May	48,620	2,370	1,000	1,568	98,440
June	29,225	2,180	344	974	57,970
July	6,083	455	145	196	12,070
August	5,181	200	145	167	10,280
September	7,361	381	147	245	14,600
Water year 1949-50	187,954	2,370	63	515	372,800

Peak discharge (base, 1,600 sec.-ft.).--Jan. 14 (1 p.m.) 1,730 sec.-ft.; Jan. 23 (11 to 11:30 a.m.) 1,690 sec.-ft.; Apr. 22 (8:30 a.m.) 2,000 sec.-ft.; Apr. 28 (5:30 a.m.) 2,150 sec.-ft.; May 16 (6 a.m.) 2,050 sec.-ft.; May 28 (6 to 7 p.m.) 2,620 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Little Truckee River near Hobart Mills, Calif.

Location.--Water-stage recorder, lat. 39°30', long. 120°16', in sec. 14, T. 19 N., R. 15 E., half a mile upstream from Independence Creek and 7½ miles northwest of Hobart Mills.

Drainage area.--33 square miles.

Records available.--December 1946 to September 1950.

Extremes.--Maximum discharge during year, 792 second-feet May 24 (gage height, 4.49 feet); minimum, 2.1 second-feet Aug. 31, Sept. 1.
1946-50: Maximum discharge, that of May 24, 1950; minimum, 1.1 second-feet Aug. 19, 20, 23, 1949.

Remarks.--Records excellent except those below 10 second-feet, which are good, and those for periods of ice effect, which are fair. One transmountain diversion to Sierra Valley above station.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	4.1	11	7.4	17	33	77	312	644	159	5.3	2.2
2	3.5	3.9	9.9	7	16	33	94	231	628	145	5.3	2.2
3	3.5	3.9	9.2	7	15	35	106	203	551	134	5.0	2.2
4	3.5	3.7	8.6	6.5	17	38	114	184	478	118	4.7	2.4
5	3.3	3.7	8.9	6.5	20	46	134	182	461	102	4.5	2.2
6	3.5	3.9	8.9	7	23	43	157	176	413	90	4.3	2.4
7	4.1	4.1	8.6	7	21	40	134	155	283	82	4.1	2.5
8	4.3	4.3	8.6	7.5	20	38	116	142	213	72	4.0	2.6
9	4.3	7.4	8	8	19	33	114	143	198	69	4.0	2.6
10	4.3	6.5	7.4	8	20	31	104	162	207	66	3.8	3.4
11	4.3	6.8	7.2	7.5	22	29	94	198	240	56	3.8	3.4
12	4.1	7.7	7.1	7.5	21	28	95	242	198	49	3.8	4.7
13	4.1	7.7	7.4	7	20	27	107	296	186	42	3.8	3.6
14	3.9	7.4	7.1	7.5	21	27	104	379	194	40	3.4	3.2
15	3.7	7.1	7.1	7	22	28	99	465	211	34	3.2	3.0
16	3.7	7.1	6.8	7	22	30	116	512	229	30	3.0	3.0
17	3.7	7.4	5.8	7.5	22	*33	142	548	224	26	2.8	3.4
18	3.7	7.1	4.8	8.5	21	34	174	537	222	23	2.8	4.7
19	4.1	7.1	4.5	9.5	21	36	209	523	240	21	2.7	4.7
20	4.3	6.8	4.5	11	21	40	263	544	275	18	2.7	3.8
21	4.3	7.1	4.5	20	21	38	331	612	290	16	2.6	3.0
22	4.1	7.1	4.8	35	22	40	382	676	261	14	2.6	3.0
23	4.1	7.4	5	45	*24	40	388	676	233	13	2.6	3.0
24	4.1	8.6	5	*39	24	38	355	676	186	13	2.6	3.0
25	4.1	8.9	5	30	29	36	352	664	155	11	2.6	3.0
26	4.1	9.2	5.5	20	33	35	397	652	140	10	2.5	3.8
27	3.9	12	6	22	35	38	442	648	134	9.6	2.4	3.8
28	3.9	*18	*6.8	24	34	42	404	656	138	8.3	2.4	2.5
29	3.9	15	7.4	22	-	45	340	620	151	7.9	2.2	2.4
30	4.1	12	7.4	20	-	50	334	652	159	6.7	2.2	2.5
31	4.1	-	7.4	18	-	64	-	688	-	5.3	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	122.3	4.3	3.3	3.95	243
November	223.0	18	3.7	7.43	442
December	216.2	11	4.5	6.97	429
Calendar year 1949	18,939.6	646	1.3	51.9	37,560
January	446.9	45	6.5	14.4	886
February	623	35	15	22.2	1,240
March	1,148	64	27	37.0	2,280
April	6,278	442	77	209	12,450
May	13,354	688	142	431	26,490
June	8,142	644	134	271	16,150
July	1,490.8	159	5.3	48.1	2,960
August	103.9	5.3	2.2	3.35	206
September	92.2	4.7	2.2	3.07	183
Water year 1949-50	32,240.3	688	2.2	88.3	63,960

Peak discharge (base, 500 sec.-ft.).--May 18 (1 p.m.) 608 sec.-ft.; May 24 (11 p.m.) 792 sec.-ft.
* Winter discharge measurement made on this day.
Note.--Stags-discharge relation affected by ice Dec. 9, 11, 19-29, Jan. 2 to Feb. 14, Feb. 17, 18, 20-22, Feb. 28 to Mar. 4, Mar. 6-29.

Franktown Creek at Franktown, Nev.

Location.--Water-stage recorder, lat. 39°16', long. 119°51', in sec. 9, T. 16 N., R. 19 E., half a mile west of Franktown and 3 miles upstream from Washoe Lake.

Drainage area.-14 square miles.

Records available.--April 1948 to September 1950.

Extremes.--Maximum discharge during year, 165 second-feet June 15 (gage height, 3.55 feet); minimum, 0.7 second-foot Nov. 10.
1948-50: Maximum discharge, that of June 15, 1950; minimum 0.2 second-foot Feb. 7, 8, 9, 1949 (flow dammed by snowslide).

Remarks.--Records good except those for period of no gage-height record, which are fair. Small diversions on tributaries above station for irrigation. Flow sometimes supplemented during summer by diversion from North Creek, a tributary to Lake Tahoe.

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	3.1	4.0	5.6	7.6	13	27	34	42	20	6.1	4.0
2	2.1	3.1	3.8	5.6	7.4	13	39	37	41	17	6.0	4.2
3	2.1	3.0	3.6	6.0	7.4	14	33	33	38	20	6.0	4.0
4	1.9	3.0	3.8	5.4	13	17	27	31	34	19	5.6	4.0
5	2.0	2.7	3.8	5.6	21	15	29	34	33	18	5.6	3.8
6	2.5	2.7	3.8	5.0	16	14	a30	26	31	16	5.6	3.8
7	3.0	3.0	3.8	4.8	12	12	a27	23	32	12	5.2	4.8
8	3.3	3.1	3.7	4.8	10	12	a26	22	30	14	5.4	5.4
9	3.1	2.1	3.4	5.0	9.5	11	a23	24	27	16	5.2	5.4
10	3.1	1.1	4.0	5.4	9.2	10	a20	27	26	15	5.2	5.4
11	3.0	3.0	4.0	5.0	8.7	9.5	a21	29	28	15	5.2	5.6
12	2.9	4.5	5.6	5.8	8.3	11	22	32	24	14	5.2	5.6
13	2.9	4.5	6.9	6.0	8.0	10	22	36	24	14	5.0	5.8
14	3.0	4.5	5.6	6.3	8.0	11	19	43	23	13	4.7	5.6
15	3.0	4.3	5.0	4.7	8.5	11	20	49	68	13	4.7	5.8
16	3.0	4.2	4.7	5.4	9.2	12	25	52	33	12	4.8	6.0
17	2.9	4.0	3.7	7.8	9.2	15	32	48	27	11	4.8	9.0
18	3.1	4.0	3.8	17	9.2	12	33	46	25	10	4.5	9.5
19	3.7	4.0	4.3	15	9.7	34	37	43	25	9.5	4.5	9.0
20	3.6	4.0	5.0	15	9.7	24	53	44	28	10	4.2	8.7
21	3.4	3.8	5.4	20	9.2	19	67	45	28	9.7	3.8	8.0
22	3.3	3.7	5.2	42	9.2	26	67	45	27	9.7	3.8	6.9
23	3.4	4.3	5.4	25	10	15	59	47	25	9.0	4.2	6.7
24	3.3	4.5	5.6	16	12	13	49	46	24	8.7	4.0	6.5
25	3.1	4.7	5.4	13	13	15	52	45	23	8.5	3.8	6.3
26	3.0	4.3	5.4	11	15	14	57	44	22	8.3	3.8	6.3
27	3.1	4.8	5.4	9.7	15	14	58	44	21	8.3	4.0	6.3
28	3.1	4.8	5.8	9.0	14	14	50	43	20	7.2	3.7	6.3
29	3.0	4.3	5.8	8.5	-	15	42	42	22	6.9	4.3	6.1
30	3.0	4.2	5.6	8.0	-	19	42	42	25	6.7	4.0	6.5
31	3.1	-	5.6	7.8	-	23	-	43	-	6.5	4.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	91.1	3.7	1.9	2.94	181
November	111.3	4.8	1.1	3.71	221
December	146.9	6.9	3.4	4.74	291
Calendar year 1949	2,824.1	59	.2	7.74	5,590
January	311.2	42	4.7	10.0	617
February	299.0	21	7.4	10.7	593
March	467.5	34	9.5	15.1	927
April	1,108	67	19	36.9	2,200
May	1,199	52	22	38.7	2,380
June	876	68	20	29.2	1,740
July	378.0	20	6.5	12.2	750
August	146.9	6.1	3.7	4.74	291
September	181.3	9.5	3.8	6.04	360
Water year 1949-50	5,316.2	68	1.1	14.6	10,550

Peak discharge (base, 50 sec.-ft.).--Jan. 22 (1:30 a.m.) 66 sec.-ft.; Mar. 19 (4 p.m.) 62 sec.-ft.; Apr. 2 (5:30 p.m.) 61 sec.-ft.; Apr. 22 (5:30 p.m.) 93 sec.-ft.; May 16 (8 p.m.) 66 sec.-ft.; June 15 (5:45 a.m.) 165 sec.-ft.

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

Quinn River near McDermitt, Nev.

Location.--Water-stage recorder, lat. 41°47', long. 117°48', in SW¼ sec. 15, T. 45 N., R. 37 E., about 1½ miles above Flat Creek and 13 miles south of McDermitt.

Records available.--October 1948 to September 1950.

Extremes.--1948-49: Maximum discharge during water year, 188 second-feet May 20 (gage height, 3.44 feet); minimum, 0.2 second-foot Dec. 22.
1949-50: Maximum discharge during water year, 62 second-feet May 5 (gage height, 2.54 feet); minimum, 0.4 second-foot Jan. 26.

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

Discharge, in second-feet, 1948-50

1948-49

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a1.0	1.5	1.2	0.7	1.0	0.7	0.7	92	88	4.8	0.7	0.6
2	1.0	1.4	1.2	.7	.9	.8	.7	85	99	4.1	.7	.6
3	1.0	1.4	1.2	.7	1.0	.9	.7	81	94	3.4	.7	.6
4	1.0	1.3	1.2	.7	1.0	.8	.7	81	80	2.7	.7	.7
5	1.0	1.3	1.2	.7	.9	.7	.7	78	66	2.2	.7	.7
6	1.0	1.3	1.1	.8	.9	.7	.7	72	52	1.6	.7	.7
7	1.0	1.2	*1.0	.9	.9	.7	.7	66	46	1.2	.7	.7
8	1.0	1.2	.8	.9	.9	.7	.7	62	41	1.1	.7	.8
9	.9	1.2	.8	.8	1.0	.7	.9	62	36	1.0	.7	.9
10	.8	1.2	.8	.7	.9	.7	3.7	60	32	1.0	.7	.8
11	.8	1.2	.8	.7	.8	.9	7.4	60	27	.9	.8	.8
12	.8	1.1	1.0	.7	.7	.7	13	60	23	.9	.7	.7
13	1.1	1.1	.8	.8	.8	.7	24	60	20	.9	.6	.7
14	1.2	1.1	.8	.9	.8	.7	25	67	19	.9	.6	.7
15	1.3	1.2	.7	1.0	.8	.8	29	91	17	.8	.6	.7
16	1.4	1.1	.7	.9	.9	.7	29	169	16	.7	.6	.7
17	1.4	1.1	.7	.9	.9	*.7	32	166	14	.7	.6	.7
18	1.4	1.1	.7	.9	1.0	.7	46	162	13	.7	.6	.7
19	1.4	1.1	.7	.8	.9	.7	69	166	13	.7	.6	.7
20	1.4	1.1	.7	.7	.8	.7	92	180	13	.7	.7	.7
21	1.4	1.2	.7	.6	.8	.7	95	166	13	.7	.6	.7
22	1.3	1.2	.6	.7	.9	.7	101	154	11	.7	.6	.7
23	1.3	1.2	.7	.7	.9	.7	121	139	9.4	.7	.6	.7
24	1.3	1.2	.6	.7	.8	.7	125	119	8.6	.7	.7	.7
25	1.3	1.2	.6	.6	.7	.7	125	102	8.0	.7	.6	.7
26	1.3	1.2	.7	.7	.7	.7	119	86	7.4	.7	.6	.7
27	1.3	1.2	.7	.8	.7	.7	113	72	7.0	.7	.6	.7
28	1.3	1.2	.7	.8	.7	.7	102	59	6.4	.7	.6	.7
29	1.3	1.2	.7	.7	-	.7	100	65	6.1	.7	.6	.6
30	1.4	1.2	.7	.8	-	.7	99	78	5.5	.7	.6	.7
31	1.4	-	.7	*.9	-	.7	-	80	-	.7	.6	-

Peak discharge (base, 100 sec.-ft.).--Apr. 24 (9 p.m.) 133 sec.-ft.; May 20 (8 p.m.) 188 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for nearby streams,
Note.--Stage-discharge relation affected by ice Dec. 23-28, Jan. 4-14, 19-31, Feb. 5-8.

Discharge, in second-feet, of Quinn River near McDermitt, Nev., 1948-50--Continued

1949-50

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	0.7	0.7	0.7	0.7	3.7	14	33	9.0	1.1	0.8	0.6
2	.7	.7	.7	.7	.7	3.2	30	47	8.0	1.1	.8	.6
3	.7	.7	.7	b.7	.7	3.4	29	43	7.0	1.0	.9	.6
4	.7	.7	.7	b.7	.8	2.4	24	51	5.8	1.0	1.0	.6
5	.7	.7	.7	b.7	.8	4.4	23	59	5.0	1.0	1.0	.6
6	.7	.7	.7	b.7	.8	5.0	23	48	4.8	1.0	.9	.6
7	.8	.7	.7	.8	.7	4.4	23	40	4.8	1.0	.9	.6
8	.7	.8	.7	.8	.7	3.0	25	39	5.3	.9	.9	.7
9	.7	.8	.7	.8	.7	2.2	24	44	5.5	.9	.9	.7
10	.8	.9	.7	.8	.8	2.1	22	37	5.3	1.0	.9	.7
11	.8	.7	.7	.8	.7	1.4	20	31	4.8	.9	.9	.7
12	.8	.7	.7	.8	.7	1.2	18	30	4.6	.9	.9	.6
13	.8	.7	.7	.8	.7	1.1	18	30	4.8	.9	.8	.6
14	.8	.7	.7	b.8	.7	1.0	24	33	5.0	.9	.8	.6
15	.8	.7	.7	b.7	.7	.8	24	45	4.8	.9	.8	.6
16	.8	.7	.7	b.8	.7	.7	23	47	5.0	.9	.7	.6
17	.8	.7	.7	*1.0	.7	.7	22	44	4.8	.9	.7	.7
18	.8	.7	.7	1.0	.7	.7	22	44	3.7	.9	.7	.6
19	.8	.7	.7	.8	.7	.8	26	44	3.2	.9	.7	.6
20	.8	.7	.7	.8	.7	1.1	29	46	2.9	.9	.7	.7
21	.8	.7	*.7	.9	2.2	8.0	31	38	2.6	.8	.7	.7
22	.8	.7	.7	.8	2.7	7.7	40	36	2.2	.8	.6	.7
23	.8	.7	.8	.9	2.6	5.8	41	32	1.9	.8	.6	.7
24	.8	.7	.7	.7	2.1	6.7	37	25	1.6	.8	.7	.7
25	.7	.7	.7	.7	1.9	7.0	36	22	1.4	.8	.7	.7
26	.7	.7	.7	.7	1.8	6.7	32	19	1.2	.8	.7	.7
27	.7	.7	.7	.7	4.1	6.1	29	16	1.2	.8	.7	.7
28	.7	.7	.7	.7	4.4	5.5	27	13	1.2	.8	.7	.8
29	.7	.7	.7	.7	-	5.0	29	11	1.2	.8	.7	.8
30	.7	.7	.7	.7	-	5.3	29	10	1.2	.8	.7	.8
31	.7	-	.7	.7	-	4.8	-	9.8	-	.8	.6	-

Peak discharge (base, 100 sec.-ft.).--No peak above base.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Monthly discharge, in second-feet, 1948-50

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1948	36.5	1.4	0.8	1.18	72
November	36.2	1.5	1.1	1.21	72
December	25.5	1.2	.6	.82	51
Calendar year	-	-	-	-	-
January 1949	23.9	1.0	.6	.77	47
February	24.0	1.0	.7	.86	48
March	22.4	.9	.7	.72	44
April	1,476.6	125	.7	49.2	2,930
May	3,040	180	59	98.1	6,030
June	891.4	99	5.5	29.7	1,770
July	38.7	4.8	.7	1.25	77
August	20.1	.8	.6	.65	40
September	21.1	.9	.6	.70	42
Water year 1948-49	5,656.4	180	.6	15.5	11,220
October 1949	23.3	.8	.7	.75	46
November	21.4	.9	.7	.71	42
December	21.8	.8	.7	.70	43
Calendar year 1949	5,624.7	180	.6	15.4	11,160
January 1950	23.9	1.0	.7	.77	47
February	36.2	4.4	.7	1.29	72
March	111.9	8.0	.7	3.61	222
April	794	41	14	26.5	1,570
May	1,066.8	59	9.8	34.4	2,120
June	119.8	9.0	1.2	3.99	232
July	27.8	1.1	.8	.90	55
August	24.1	1.0	.6	.78	48
September	19.9	.8	.6	.66	39
Water year 1949-50	2,290.9	59	.6	6.28	4,540

McDermitt Creek near McDermitt, Nev.

Location.--Water-stage recorder, lat. 41°58', long. 117°50', in SE¼SE¼ sec. 8, T. 47 N., R. 37 E., 6½ miles southwest of McDermitt.

Records available.--October 1948 to September 1950.

Extremes.--1948-49: Maximum discharge during water year, 231 second-feet Apr. 12 (gage height, 3.44 feet); minimum, 0.5 second-foot Jan. 13.
1949-50: Maximum discharge during water year, 299 second-feet Mar. 20 (gage height, 3.83 feet); minimum, 0.8 second-foot Dec. 5.

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

Rating table, Oct. 1, 1948, to Sept. 30, 1950, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 18 to June 15, July 5 to Sept. 20, 1950)

1.5	0.5	2.0	7.0	2.6	67
1.6	1.0	2.1	12	2.8	103
1.7	1.6	2.2	20	3.0	144
1.8	2.8	2.3	29	3.4	224
1.9	4.2	2.4	40	3.9	310

Discharge, in second-feet, 1948-50

1948-49

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	4.1	f3.9	3.3	5.0	12	20	66	60	4.2	1.8	0.8
2	2.2	5.0	f5.0	3.1	5.3	13	27	66	50	4.5	1.9	.8
3	2.3	5.3	f4.8	2.9	*5.6	14	27	64	42	6.2	1.4	.8
4	2.2	5.3	f5.0	2.9	6.0	13	34	55	38	6.2	1.0	.8
5	2.4	3.8	4.5	3.0	5.5	12	44	41	33	5.6	.9	.7
6	2.8	4.5	f3.9	3.3	5.5	12	55	37	33	5.9	.8	.8
7	2.8	f4.2	*4.1	3.4	5.5	11	70	33	36	4.8	.7	.7
8	2.7	2.4	4.2	3.5	5.7	9.0	82	34	34	4.5	.8	.8
9	2.4	f2.7	5.0	3.0	6.4	8.5	115	41	30	4.5	.9	.9
10	2.4	f3.1	5.6	2.0	7.0	8.5	107	44	27	4.8	1.1	.9
11	2.4	f3.9	7.0	1.1	6.0	9.5	148	50	23	5.0	1.2	1.2
12	2.4	f3.8	7.0	.6	5.5	10	179	52	20	6.4	1.2	1.4
13	2.6	4.8	6.4	1.2	5.5	10	148	55	18	6.2	1.1	1.4
14	2.9	f6.2	5.0	3.8	8.0	10	115	67	15	5.6	1.0	1.4
15	3.1	5.9	3.8	4.0	10	14	99	84	14	4.8	1.0	1.4
16	3.4	5.9	6.2	3.5	12	17	103	109	12	4.1	1.0	1.2
17	3.1	5.3	5.0	3.5	10	20	111	84	12	4.1	1.0	1.2
18	3.2	f2.4	4.5	3.5	10	26	119	82	12	3.6	1.2	1.4
19	3.5	3.8	6.2	3.2	9.0	*36	146	70	16	3.4	1.1	1.2
20	3.5	f4.2	7.0	3.0	8.5	34	119	90	16	3.4	.9	1.2
21	3.5	4.8	4.2	3.5	8.5	32	105	70	12	3.4	.8	1.1
22	3.4	4.1	4.0	4.0	8.5	32	107	58	9.5	3.2	.7	1.1
23	3.4	f3.5	4.0	3.5	8.5	28	115	51	8.0	2.8	.8	1.1
24	3.5	5.9	3.5	3.0	8.5	24	119	46	7.5	2.6	.8	1.1
25	3.5	3.1	3.5	3.0	8.5	22	103	42	6.2	2.7	.8	1.1
26	3.4	2.0	3.5	3.5	9.0	22	94	40	5.6	2.6	.8	1.2
27	3.5	f3.2	3.5	4.0	10	21	86	39	5.3	2.4	.8	1.4
28	3.5	f2.7	3.5	4.5	11	20	84	38	5.0	2.2	.9	2.7
29	3.9	f3.8	3.5	4.0	-	18	79	80	4.8	2.0	1.2	3.1
30	3.5	f3.8	3.5	4.5	-	20	70	77	4.2	1.9	1.2	2.7
31	4.1	-	3.5	4.5	-	18	-	67	-	1.9	1.0	-

Peak discharge (base, 150 sec.-ft.).--Apr. 12 (1:50 a.m.) 231 sec.-ft.; Apr. 19 (8 a.m.) 181 sec. ft.

* Winter discharge measurement made on this day.

f Computed on basis of partly estimated gage-height record.

Note.--Stage-discharge relation affected by ice Dec. 22-25, Dec. 27 to Jan. 2, Jan. 4-10, Jan. 15 to Feb. 15.

Discharge, in second-feet, of McDermitt Creek near McDermitt, Nev., 1948-50--Continued.

1949-50

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	3.1	4.2	1.8	3.0	26	113	41	45	9.0	3.8	1.1
2	2.6	3.2	4.2	1.8	3.0	25	107	49	41	8.0	3.6	1.1
3	2.6	3.4	3.5	1.6	3.2	26	99	42	39	8.5	3.8	1.1
4	2.6	3.4	2.7	1.6	4.0	33	84	42	36	12	3.9	1.0
5	2.7	3.4	2.7	1.8	4.5	38	77	38	33	10	4.8	1.0
6	2.9	3.4	3.4	1.8	5.0	29	74	36	36	12	5.3	1.1
7	3.4	3.5	4.1	1.8	5.5	24	72	33	39	17	4.1	1.4
8	3.4	3.8	3.8	2.0	5.5	29	67	29	34	16	3.6	2.0
9	3.5	4.2	3.6	2.0	6.0	22	55	28	30	16	3.1	5.0
10	3.9	5.0	3.0	2.0	6.5	21	42	25	26	14	3.1	4.2
11	3.9	4.8	2.6	1.8	7.5	16	39	26	23	14	3.2	3.4
12	3.5	4.2	2.0	1.8	8.5	16	39	26	29	12	3.2	3.1
13	3.4	4.1	2.0	2.0	9.5	16	44	29	32	10	3.1	2.7
14	3.4	4.2	2.0	2.0	14	18	50	38	25	9.0	2.9	2.6
15	3.4	4.2	2.2	1.8	15	15	46	48	21	8.0	2.7	2.7
16	3.4	4.2	2.0	2.0	21	16	46	48	25	8.0	2.6	2.6
17	3.2	4.2	2.4	*2.4	20	23	51	52	20	7.5	2.4	2.9
18	2.8	4.1	2.6	2.6	20	50	54	55	19	7.0	2.2	3.2
19	2.4	3.9	2.2	2.8	29	83	54	52	19	6.7	1.9	3.6
20	2.9	3.9	1.8	2.8	30	113	52	49	18	6.4	1.9	3.8
21	3.5	3.9	*1.8	2.6	*19	64	54	49	17	6.2	2.2	3.1
22	3.1	4.1	1.8	2.8	16	50	57	52	17	5.6	1.7	2.8
23	3.1	*5.0	1.8	2.8	17	46	57	60	16	5.3	1.6	2.8
24	3.2	4.8	1.8	2.6	18	42	52	60	20	5.0	1.6	2.7
25	3.2	4.8	1.6	2.4	54	41	46	54	19	4.2	1.9	2.6
26	3.1	4.8	1.6	2.2	48	42	41	50	15	4.8	1.9	2.6
27	3.1	4.5	1.8	2.6	37	39	44	49	12	4.2	1.8	2.4
28	3.1	4.5	1.8	3.0	29	36	42	50	11	3.9	1.6	2.6
29	3.1	4.5	1.8	2.8	-	29	39	48	10	4.1	1.5	2.4
30	3.2	4.5	1.8	3.0	-	67	38	46	9.0	4.1	1.4	2.6
31	3.1	-	1.8	3.2	-	118	-	49	-	3.9	1.3	-

Peak discharge (base, 150 sec.-ft.).--Mar. 20 (12:30 a.m.) 299 sec.-ft.; Mar. 30 (11:50 p.m.) 268 sec.-ft.

* Winter discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 10 to Feb. 11.

Monthly discharge, in second-feet, 1948-50

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1948	93.8	4.1	2.2	3.03	186
November	123.5	6.2	2.0	4.12	245
December	144.3	7.0	3.5	4.65	286
Calendar year	-	-	-	-	-
January 1949	99.8	4.5	.6	3.22	198
February	214.5	12	5.0	7.66	425
March	556.5	36	8.5	18.0	1,100
April	2,830	179	20	94.3	5,610
May	1,832	109	33	59.1	3,630
June	609.1	60	4.2	20.3	1,210
July	125.5	6.4	1.9	4.05	249
August	31.8	1.9	.7	1.03	63
September	37.6	3.1	.7	1.25	75
Water year 1948-49	6,698.4	179	.6	18.4	13,280
October 1949	97.3	3.9	2.4	3.14	193
November	123.6	5.0	3.1	4.12	245
December	76.4	4.2	1.6	2.46	152
Calendar year 1949	6,634.1	179	.6	18.2	13,150
January 1950	70.2	3.2	1.6	2.26	139
February	458.7	54	3.0	16.4	910
March	1,213	118	15	39.1	2,410
April	1,735	113	38	57.8	3,440
May	1,353	60	25	43.6	2,680
June	736.0	45	9.0	24.5	1,460
July	262.4	17	3.9	8.46	520
August	83.7	5.3	1.3	2.70	166
September	76.2	5.0	1.0	2.54	151
Water year 1949-50	6,285.5	118	1.0	17.2	12,470

East Fork Quinn River near McDermitt, Nev.

Location.--Water-stage recorder, lat. 41°59', long. 117°35', in sec. 9, T. 47 N., R. 39 E., 1 mile downstream from South Fork and 7 miles east of McDermitt.

Records available.--October 1948 to September 1950.

Extremes.--1948-49: Maximum discharge during water year, 286 second-feet Apr. 22 (gage height, 4.02 feet); minimum, 1.0 second-foot Aug. 6-9, 27, Aug. 30 to Sept. 9.
1949-50: Maximum discharge during water year, 394 second-feet Mar. 31 (gage height, 4.70 feet), from rating curve extended above 240 second-feet on basis of slope-area determination at gage height, 4.57 feet for flood of Feb. 7, 1951; minimum, 0.5 second-foot Sept. 3, 4.

Remarks.--Records good above 10 second-feet and fair below.

Discharge, in second-feet, 1948-50

1948-49

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	4.0	2.8	4.5	*4.0	12	29	102	57	8.2	1.8	1.0
2	1.3	4.0	3.7	4.2	4.2	15	31	103	52	7.9	1.8	1.0
3	1.4	4.5	3.7	4.5	4.5	16	33	103	47	7.6	1.6	1.0
4	1.8	4.2	3.2	4.2	4.2	17	36	99	44	7.3	1.3	1.0
5	1.9	3.5	4.0	3.5	4.2	18	43	94	42	6.7	1.2	1.0
6	2.1	4.2	4.2	3.0	4.8	17	56	92	39	6.1	1.0	1.0
7	2.1	3.7	*3.7	3.0	4.2	18	69	92	37	5.8	1.0	1.0
8	1.9	2.8	4.5	3.2	4.5	19	88	92	35	5.0	1.0	1.0
9	1.9	2.8	4.5	3.5	4.5	18	105	94	33	4.8	1.0	1.0
10	2.1	3.7	4.8	3.5	5.0	19	116	97	30	4.5	1.2	1.1
11	2.1	3.5	5.5	3.5	4.8	21	160	100	28	4.5	1.3	1.2
12	2.1	3.7	5.5	3.7	4.0	19	191	103	27	4.5	1.3	1.2
13	2.5	4.5	5.3	3.5	b4	19	158	103	25	4.0	1.3	1.2
14	3.0	4.8	5.0	3.5	4.8	21	150	103	24	3.2	1.2	1.2
15	3.5	5.3	2.8	3.7	4.5	25	144	113	22	3.2	1.3	1.2
16	3.0	5.0	4.0	4.0	5.0	30	158	139	21	3.2	1.3	1.2
17	3.0	4.8	4.2	4.2	5.3	30	203	136	21	2.8	1.4	1.3
18	3.0	3.5	4.8	4.2	5.5	32	221	134	20	2.7	1.4	1.4
19	3.0	4.5	4.8	4.0	5.3	*36	227	126	21	2.7	1.3	1.4
20	3.2	4.5	5.0	b4	5.5	34	188	134	19	2.7	1.2	1.4
21	3.2	4.5	3.2	4.0	5.8	34	192	126	17	2.8	1.1	1.4
22	3.2	4.2	3.0	4.0	6.7	34	205	99	16	2.7	1.2	1.3
23	3.5	3.7	2.8	4.2	7.0	32	201	79	14	2.5	1.2	1.4
24	3.5	4.5	2.5	b3.8	7.3	30	178	75	13	2.5	1.2	1.6
25	3.5	3.7	2.1	b4	7.3	29	153	73	12	2.5	1.1	1.6
26	3.5	3.5	1.9	4.8	7.9	28	138	70	11	2.7	1.1	1.4
27	3.2	3.2	2.5	4.2	8.8	28	128	67	11	2.3	1.0	1.6
28	3.5	3.0	3.0	4.0	9.6	28	119	64	10	2.3	1.2	1.8
29	3.7	3.2	3.7	b4	-	28	114	67	9.2	1.9	1.2	1.9
30	3.7	2.7	4.2	4.0	-	29	106	62	8.8	1.9	1.0	2.1
31	3.7	-	4.2	4.0	-	28	-	60	-	1.6	1.0	-

Peak discharge (base, 100 sec.-ft.).--Apr. 12 (3 a.m.) 262 sec.-ft.; Apr. 22 (8 p.m.) 286 sec.-ft.; May 19 (10 p.m.) 148 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Discharge, in second-feet, of East Fork Quinn River near McDermitt, Nev., 1948-50--Continued

1949-50

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	3.7	5.0	3.7	b10	22	175	55	33	6.7	1.4	0.8
2	1.9	3.7	5.0	3.5	b10	21	122	55	30	6.4	1.3	.7
3	2.1	3.7	4.2	3.5	b10	35	92	55	29	6.1	1.4	.6
4	2.1	4.0	3.7	4.0	11	39	79	56	26	6.1	1.9	.5
5	2.3	3.7	4.2	3.7	12	36	72	61	25	5.5	2.5	.6
6	2.5	4.0	4.0	3.7	13	28	69	60	25	5.0	2.3	.7
7	2.8	4.0	5.3	4.0	13	25	65	57	26	5.0	1.9	.8
8	3.0	4.0	4.5	4.0	12	25	64	54	25	4.8	1.6	1.0
9	3.0	4.5	3.7	4.2	11	22	61	52	23	4.5	1.4	1.6
10	3.7	5.0	3.0	4.2	11	21	55	50	20	4.2	1.4	1.2
11	3.7	4.5	2.7	4.5	11	20	54	51	20	4.8	1.6	1.1
12	3.5	4.2	3.0	4.5	9.2	16	54	54	21	4.2	1.8	1.1
13	3.2	4.2	3.2	4.0	10	16	58	57	19	4.0	1.4	1.1
14	3.2	4.5	3.2	4.5	10	16	60	62	17	3.2	1.3	1.0
15	3.2	4.2	3.2	4.2	10	15	61	65	16	3.0	1.3	1.1
16	3.2	4.2	3.5	4.0	11	15	59	64	15	3.0	1.2	1.2
17	3.2	4.2	3.7	*4.2	12	28	61	65	14	3.2	1.2	1.3
18	3.2	4.2	3.7	7.3	16	32	63	64	14	2.7	1.1	1.4
19	3.2	4.0	3.7	8.8	21	73	64	60	13	2.5	1.0	1.9
20	3.5	c3.7	3.5	13	18	77	65	57	13	2.3	1.0	1.8
21	3.5	c4.0	4.0	32	*14	65	73	56	12	1.8	1.0	1.8
22	3.5	c4.0	4.0	67	13	63	80	55	12	1.9	1.0	1.9
23	3.5	4.2	4.2	50	14	55	77	54	12	1.8	.9	2.1
24	3.5	4.2	4.2	28	14	54	71	52	13	1.6	1.0	2.1
25	3.5	4.8	3.7	20	24	54	67	49	12	1.6	1.0	2.1
26	3.7	4.8	4.2	16	28	50	61	44	11	1.9	.9	2.3
27	3.7	4.8	4.2	20	28	46	63	43	10	1.6	.9	2.5
28	3.7	5.0	4.0	19	25	40	62	42	8.8	1.4	.8	2.5
29	3.7	5.0	4.0	14	-	37	60	39	7.9	1.4	.9	2.5
30	3.7	5.0	4.2	12	-	58	54	37	7.3	1.6	.8	2.7
31	3.7	-	3.7	b11	-	188	-	35	-	1.6	.8	-

Peak discharge (base, 100 sec.-ft.).--Mar. 19 (7:30 p.m.) 140 sec.-ft.; Mar. 31 (5:30 p.m.) 394 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Variable backwater; discharge computed on basis of gage heights and weather records.

Monthly discharge, in second-feet, 1948-50

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1948	84.5	3.7	1.3	2.73	168
November	117.7	5.3	2.7	3.92	233
December	119.1	5.5	1.9	3.84	236
Calendar year	-	-	-	-	-
January 1949	120.4	4.8	3.0	3.88	239
February	153.2	9.6	4.0	5.47	304
March	764	36	12	24.6	1,520
April	3,940	227	29	131	7,810
May	3,001	139	60	96.8	5,950
June	766	57	8.8	25.5	1,520
July	123.1	8.2	1.6	3.97	244
August	38.2	1.8	1.0	1.23	76
September	38.9	2.1	1.0	1.30	77
Water year 1948-49	9,266.1	227	1.0	25.4	18,380
October 1949	98.3	3.7	1.9	3.17	195
November	128	5.0	3.7	4.27	254
December	120.4	5.3	2.7	3.88	239
Calendar year 1949	9,291.5	227	1.0	25.5	18,430
January 1950	386.5	67	3.5	12.5	767
February	401.2	28	9.2	14.3	796
March	1,292	188	15	41.7	2,560
April	2,121	175	54	70.7	4,210
May	1,660	65	35	53.5	3,290
June	530.0	33	7.3	17.7	1,050
July	105.4	6.7	1.4	3.40	209
August	40.0	2.5	.8	1.29	79
September	44.0	2.7	.5	1.47	87
Water year 1949-50	6,926.8	188	.5	19.0	13,740

Twentymile Creek near Adel, Oreg.

Location.--Water-stage recorder, lat. 42°04', long. 119°57', in NE¼ sec. 25, T. 40 S., R. 24 E., 2 miles downstream from Twelvemile Creek and 8 miles southwest of Adel.
Records available.--March 1910 to July 1916, December 1917 to September 1919, March 1921 to June 1922 (published as Twentymile Creek near Warner Lake), March 1945 to September 1950. September 1940 to November 1944 at site 1½ miles upstream.
Average discharge.--15 years (1910-15, 1918-19, 1940-44, 1945-50), 42.9 second-feet.
Extremes.--Maximum discharge during year, 1,020 second-feet Mar. 17 (gage height, 6.34 feet), from rating curve extended above 550 second-feet by logarithmic plotting; minimum, 2.0 second-feet July 30 to Aug. 3.
1910-16, 1917-19, 1921-22, 1940-50: Maximum discharge, 3,000 second-feet Dec. 27, 1942 (gage height, 4.28 feet, site and datum then in use), from rating curve extended above 400 second-feet by logarithmic plotting; minimum, 0.9 second-foot Aug. 19, 23, 24, 1942.
Remarks.--Records fair except those above 400 second-feet and those for periods of ice effect or no gage-height record, which are poor. Many diversions above station for irrigation; no regulation.
Revisions (water years).--W 1090: 1945.

Rating tables, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 17				Mar. 18 to Sept. 30			
0.3	2.8	1.1	64	0.2	1.2	0.7	23
.4	4.5	1.3	90	.3	2.3	.8	32
.5	10	1.6	130	.4	4.4	.9	42
.6	16	2.0	187	.5	6.0	1.1	65
.7	24	2.6	280	.6	15	1.3	90
.8	33	3.4	419	Note.--Same as preceding table above 1.3 feet.			
.9	43	4.5	630				

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	3.6	3.3	b3.6	b5.0	111	370	61	133	30	2.0	2.3
2	3.6	3.6	3.3	b3.5	b5.0	103	269	60	123	28	2.0	2.3
3	3.5	3.6	3.3	b3.0	b5.5	134	129	63	106	27	2.0	2.3
4	3.5	3.6	2.8	b3.2	b5.5	127	90	63	102	25	2.2	2.3
5	3.5	4.0	3.5	b3.5	b6.0	90	93	171	102	23	3.1	2.5
6	3.8	4.0	3.0	b3.5	b6.5	50	152	119	110	21	2.5	2.5
7	4.3	4.2	3.6	b3.5	b7.0	*43	113	64	91	21	2.5	2.5
8	4.0	4.3	3.6	b3.5	b7.5	42	71	58	78	19	2.3	2.7
9	3.8	6.2	3.3	b3.5	b8.5	35	53	58	72	18	2.3	3.4
10	4.0	6.7	b3.1	b3.5	9.4	30	50	55	66	18	2.3	3.1
11	4.0	4.5	b3.3	b3.2	11	22	51	55	73	17	2.3	2.9
12	3.8	5.0	b3.1	b3.0	12	21	57	60	76	16	a2.3	2.7
13	3.8	5.0	3.8	b3.0	*10	18	75	72	66	14	a2.3	2.5
14	3.8	5.0	3.8	b3.2	28	18	61	91	60	13	a2.3	2.7
15	3.8	4.5	4.0	b3.5	63	79	72	117	60	11	a2.3	2.7
16	3.8	4.5	4.0	b7.0	138	150	63	126	70	9.4	a2.3	3.1
17	3.8	4.5	4.0	b15	181	623	59	144	59	8.0	a2.3	3.1
18	3.8	4.5	4.2	31	225	214	57	120	57	6.2	a2.3	3.1
19	3.8	4.3	b3.6	56	332	377	54	119	52	5.5	a2.3	3.6
20	3.6	4.3	b3.5	*158	242	192	59	131	50	5.1	a2.3	3.6
21	3.6	4.3	b4.0	406	91	103	70	148	58	4.8	a2.3	3.4
22	3.8	4.0	b4.3	338	68	205	69	176	52	4.4	2.3	3.4
23	3.8	4.0	4.2	276	89	115	64	186	48	4.2	2.3	3.4
24	3.6	4.0	b4.2	43	546	67	53	176	53	3.8	2.5	3.4
25	3.6	3.8	b3.6	b30	508	71	51	155	48	3.6	2.5	3.1
26	3.5	3.6	b4.0	b25	390	75	52	148	39	3.1	2.3	3.1
27	3.5	3.3	4.0	b20	304	55	60	158	36	2.7	2.3	3.4
28	3.5	3.6	4.2	15	157	65	52	150	35	2.3	2.2	3.4
29	3.6	3.8	4.2	b10	-	80	45	140	34	2.2	2.2	3.6
30	3.5	3.5	4.3	b6.0	-	231	48	154	32	2.1	2.2	3.8
31	3.5	-	b3.6	b5.0	-	362	-	150	-	2.0	2.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	115.5	4.3	3.5	3.73	229
November	128.2	6.7	3.3	4.27	254
December	114.9	4.3	2.8	3.71	228
Calendar year 1949	18,661.7	738	2.6	51.1	37,010
January	1,493.4	406	3.0	48.2	2,960
February	3,480.9	546	5.0	124	6,860
March	3,908	623	18	126	7,750
April	2,562	370	45	85.4	5,080
May	3,546	166	55	114	7,040
June	2,041	133	32	68.0	4,050
July	370.4	30	2.0	11.9	735
August	71.6	3.1	2.0	2.31	142
September	89.9	3.8	2.3	3.00	178
Water year 1949-50	17,903.8	623	2.0	49.1	35,510

Peak discharge (base, 400 sec.-ft.).--Jan. 21 (10 p.m.) 540 sec.-ft.; Feb. 19 (9 p.m.) 537 sec.-ft.; Feb. 24 (8 p.m.) 832 sec.-ft.; Mar. 17 (1 p.m.) 1,020 sec.-ft.; Mar. 31 (10:30 p.m.) 610 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Deep Creek above Adel and Honey Creek near Plush.
b Stage-discharge relation affected by ice.

Deep Creek above Adel, Oreg.

Location.--Water-stage recorder, lat. 42°11', long. 119°59', in E½ sec. 15, T. 39 S., R. 23 E., a third of a mile downstream from Drake Creek and 5 miles west of Adel. Datum of gage is 4,965 feet above mean sea level (river-profile survey).
Drainage area.--249 square miles.
Records available.--September 1922 to September 1923 and October 1932 to September 1950 in reports of Geological Survey. September 1922 to September 1923 and October 1929 to September 1941 in reports of State engineer.
Average discharge.--22 years (1922-23, 1929-50), 104 second-feet.
Extremes.--Maximum discharge during year, 810 second-feet Mar. 17 (gage height, 3.76 feet); minimum, 6 second-feet sometime between Dec. 11-13.
1922-23, 1932-50: Maximum discharge, 5,030 second-feet Dec. 11, 1937 (gage height, 7.5 feet, from floodmark), from rating curve extended above 1,200 second-feet on basis of velocity-area studies; minimum, 1.7 second-feet July 20, 27-29, 1934.
Remarks.--Records good except those for periods of no gage-height record, which are poor. Diversions above station for irrigation.

Rating table, water year 1949-50 (gage height, in feet, and discharge, in second-feet)

0.5	11	1.1	54	2.6	355
.6	15	1.3	77	3.0	485
.7	20	1.5	106	3.5	690
.8	27	1.8	159		
.9	35	2.2	245		

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	16	23	a16	a15	222	432	457	443	87	16	11
2	13	16	21	a14	a16	213	493	440	409	81	16	11
3	14	16	18	a13	a17	250	394	418	373	77	16	11
4	13	16	20	a14	a18	295	340	379	343	78	18	11
5	16	16	18	a15	a20	285	331	415	313	70	21	11
6	18	16	18	a15	a25	198	478	426	337	58	18	11
7	18	16	20	a15	a35	170	403	334	370	51	18	11
8	18	20	18	a15	a45	161	304	328	331	43	17	13
9	18	26	16	a15	*a60	116	258	340	282	39	16	13
10	29	21	15	a15	84	96	225	358	248	37	16	13
11	31	23	a15	a14	73	96	225	352	282	36	16	14
12	24	23	a18	a13	63	93	278	385	298	35	16	12
13	18	22	a20	a13	57	95	478	426	301	34	15	12
14	16	24	24	a13	53	96	394	553	258	31	15	12
15	16	22	20	a15	112	108	331	637	225	29	14	12
16	16	23	*19	a20	150	146	379	621	310	26	14	15
17	16	22	16	a40	144	562	457	668	260	24	13	15
18	16	21	14	a60	167	298	489	581	225	23	12	16
19	15	20	14	a100	202	232	497	541	200	22	12	18
20	18	21	a13	*a200	192	205	561	545	184	21	12	16
21	18	20	a14	270	138	188	650	565	202	21	11	15
22	18	19	a15	316	117	270	658	601	196	20	12	14
23	18	21	a17	265	124	188	593	637	180	20	11	14
24	18	29	a20	90	286	155	505	621	218	19	12	14
25	18	33	a18	a50	478	138	485	569	200	19	12	13
26	17	29	a20	a25	394	131	468	517	161	18	12	13
27	17	26	a21	a20	331	100	489	501	136	17	12	14
28	17	33	a23	a18	240	108	403	497	98	16	12	14
29	17	30	a25	a17	-	114	361	468	96	16	12	15
30	16	26	a20	a16	-	205	379	478	96	16	11	16
31	16	-	a18	a15	-	325	-	478	-	16	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	547	31	13	17.6	1,080
November	666	33	16	22.2	1,320
December	571	25	13	18.4	1,150
Calendar year 1949	42,427	1,060	9	116	84,150
January	1,737	316	13	56.0	3,450
February	3,656	478	15	131	7,250
March	5,859	562	93	189	11,620
April	12,738	658	225	425	25,270
May	15,136	668	328	488	30,020
June	7,575	443	96	252	15,020
July	1,100	87	16	35.5	2,180
August	439	21	11	14.2	871
September	400	18	11	13.3	793
Water year 1949-50	50,424	668	11	138	100,000

Peak discharge (base, 600 sec.-ft.).--Feb. 25 (10 p.m.) 633 sec.-ft.; Mar. 17 (3 p.m.) 810 sec.-ft.; Mar. 22 (7 a.m.) 735 sec.-ft.; May 17 (9 a.m.) 740 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Twentymile Creek near Adel, Drake Creek near Adel, and Camas Creek near Lakeview.
Note.--Stage-discharge relation affected by ice at times during periods of no gage-height record.

Camas Creek near Lakeview, Oreg.

Location.--Water-stage recorder, lat. 42°13', long. 120°06', in N½ sec. 2, T. 39 S., R. 22 E., 0.2 mile downstream from Blue Creek and 12 miles east of Lakeview.

Drainage area.--63 square miles.

Records available.--September 1912 to May 1915, December 1949 to September 1950.

Extremes.--Maximum discharge during year, 340 second-feet Apr. 22 (gage height, 3.46 feet); minimum, 3.0 second-feet Jan. 3, 4, 12-14, Sept. 2, but may have been less during periods of ice effect; minimum gage height, 0.51 foot Sept. 2.
1912-14, 1949-50: Maximum discharge, 454 second-feet Apr. 10, 1914 (gage height, 4.47 feet, site and datum then in use); minimum, 2 second-feet Sept. 17-23, 1913.

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

Revisions.--W 410: Drainage area.

Rating table, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 21-30)

0.5	2.8	1.1	20	2.4	138
.6	4.4	1.3	30	2.8	201
.7	6.5	1.5	43	3.3	300
.8	9.1	1.8	68		
.9	12	2.1	99		

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	4.0	7.0	91	152	176	65	15	5.7	3.8
2			-	3.5	7.0	83	206	162	58	13	5.4	3.6
3			-	3.0	7.5	109	171	148	53	12	5.7	3.6
4			-	3.0	8.0	123	158	125	49	12	6.5	3.6
5			-	3.5	9.0	121	160	144	45	11	7.0	3.6
6			-	3.5	10	*80	223	144	49	11	5.9	3.8
7			-	3.5	12	63	171	120	59	10	5.9	3.9
8			-	3.5	14	53	124	127	59	10	5.4	4.4
9			-	3.5	*16	36	107	141	52	9.7	5.2	4.4
10			-	3.5	18	34	96	150	44	9.4	5.2	4.2
11			-	3.5	19	40	99	152	56	9.4	5.7	3.9
12			-	3.0	20	36	134	a160	61	9.1	5.4	3.9
13			-	3.0	18	37	215	a180	65	9.1	5.2	3.8
14			-	3.0	18	28	164	a200	52	8.8	5.0	3.6
15			-	4.0	20	31	142	a210	45	8.6	5.0	3.9
16			*4.5	5.0	26	34	170	a220	79	8.6	4.8	3.8
17			4.0	7.0	28	102	212	a180	56	8.3	4.6	3.9
18			4.0	10	28	80	225	a160	44	8.6	4.4	4.2
19			4.0	*20	33	49	230	a140	37	7.8	4.4	4.6
20			3.5	50	36	55	256	a130	33	7.5	4.2	4.4
21			3.5	80	33	53	285	a140	44	7.3	4.2	4.2
22			4.0	114	33	75	285	a150	36	7.0	4.2	4.2
23			4.5	79	35	52	254	a140	30	6.8	4.2	4.4
24			4.5	52	78	42	219	128	40	6.5	4.4	4.1
25			4.0	35	119	39	210	115	35	6.3	4.4	4.1
26			4.0	25	125	40	201	104	30	6.1	4.4	4.4
27			4.0	20	109	30	206	97	26	5.9	4.2	4.4
28			4.0	15	101	35	168	89	22	5.7	4.2	4.4
29			4.0	10	-	37	148	82	20	5.7	4.1	5.0
30			4.0	9.0	-	56	158	76	18	5.9	4.1	5.0
31			4.0	7.0	-	89	-	70	-	5.9	3.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December 16-31	64.5	4.5	3.5	4.03	128
Calendar year	-	-	-	-	-
January	589.0	114	3.0	19.0	1,170
February	987.5	125	7.0	35.3	1,960
March	1,833	123	28	59.1	3,640
April	5,549	285	96	185	11,010
May	4,360	220	70	141	8,650
June	1,362	79	18	45.4	2,700
July	268.0	15	5.7	8.65	532
August	152.9	7.0	3.9	4.93	303
September	123.1	5.0	3.6	4.10	244
The period	-	-	-	-	30,340

Peak discharge (base, 200 sec.-ft.).--Apr. 2 (3 a.m.) 232 sec.-ft.; Apr. 6 (10 a.m.) 234 sec.-ft.; Apr. 13 (11 a.m.) 232 sec.-ft.; Apr. 22 (2 a.m.) 340 sec.-ft.; May 16 (time and discharge unknown).

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Deep Creek above Adel and Drake Creek near Adel.

Note.--Stage-discharge relation affected by ice Dec. 16 to Jan. 21, Jan. 25 to Feb. 11, Feb. 17, 22 (no gage-height record Feb. 1-8).

Drake Creek near Adel, Oreg.

Location.--Water-stage recorder, lat. 42°12', long. 120°01', in N½ sec. 9, T. 39 S., R. 23 E., a quarter of a mile above Parsnip Creek, 1 mile above mouth, and 6½ miles west of Adel.
Drainage area.--About 47 square miles.
Records available.--March to May 1915, December 1922 to May 1923, December 1949 to September 1950.
Extremes.--Maximum discharge during year, 380 second-feet Mar. 17 (gage height, 3.10 feet), from rating curve extended above 30 second-feet by logarithmic plotting; minimum not determined; minimum daily discharge, 2.5 second-feet Jan. 2-4, 12-14.
1915, 1922-23, 1949-50: Maximum discharge, that of Mar. 17, 1950; minimum, that of Jan. 2-4, 12-14, 1950.
Remarks.--Records good except those for period of shifting control and those above 60 second-feet, which are fair, and those for periods of ice effect or no gage-height record, which are poor. No diversion or regulation above station.

Rating table, water year 1949-50, except periods of ice effect or shifting control
(gage height, in feet, and discharge, in second-feet)

0.5	4.5	0.9	19	1.7	89
.6	7.0	1.0	25	2.0	132
.7	10	1.2	39	2.3	190
.8	14	1.4	56	2.6	250

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	b3.0	a5.0	20	68	14	6.2	6.0	5.8	4.8
2			-	b2.5	a5.0	19	43	17	6.0	6.8	6.0	4.8
3			-	b2.5	a5.0	22	25	18	6.2	9.0	6.0	4.8
4			-	b2.5	a5.0	26	17	22	6.5	7.3	6.5	4.8
5			-	b3.0	a5.5	18	14	44	6.5	6.0	6.8	4.8
6			-	b3.0	a5.5	13	15	57	7.0	5.8	6.2	5.0
7			-	b3.0	a6.0	10	18	31	8.6	5.8	6.0	5.2
8			-	b3.0	a6.0	8.3	14	33	8.0	5.8	6.0	5.8
9			-	b3.0	*a6.5	8.0	12	32	8.0	5.8	5.8	5.8
10			-	b3.0	a7.0	7.7	10	28	10	5.8	5.8	5.8
11			-	b3.0	a8.0	12	9.6	17	12	5.8	6.0	5.8
12			-	b2.5	a9.0	10	9.3	12	8.6	6.0	6.0	5.5
13			-	b2.5	a12	8.0	14	9.0	8.3	6.2	6.0	5.5
14			-	b2.5	16	7.3	14	10	7.7	6.0	6.0	5.8
15			-	b3.0	48	15	14	9.0	7.0	5.8	6.0	5.8
16			*b4.0	b4.0	60	26	13	8.6	8.3	5.8	6.0	6.0
17			b3.5	b10	49	240	12	8.0	8.3	5.2	6.0	5.8
18			b3.5	b20	60	44	11	8.0	7.3	5.2	6.0	6.0
19			b3.0	*b50	75	50	10	8.0	7.0	5.2	5.8	6.0
20			b3.0	56	60	35	11	6.8	6.8	5.2	5.8	5.5
21	†6.2		b3.0	61	34	24	13	6.8	7.3	5.0	5.5	5.5
22			b3.0	59	26	51	13	6.8	6.8	5.0	5.5	5.5
23			b3.0	61	28	25	12	10	8.6	5.5	5.5	5.5
24			b3.0	43	70	20	12	15	12	5.5	5.5	5.8
25			b3.0	b35	110	17	12	8.6	7.3	5.8	5.5	5.8
26			b3.5	b25	82	14	12	7.0	6.8	5.8	5.2	6.0
27			b4.0	b20	52	11	12	6.5	6.2	6.0	5.2	5.8
28			b4.0	b15	24	11	11	6.5	6.2	5.8	5.0	5.8
29			b4.0	b10	-	11	11	6.5	6.0	5.8	5.0	5.8
30			b3.5	b8.0	-	54	11	6.5	6.0	6.0	5.0	5.5
31			b3.0	a5.0	-	68	-	6.2	-	5.8	5.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December 16-31	54.0	4.0	3.0	3.3e	107
Calendar year	-	-	-	-	-
January	524.0	61	2.5	16.9	1,040
February	879.5	110	5.0	31.4	1,740
March	905.3	240	7.3	29.2	1,800
April	472.9	68	9.3	15.8	938
May	478.8	57	6.2	15.4	950
June	227.5	12	6.0	7.58	451
July	182.5	9.0	5.0	5.89	362
August	178.4	6.8	5.0	5.75	354
September	166.3	6.0	4.8	5.54	330
The period	-	-	-	-	8,070

Peak discharge (base, 150 sec.-ft.).--Feb. 25 (10 p.m.) 176 sec.-ft.; Mar. 17 (11 a.m.) 380 sec.-ft.
* Winter discharge measurement made on this day.
† Result of discharge measurement.
a No gage-height record; discharge computed on basis of weather records and records for Deep Creek above Adel, Twentymile Creek near Adel, and Camas Creek near Lakeview.
b Stage-discharge relation affected by ice.
Note.--Shifting-control method used Feb. 14 to Mar. 17.

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Honey Creek near Plush, Oreg.

Location.--Water-stage recorder, lat. 42°25', long. 119°55', in NW¼ sec. 29, T. 36 S., R. 24 E., at mouth of canyon, 1 mile northwest of Plush and 4 miles downstream from Twelvemile Creek.
Drainage area.--156 square miles.
Records available.--May 1909 to September 1914, March to May 1915, March to August 1921, March to June 1922, and October 1949 to September 1950 in reports of Geological Survey. April 1930 to September 1941 in reports of State engineer; October 1941 to September 1949 in files of State engineer.
Average discharge.--20 years (1910-14, 1930-41, 1945-50), 23.4 second-feet.
Extremes.--Maximum discharge during year, 194 second-feet Feb. 16; maximum gage height, 3.34 feet Apr. 22 (backwater from beaver dam); minimum discharge, 0.2 second-foot Oct. 1-3, Aug. 29 to Sept. 7.
1909-15, 1921-22, 1930-50: Maximum discharge, about 3,840 second-feet Apr. 15, 1915 (gage height, 9.20 feet, site and datum then in use), due to breaking of a storage dam on Snyder Creek. Maximum discharge due to natural causes, 2,240 second-feet Feb. 24, 1910 (gage height, 6.30 feet, site and datum then in use); no flow at times.
Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. About 1,100 acres are irrigated above station.
Revisions.--W 410: Drainage area.

Rating table, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Backwater from beaver dam Oct. 1-13, Apr. 1 to May 18, Aug. 21-31, Sept. 7-30)

0.3	0.2	0.8	7.4	1.5	42
.4	.5	.9	11	2.0	76
.5	1.1	1.0	16	2.5	117
.6	2.4	1.1	20	2.9	156
.7	4.2	1.3	30		

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	1.0	1.4	1.6	b2.0	15	43	84	69	16	1.9	0.2
2	.2	1.0	1.1	1.5	b2.0	20	47	78	64	13	1.6	.2
3	.2	1.0	1.0	1.5	b2.0	20	41	74	61	14	1.5	.2
4	.3	1.0	.8	b1.6	b2.5	24	39	75	54	12	2.3	.2
5	.3	1.0	1.0	b1.7	b2.5	24	36	70	49	14	3.7	.2
6	.4	1.0	.9	b1.9	b2.5	19	44	66	57	13	3.5	.2
7	.5	1.0	1.2	b1.9	b2.5	14	48	56	76	12	2.9	.2
8	.6	1.0	1.5	1.9	b3.0	14	39	52	68	11	2.3	.3
9	.7	2.0	1.0	1.9	b3.0	12	34	56	61	9.2	1.9	.3
10	.7	2.6	.9	b1.8	b3.5	11	28	67	50	13	1.6	.3
11	.9	1.9	.6	b1.6	b3.5	7.4	25	72	51	12	1.5	.3
12	.7	1.9	.9	b1.5	b4.0	8.8	22	92	54	10	1.5	.3
13	.6	1.9	1.0	b1.5	*5.2	9.2	46	99	64	9.2	1.4	.3
14	.6	1.9	1.1	a1.5	6.1	9.2	57	134	54	6.4	1.2	.3
15	.6	2.0	1.1	a1.5	26	10	46	144	54	5.2	1.0	.3
16	.6	1.9	1.4	a1.6	68	15	51	136	81	5.2	.9	.3
17	.6	1.8	1.4	a2.0	33	72	72	152	76	4.8	.7	.3
18	.6	1.5	1.4	a3.0	26	35	90	129	53	4.2	.7	.3
19	.7	1.2	1.2	a4.0	26	26	90	117	43	3.8	.6	.4
20	.7	1.1	1.2	*7.4	21	20	114	114	36	3.7	.5	.4
21	.9	1.0	1.4	14	14	18	152	115	39	3.5	.5	.4
22	1.0	1.0	1.5	20	13	45	150	121	38	3.3	.4	.4
23	1.0	.9	1.6	24	13	34	122	118	33	2.9	.4	.4
24	.9	1.0	1.9	a15	20	26	91	110	43	2.9	.4	.5
25	.9	1.4	1.2	8.1	33	24	90	99	43	2.9	.4	.5
26	.9	1.1	1.6	b5.0	31	20	89	92	40	2.6	.3	.5
27	1.0	1.0	1.6	b4.0	28	16	92	86	27	2.4	.3	.5
28	1.0	1.2	1.8	b3.0	20	15	78	80	23	2.1	.3	.6
29	1.0	2.3	1.9	b2.5	-	14	65	76	20	1.9	.2	.8
30	1.0	1.6	1.9	b2.0	-	20	69	75	19	1.8	.2	1.0
31	1.0	-	1.6	b2.0	-	35	-	73	-	1.9	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	21.3	1.0	0.2	0.69	42
November	42.2	2.6	.9	1.41	84
December	40.1	1.9	.6	1.29	80
Calendar year 1949	9,521.1	342	-	26.1	18,880
January	142.5	24	1.5	4.60	283
February	416.3	68	2.0	14.9	826
March	652.6	72	7.4	21.1	1,290
April	2,010	152	22	67.0	3,990
May	2,912	152	52	93.9	5,780
June	1,500	81	19	50.0	2,980
July	219.9	16	1.8	7.09	436
August	36.8	3.7	.2	1.19	73
September	11.1	1.0	.2	.37	22
Water year 1949-50	8,004.8	152	.2	21.9	15,890

Peak discharge (base, 150 sec.-ft.).--Feb. 16 (1 a.m.) 194 sec.-ft.; Mar. 17 (3:30 p.m.) 161 sec.-ft.; Apr. 22 (5:30 a.m.) 188 sec.-ft.; May 15 (5:30 a.m.) 164 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Twentymile Creek near Adel and Deep Creek above Adel.
b Stage-discharge relation affected by ice.

Chewaucan River above Conn ditch, near Paisley, Oreg.

Location.--Water-stage recorder, lat. 42°41', long. 120°35', in SW¼ sec. 27, T. 33 S., R. 18 E., at bridge 20 feet downstream from former power plant of Paisley Electric Co., 700 feet upstream from diversion dam of Conn ditch, a quarter of a mile downstream from Mill Creek, and 2½ miles west of Paisley. Datum of gage is 4,504.9 feet above mean sea level (river-profile survey).
Drainage area.--275 square miles.
Records available.--April to September 1912, May 1924 to September 1950. January 1905 to December 1907 and January 1909 to April 1912 at site 2 miles downstream, below Conn ditch. November 1912 to September 1921 at site half a mile upstream, above Mill Creek. Records of yearly runoff at these sites practically equivalent.
Average discharge.--40 years (1905-7, 1909-21, 1924-50), 131 second-feet.
Extremes.--Maximum discharge during year, 821 second-feet May 23; maximum gage height, 5.70 feet Jan. 21 (ice jam); minimum discharge recorded, 17 second-feet Oct. 20.
1905-7, 1909-21, 1924-50: Maximum discharge, 4,000 second-feet Nov. 23, 1909 (gage height, 9.40 feet, site and datum then in use), from rating curve extended above 900 second-feet; no flow part of Dec. 7, 1927, Dec. 12, 1932 (frozen).
Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. About 160 acres are irrigated above station.
Revisions.--W 860: Drainage area.

Rating tables, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Backwater from debris Oct. 15 to Nov. 8)

Oct. 1 to Feb. 13				Feb. 14 to Sept. 30					
1.4	20	1.8	57	1.4	19	1.8	53	2.7	225
1.5	27	2.0	84	1.5	25	2.0	80	3.0	325
1.6	35	2.2	117	1.6	33	2.2	114	3.4	505
1.7	45	2.4	154	1.7	42	2.4	155	3.9	800

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	31	a45	b30	b25	151	215	406	582	a140	36	24
2	30	31	a40	b25	a25	153	225	345	555	a135	35	24
3	30	31	a35	b25	a25	195	218	314	515	a130	34	24
4	30	31	a40	b30	a30	200	202	290	470	a125	36	24
5	44	31	a35	b30	a30	200	215	258	446	a115	38	24
6	50	31	a35	b30	a35	157	286	246	480	a100	38	25
7	43	32	a40	b30	a40	128	234	228	442	a90	33	25
8	39	35	*45	b30	a45	*130	205	220	392	a85	31	28
9	38	50	31	a30	a60	116	182	215	345	a80	31	32
10	56	34	36	a30	a100	110	175	240	314	a75	32	30
11	47	47	b40	a30	a85	85	173	262	401	69	33	27
12	40	41	b40	a25	a75	84	198	325	357	67	36	27
13	37	40	b41	a25	a70	98	258	383	333	66	35	26
14	36	45	45	a25	*a66	98	220	505	286	62	34	26
15	36	40	45	a25	b75	93	220	582	258	58	32	27
16	36	43	41	a25	b85	98	258	616	297	56	31	27
17	33	40	37	a30	b95	214	314	670	308	54	31	28
18	32	37	36	b40	105	138	341	a720	252	52	30	31
19	33	36	b35	b50	110	130	349	a700	234	46	30	31
20	31	37	b30	b80	a150	120	406	a700	222	43	28	30
21	35	a36	b30	*b110	a120	130	480	682	215	43	27	28
22	37	a35	b35	b150	a100	297	485	718	198	43	27	28
23	37	a40	b35	b100	a150	149	446	765	184	40	27	27
24	34	a50	b40	a70	195	136	388	765	184	41	29	27
25	33	a60	b40	a50	266	120	378	724	h173	41	28	27
26	33	a55	b40	b40	222	122	378	688	a165	40	27	27
27	32	a50	b45	b35	220	107	401	682	a160	39	27	28
28	33	a60	b50	b35	153	109	365	664	a155	38	27	29
29	33	a55	52	b30	-	105	325	628	a150	37	26	29
30	32	a50	b40	b30	-	144	341	622	a145	38	26	30
31	31	-	b35	b25	-	179	-	616	-	37	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,121	56	30	36.2	2,220
November	1,234	60	31	41.1	2,450
December	1,214	52	30	39.2	2,410
Calendar year 1949	44,775	724	25	123	88,830
January	1,320	150	25	42.6	2,620
February	2,757	266	25	98.5	5,470
March	4,296	297	84	139	8,520
April	8,881	485	173	296	17,620
May	15,779	765	215	509	31,300
June	9,198	582	145	307	18,240
July	2,085	140	37	67.3	4,140
August	959	38	24	30.9	1,900
September	820	32	24	27.3	1,630
Water year 1949-50	49,664	765	24	136	98,520

Peak discharge (base, 500 sec.-ft.).--Apr. 22 (4:30 a.m.) 545 sec.-ft.; May 23 (9 a.m.) 821 sec.-ft.; June 11 (3 p.m.) 520 sec.-ft.
* 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 Deep Creek above Adel and Silver Creek near Silver Lake.
b Stage-discharge relation affected by ice.
h Computed from staff-gage reading.

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 1950.
Average discharge.--38 years (1905-6, 1909-27, 1929-41, 1943-50), including Silver Lake Irrigation District Canal, 23.5 second-feet.
Extremes.--Maximum discharge during year, 69 second-feet May 24 (gage height, 2.69 feet); minimum, 2.3 second-feet Nov. 4, 5.
1904-7, 1909-50: Maximum discharge, 1,800 second-feet Mar. 20, 1907 (gage height, 9.08 feet, datum then in use), from rating curve extended above 700 second-feet; no flow at times in 1931, 1932, 1934, 1937.
Remarks.--Records good except those for periods of ice effect, which are poor. Flow regulated by reservoir (capacity, 800 acre-feet) above diversion dam 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.

Rating table, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 1 to Sept. 30)

1.6	1.5	1.9	11	2.3	37
1.7	3.4	2.0	17	2.5	53
1.8	6.5	2.1	23	2.7	70

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	2.6	5.0	3.7	b3.0	19	30	32	59	44	26	16
2	3.4	2.4	5.0	b3.5	b3.0	20	38	33	58	44	22	3.7
3	3.4	2.4	5.0	b3.0	*b3.0	21	40	33	57	44	9.2	3.7
4	3.4	2.3	5.0	b2.5	b3.5	24	39	31	55	43	11	3.4
5	3.4	2.4	5.0	b2.5	b3.5	28	38	30	54	43	12	3.5
6	3.4	2.6	5.0	b2.5	b4.0	31	39	29	54	43	12	3.4
7	3.4	2.8	4.6	b3.0	b4.0	27	38	28	53	43	13	3.4
8	3.4	3.0	4.6	b3.0	b4.5	25	35	27	52	46	13	3.4
9	3.4	3.2	4.6	b3.0	b4.5	23	31	30	51	47	13	3.4
10	3.4	3.2	4.6	b3.0	5.0	21	29	32	49	47	13	3.4
11	3.4	3.4	4.3	b3.0	5.0	19	26	31	52	47	12	3.4
12	3.4	3.7	4.3	b2.5	5.0	18	24	36	56	46	12	3.4
13	8.4	4.0	4.3	b2.5	5.0	17	25	47	55	45	12	3.2
14	3.4	4.0	4.3	b2.5	5.3	17	26	51	53	43	12	3.2
15	3.2	4.0	4.3	b2.5	5.0	16	26	53	51	39	12	3.2
16	3.2	4.3	4.3	b2.5	5.3	16	26	57	48	36	12	3.2
17	3.2	4.3	4.3	b2.5	5.0	18	29	59	48	34	12	3.2
18	3.2	4.6	4.3	b2.5	5.3	22	31	64	47	33	12	3.2
19	3.0	5.0	4.3	b3.0	5.3	22	33	65	46	32	12	3.2
20	3.0	5.3	4.6	b3.0	5.6	22	36	65	45	30	13	3.0
21	3.0	5.3	4.6	b3.5	5.9	24	38	65	44	29	22	3.0
22	3.0	5.3	4.6	4.3	5.9	34	38	66	43	29	22	3.0
23	2.6	5.3	4.6	b4.0	5.9	37	36	67	42	28	22	3.0
24	2.8	5.0	4.3	b4.0	6.2	31	35	68	42	29	23	2.8
25	2.8	5.0	4.3	b4.0	9.2	28	34	67	40	29	23	2.6
26	2.8	5.0	4.3	b3.5	16	26	34	66	39	29	22	2.6
27	2.8	5.3	4.3	b3.5	21	24	34	66	39	28	22	3.0
28	2.8	5.0	4.3	b3.5	21	23	33	65	40	28	22	3.0
29	2.6	5.0	4.0	b3.5	-	22	32	64	41	27	22	2.8
30	2.6	5.0	3.7	b3.0	-	22	31	63	43	27	22	2.8
31	2.6	-	3.7	b3.0	-	26	-	61	-	26	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	96.8	3.4	2.6	3.12	192
November	120.7	5.3	2.3	4.02	239
December	138.4	5.0	3.7	4.46	275
Calendar year 1949	6,763.3	59	1.2	18.5	13,410
January	96.0	4.3	2.5	3.10	190
February	180.9	21	3.0	6.46	359
March	723	37	16	23.3	1,430
April	984	40	24	32.8	1,950
May	1,551	68	27	50.0	3,080
June	1,456	59	39	48.5	2,890
July	1,138	47	26	36.7	2,260
August	509.2	26	9.2	16.4	1,010
September	108.1	16	2.6	3.60	214
Water year 1949-50	7,102.1	68	2.3	19.5	14,090

* Winter discharge measurement made on this day.
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 1950.
Average discharge.--37 years (1903-5, 1909-12, 1917-21, 1922-50), 148 second-feet.
Extremes.--Maximum discharge during year, 1,150 second-feet Apr. 23 (gage height, 10.17 feet); minimum, 5 second-feet Sept. 5-9, 12-18.
1903-6, 1908-50: Maximum discharge, 4,730 second-feet Apr. 15, 1904 (gage height, 17.12 feet, site and datum then in use); no flow July 19 to Sept. 22, 1934.
Remarks.--Records fair except those for periods of ice effect or no gage-height record, which are poor. Small areas on Silvies River above station are irrigated with flood water.
Revisions.--W 860: Drainage area.

Rating tables, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Backwater from debris Oct. 1-31. Backwater from beaver dam Sept. 8-30)

Oct. 1 to Nov. 20				Nov. 21 to Sept. 30					
0.5	7	0.3	5	1.0	26	3.0	182	7.0	680
.6	9	.4	7	1.2	36	3.5	237	8.0	820
.7	12	.5	9	1.5	54	4.0	293	9.0	960
.8	14	.6	12	1.9	81	5.0	416	10.0	1,120
1.0	23	.8	18	2.4	123	6.0	546		
1.2	32								

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	22	43	31	20	*110	389	665	152	84	17	6
2	9	22	40	30	20	130	586	714	142	78	16	6
3	9	23	34	29	22	170	540	677	134	70	16	6
4	10	23	37	27	25	259	520	641	128	53	15	6
5	12	22	33	25	35	279	526	604	137	44	15	6
6	12	22	34	25	40	269	567	572	131	38	15	5
7	13	22	*32	26	38	269	612	555	134	37	16	5
8	14	24	31	28	35	252	624	540	146	37	16	5
9	14	27	28	30	33	237	604	510	151	43	15	6
10	14	28	28	27	32	225	599	478	154	40	15	6
11	14	28	26	25	31	197	593	469	167	37	14	6
12	16	29	26	23	30	185	652	467	188	34	14	6
13	16	29	28	23	30	180	771	473	170	35	16	5
14	16	28	30	23	30	183	830	468	161	30	15	5
15	15	28	30	23	30	175	806	474	165	32	14	5
16	15	28	30	23	30	177	854	458	197	30	13	5
17	15	28	32	24	30	230	897	467	189	28	11	6
18	15	26	34	25	30	305	945	448	179	26	11	6
19	15	26	34	30	31	324	974	415	177	24	10	6
20	14	26	a32	35	33	335	992	387	169	24	9	6
21	18	28	a30	35	35	329	1,070	355	158	24	8	6
22	19	32	a30	35	38	353	1,120	334	156	24	8	6
23	19	32	a30	32	40	359	1,090	295	148	23	7	6
24	19	37	a30	30	*47	318	999	268	153	22	7	7
25	19	37	a30	30	50	273	908	244	146	25	7	7
26	20	38	30	30	60	255	855	248	136	24	7	7
27	20	41	30	28	70	230	812	227	129	22	7	8
28	20	46	31	26	90	200	775	206	120	22	7	8
29	20	46	32	25	-	154	726	202	110	20	7	8
30	20	44	32	22	-	162	676	193	97	17	6	8
31	20	-	31	20	-	239	-	171	-	17	6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	480	20	8	15.5	952
November	892	46	22	29.7	1,770
December	978	43	26	31.5	1,940
Calendar year 1949	58,461	1,060	7	160	115,900
January	845	35	20	27.3	1,680
February	1,035	90	20	37.0	2,050
March	7,363	359	110	238	14,600
April	22,912	1,120	389	764	45,450
May	13,225	714	171	427	26,230
June	4,524	197	97	151	8,970
July	1,064	84	17	34.3	2,110
August	360	17	6	11.6	714
September	184	8	5	6.1	365
Water year 1949-50	53,862	1,120	5	148	106,800

Peak discharge (base, 500 sec.-ft.).--Apr. 23 (1 a.m.) 1,150 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Malheur River near Drewsey.
Note.--Stage-discharge relation affected by ice Nov. 19-21, Dec. 26 to Mar. 3 (no gage-height record Feb. 1-3).

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 1950. 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.--20 years (1911-13, 1914-16, 1917-21, 1938-50), 123 second-feet.

Extremes.--Maximum discharge during year, 793 second-feet Mar. 17 (gage height, 4.09 feet); minimum, 13 second-feet Dec. 11 (gage height, 1.64 feet), but may have been less during periods of ice effect.

1909-21, 1937-50: Maximum discharge, 2,870 second-feet May 5, 1942 (gage height, 5.85 feet), from rating curve extended above 1,100 second-feet by velocity-area studies and logarithmic plotting; minimum, 8 second-feet (ice jam upstream) Jan. 14, 1940.

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

Cooperation.--Water-stage recorder inspected by employee of Fish and Wildlife Service.

Revisions.--W 330: Drainage area (former site). W 860: Drainage area (present site).

Rating table, water year 1949-50, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.7	15	2.2	47	3.0	209
1.8	19	2.4	71	3.3	330
1.9	24	2.6	104	3.6	480
2.0	30	2.8	149	3.8	600

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	36	38	b25	b20	48	184	171	415	220	50	35
2	34	37	38	b25	b25	49	163	157	420	203	49	35
3	33	37	b31	b23	b29	57	117	149	348	171	49	33
4	33	37	b36	b23	b35	*62	108	135	348	163	54	34
5	35	37	b38	b20	b40	61	106	194	375	155	59	34
6	36	37	b34	b23	b35	b52	114	207	362	144	54	35
7	36	37	39	b26	b30	b45	108	166	261	137	49	35
8	36	41	36	b29	b29	b52	106	157	223	123	46	36
9	36	42	32	b27	b29	52	97	139	216	114	46	37
10	43	40	*b25	b32	b29	50	93	163	245	110	45	37
11	40	39	b19	b27	b28	46	88	190	294	100	44	36
12	45	38	b25	b24	b25	45	106	216	348	93	43	36
13	41	38	b37	b30	b30	48	135	257	308	88	42	36
14	38	38	b35	b30	b40	49	121	316	281	86	42	36
15	38	38	b37	b25	74	57	121	385	312	84	42	36
16	37	38	b37	b28	b85	90	135	366	303	82	41	37
17	36	38	b35	b33	89	423	155	395	316	76	40	37
18	36	37	b30	b36	58	116	190	352	308	72	39	38
19	36	36	b27	b44	56	256	193	312	308	68	39	39
20	36	36	b25	50	51	152	238	326	316	68	38	38
21	38	36	b40	70	40	124	312	385	357	66	37	37
22	38	36	44	63	39	182	303	469	303	63	37	36
23	37	37	38	63	40	108	257	570	265	62	37	36
24	36	42	b30	33	42	93	203	522	241	61	38	36
25	36	40	b25	28	55	109	190	452	209	59	38	36
26	36	39	b35	*b30	54	118	190	442	187	58	37	37
27	36	39	37	b30	52	98	196	469	187	57	37	37
28	36	42	35	b27	46	76	169	442	209	55	37	37
29	37	41	34	b22	-	109	155	415	220	54	36	38
30	37	40	b30	b22	-	301	155	510	223	52	36	39
31	36	-	b25	b18	-	197	-	436	-	51	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,142	45	33	36.8	2,270
November	1,149	42	36	38.3	2,280
December	1,027	44	19	33.1	2,040
Calendar year 1949	31,830	627	19	87.2	63,160
January	988	70	18	31.9	1,960
February	1,185	85	20	42.3	2,350
March	3,325	423	45	107	6,600
April	4,810	312	88	160	9,540
May	9,865	570	135	318	19,570
June	8,708	420	187	290	17,270
July	2,995	220	51	96.6	5,940
August	1,317	59	36	42.5	2,610
September	1,089	39	33	36.3	2,160
Water year 1949-50	37,600	570	18	103	74,590

Peak discharge (base, 650 sec.-ft.).--Mar. 17 (2:30 p.m.) 793 sec.-ft.; Mar. 30 (9:30 p.m.) 744 sec.-ft.; May 23 (11 p.m.) 652 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

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 1950.

Average discharge.--16 years (1912-16, 1938-50), 14.1 second-feet.

Extremes.--Maximum discharge during year, 38 second-feet Mar. 30 (gage height, 1.37 feet); minimum, 8.8 second-feet Mar. 16.
1911-16, 1937-50: 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 good. No diversion or regulation above station. Low-water 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 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	11	11	11	11	9.7	22	18	14	11	11	12
2	12	11	11	11	11	9.7	22	16	14	11	11	12
3	12	11	11	11	11	9.7	18	15	13	11	12	12
4	12	12	11	11	10	9.2	16	15	13	12	12	12
5	12	12	11	11	11	9.2	16	15	13	12	12	12
6	12	12	11	11	11	9.2	16	14	13	12	12	12
7	12	12	11	11	10	9.2	15	13	14	12	12	12
8	12	12	11	11	10	9.2	14	13	15	12	12	12
9	12	12	11	11	10	9.2	14	15	15	12	12	12
10	12	11	11	11	10	9.2	12	17	17	11	12	12
11	12	11	11	11	10	9.2	12	17	17	11	12	12
12	12	11	11	11	9.7	9.2	12	17	17	11	12	12
13	12	11	11	11	9.7	9.2	12	19	17	11	12	12
14	12	12	11	11	9.7	9.2	14	20	16	11	12	12
15	12	12	11	11	9.7	9.2	16	20	16	12	12	12
16	11	12	11	11	9.7	9.2	18	20	17	12	12	12
17	11	11	11	11	9.7	23	17	20	15	11	12	12
18	11	11	11	11	9.7	12	17	19	14	11	12	12
19	11	11	11	11	9.7	17	17	19	12	11	12	12
20	11	11	11	11	9.7	14	18	19	12	11	12	12
21	11	11	11	11	9.7	14	20	19	11	11	12	12
22	11	11	11	11	9.7	14	21	19	11	11	12	12
23	11	11	11	11	9.7	12	20	20	11	11	12	12
24	11	11	11	11	9.7	12	17	19	12	11	12	12
25	11	11	11	11	9.7	14	18	17	13	11	12	12
26	11	11	11	11	9.7	13	17	17	12	11	12	12
27	11	11	11	11	9.7	12	18	17	11	11	12	12
28	11	11	11	11	9.7	11	17	16	11	11	12	12
29	11	11	11	11	-	11	15	15	11	11	12	12
30	11	11	11	11	-	19	15	15	11	11	12	12
31	11	-	11	11	-	22	-	14	-	11	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	356	12	11	11.5	706
November	339	12	11	11.3	672
December	341	11	11	11.0	676
Calendar year 1949	4,927	29	10	13.5	9,770
January	341	11	11	11.0	676
February	279.9	11	9.7	10.0	555
March	368.7	23	9.2	11.9	731
April	496	22	12	16.5	984
May	529	20	13	17.1	1,050
June	408	17	11	13.6	809
July	349	12	11	11.3	692
August	370	12	11	11.9	734
September	360	12	12	12.0	714
Water year 1949-50	4,537.6	23	9.2	12.4	9,000

Peak discharge (base, 30 sec.-ft.).--Mar. 17 (2 p.m.) 33 sec.-ft.; Mar. 30 (7 p.m.) 38 sec.-ft.

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 1950.

Average discharge.--19 years (1922-23, 1932-50), 13.8 second-feet.

Extremes.--Maximum discharge during year, 88 second-feet May 23 (gage height, 2.98 feet); minimum, 1.5 second-feet between Nov. 1-16.

1911-12, 1922-23, 1925-50: 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 periods of ice effect or no gage-height record, which are poor. Small diversions above station for irrigation.

Rating tables, water year 1949-50, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 14		Feb. 15 to Sept. 30					
1.5	1.6	1.4	2.0	1.8	5.9	2.3	26
1.6	2.8	1.5	2.5	1.9	8.3	2.5	39
1.7	4.5	1.6	3.1	2.0	12	2.7	56
1.8	6.4	1.7	4.1	2.1	15	2.9	78

Discharge, in second-feet, water year October 1949 to September 1950

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	h2.6	4.5	a6.0	5.4	b4.0	4.8	7.1	30	44	9.3	3.7	2.4
2	a3.0	a4.5	a5.5	5.1	b4.0	5.2	9.6	28	42	8.6	3.6	2.4
3	a3.0	a4.5	a4.5	4.9	b4.5	5.5	14	28	36	7.3	3.7	2.2
4	a3.0	a4.5	a4.0	5.1	b4.5	5.7	14	27	34	6.1	4.3	2.2
5	a3.0	a4.5	a4.0	b5.0	b4.5	6.1	13	25	33	5.9	4.5	2.2
6	a3.0	a4.5	a4.5	b5.0	b4.5	6.4	14	25	33	6.1	3.9	2.3
7	a3.0	a4.5	a5.0	b5.0	b4.5	5.2	14	24	30	6.9	3.4	2.4
8	a3.0	a4.5	a5.5	b5.0	b4.5	6.9	14	22	27	8.1	3.1	2.4
9	a3.0	a4.5	*5.4	b5.0	b4.5	6.1	14	20	24	7.1	3.0	3.1
10	a3.0	a4.5	4.0	b4.5	b4.5	5.7	13	19	20	7.3	3.0	3.3
11	a3.5	a4.5	3.0	b4.5	b4.5	5.0	12	21	23	7.8	3.1	2.9
12	a3.5	a4.5	b3.5	b4.5	b5.0	4.5	11	24	25	9.3	3.1	2.7
13	a3.5	a4.5	b4.0	4.3	b5.0	5.2	15	30	22	9.3	3.1	2.7
14	a3.5	a4.5	b5.0	b4.0	b5.0	6.1	16	45	18	8.3	3.0	2.6
15	a3.5	a4.5	5.8	b4.0	5.0	5.4	15	63	21	7.3	2.9	2.6
16	a3.5	h4.3	6.4	b4.0	*5.0	5.5	16	65	20	7.3	2.9	2.6
17	a3.5	a4.3	6.4	b4.0	4.6	6.1	18	71	19	6.9	2.8	3.0
18	a3.5	a4.3	6.2	b4.5	4.3	6.6	21	70	17	6.4	2.6	3.2
19	a3.5	a4.4	5.8	b4.5	4.6	7.8	25	58	16	5.4	2.6	3.4
20	a3.5	a4.4	5.6	b5.0	4.5	7.1	26	56	14	4.6	2.5	3.4
21	a4.0	a4.5	5.6	b5.0	3.9	5.9	33	57	15	4.3	2.5	3.2
22	a4.0	h4.5	6.4	b5.5	4.3	6.6	36	65	14	4.3	2.4	3.0
23	a4.0	a4.5	6.4	b5.5	4.6	6.6	38	73	14	4.1	2.4	2.7
24	a4.0	a4.5	6.2	5.1	4.6	7.6	34	68	20	4.0	2.6	2.6
25	a4.0	a4.7	b6.0	4.5	5.2	7.1	33	55	14	4.0	2.6	2.6
26	a4.0	a4.8	b6.0	b4.5	5.4	5.2	31	50	12	3.8	2.6	2.6
27	a4.0	h4.9	*b6.0	b4.5	5.4	5.2	34	50	11	4.0	2.6	2.6
28	a4.0	a5.0	6.2	b4.5	5.2	5.2	33	52	11	3.8	2.5	2.6
29	a4.5	a5.5	6.2	b4.5	-	4.5	31	45	11	4.0	2.5	2.7
30	a4.5	a6.0	5.8	b4.0	-	4.1	29	49	10	4.0	2.5	2.8
31	a4.5	-	b5.5	b4.0	-	4.8	-	51	-	4.0	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	110.1	4.5	2.6	3.55	218
November	138.1	6.0	4.3	4.60	274
December	166.4	6.4	3.0	5.37	330
Calendar year 1949	3,418.1	64	.7	9.36	6,780
January	144.9	5.5	4.0	4.67	287
February	130.1	5.4	3.9	4.65	258
March	179.7	7.8	4.1	5.80	356
April	633.7	38	7.1	21.1	1,260
May	1,366	73	19	44.1	2,710
June	650	44	10	21.7	1,290
July	189.6	9.3	3.8	6.12	376
August	92.5	4.5	2.4	2.98	183
September	81.4	3.4	2.2	2.71	161
Water year 1949-50	3,882.5	73	2.2	10.6	7,700

Peak discharge (base, 50 sec.-ft.).--May 18 (6 to 7 a.m.) 83 sec.-ft.; May 23 (7 a.m.) 88 sec.-ft.; May 31 (5 to 8 a.m.) 58 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage and records for Malheur River near Drewsey.

b Stage-discharge relation affected by ice.

h Computed from staff-gage reading.

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 the water year October 1949 to September 1950

Great Salt Lake Basin

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Apr. 27	Allen Creek.....	Birch Creek.....	NW¼ sec. 19, T. 9 N., R. 6 E., 300 feet above mouth, 6¼ miles southwest of Woodruff, Utah.	13.3
27	....do.....	....do.....	....do.....	13.6
May 10	....do.....	....do.....	....do.....	8.8
31	....do.....	....do.....	....do.....	35.0
June 6	....do.....	....do.....	....do.....	20.2
21	....do.....	....do.....	....do.....	7.8
29	....do.....	....do.....	....do.....	4.8
July 7	....do.....	....do.....	....do.....	3.2
13	....do.....	....do.....	....do.....	2.2
Oct. 4	South Fork Otter Creek.	Otter Creek.....	SW¼ sec. 10, T. 11 N., R. 6 E., 1¾ miles above Middle Fork Otter Creek; 4½ miles northwest of Randolph, Utah.	4.1
Nov. 28	....do.....	....do.....	....do.....	3.5
Jan. 26	....do.....	....do.....	....do.....	3.8
Mar. 9	....do.....	....do.....	....do.....	4.6
Apr. 21	....do.....	....do.....	....do.....	5.6
May 16	....do.....	....do.....	....do.....	5.6
June 9	....do.....	....do.....	....do.....	5.9
July 14	....do.....	....do.....	....do.....	5.0
Aug. 8	....do.....	....do.....	....do.....	3.9
Sept.14	....do.....	....do.....	....do.....	4.8
Oct. 4	Middle Fork Otter Creek.	....do.....	SW¼ sec. 3, T. 11 N., R. 6 E., 1½ miles above South Fork Otter Creek, 5 miles northwest of Randolph, Utah.	3.9
Nov. 28	....do.....	....do.....	....do.....	3.8
Jan. 26	....do.....	....do.....	....do.....	4.0
Mar. 9	....do.....	....do.....	....do.....	4.5
Apr. 21	....do.....	....do.....	....do.....	7.0
May 16	....do.....	....do.....	....do.....	8.5
June 9	....do.....	....do.....	....do.....	6.4
July 14	....do.....	....do.....	....do.....	5.5
Aug. 8	....do.....	....do.....	....do.....	4.1
Sept.14	....do.....	....do.....	....do.....	4.8
Oct. 4	North Fork Otter Creek.	....do.....	NE¼ sec. 3, T. 11 N., R. 6 E., 3 miles above mouth, 5¼ miles northwest of Randolph, Utah.	3.7
Nov. 28	....do.....	....do.....	....do.....	3.0
Jan. 26	....do.....	....do.....	....do.....	4.9
Mar. 9	....do.....	....do.....	....do.....	3.6
Apr. 21	....do.....	....do.....	....do.....	4.7
May 16	....do.....	....do.....	....do.....	8.2
June 9	....do.....	....do.....	....do.....	6.3
July 14	....do.....	....do.....	....do.....	5.4
Aug. 8	....do.....	....do.....	....do.....	5.3
Sept.14	....do.....	....do.....	....do.....	4.4
Nov. 3	Malad River.....	Bear River.....	Sec. 10, T. 14 S., R. 35 E., at springs, at flow line and 1 mile above dam on Samaria Reservoir No. 2, 5¾ miles northwest of Malad, Idaho, and 8¾ miles upstream from Little Malad River.	8.90
Dec. 17	....do.....	....do.....	....do.....	10.2
Feb. 8	....do.....	....do.....	....do.....	11.4
Apr. 1	....do.....	....do.....	....do.....	12.0
21	....do.....	....do.....	....do.....	16.8
May 12	....do.....	....do.....	....do.....	17.5
June 9	....do.....	....do.....	....do.....	15.7
July 14	....do.....	....do.....	....do.....	14.6
Aug. 20	....do.....	....do.....	....do.....	11.3
22	....do.....	....do.....	....do.....	12.9
Sept.30	....do.....	....do.....	....do.....	12.1
7	Parrish Creek....	Great Salt Lake....	NE¼ sec. 8, T. 2 N., R. 1 E., 600 feet below station on Parrish Creek above diversions, near Centerville, Utah.	.52
Feb. 7	Jordan River.....	....do.....	Sec. 28, T. 1 N., R. 1 W., at 9th North and 15th West in Salt Lake City, Utah.	259
Oct. 15	Grove Creek.....	Dry Creek.....	Sec. 18, T. 4 S., R. 2 E., Salt Lake base line and meridian opposite gaging station on Dry Creek, near Alpine, Utah.	1.29
June 7	Little Cottonwood Creek.	Jordan River.....	SE¼ sec. 2, T. 3 S., R. 1 E., about 1 mile below mouth of Little Cottonwood Canyon, near Salt Lake City, Utah.	293
May 23	Big Cottonwood Creek.	....do.....	Sec. 20, T. 2 S., R. 2 E., above intake for Utah Power & Light Co.'s "Stairs" plant on Big Cottonwood Creek, near Salt Lake City, Utah.	273
26	....do.....	....do.....	....do.....	250
June 2	....do.....	....do.....	....do.....	304
May 23	....do.....	....do.....	SW¼ sec. 20, T. 2 S., R. 2 E., at mouth of Canyon, near Salt Lake City, Utah.	282
26	....do.....	....do.....	....do.....	264
June 2	....do.....	....do.....	....do.....	353

Miscellaneous discharge measurements in the Great Basin during the water year October 1949 to September 1950--Continued

Great Salt Lake Basin--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
June 7	Mill Creek.....	Jordan River.....	Sec. 31, T. 1 S., R. 2 E., a quarter of a mile above Utah Power & Light Co.'s lower plant on Mill Creek, near Salt Lake City, Utah.	55.5

Sevier Lake Basin, Utah

June 5	Long & East Bench Canal.	Sevier River.....	Sec. 10, T. 35 S., R. 5 W., 1 mile southeast of Panguitch.	36.6
16	Olsen Peterson ditch.	Coal Fork.....	Sec. 16, T. 15 S., R. 5 E., about 5 miles southeast of Ephraim.	2.64
27	....do.....	....do.....	....do.....	.95
28	....do.....	....do.....	....do.....	1.26

Warner Lake Basin, Oreg.

Oct. 21	Deep Creek.....	Warner Lake.....	Sec. 4, T. 40 S., R. 22 E., about 0.6 mile below former gaging station, at Big Valley near Lakeview.	6.88
Jan. 19	Parsnip Spring...	Camas Creek.....	NW¼ sec. 2, T. 39 S., R. 22 E., at mouth ¼ mile below gaging station on Camas Creek, 12 miles east of Lakeview.	2.09
Feb. 9	....do.....	....do.....	....do.....	1.22
Mar. 6	....do.....	....do.....	....do.....	1.92
20	....do.....	....do.....	....do.....	2.33
Apr. 10	....do.....	....do.....	....do.....	1.94
14	....do.....	....do.....	....do.....	2.02
May 11	....do.....	....do.....	....do.....	e1.25
June 19	....do.....	....do.....	....do.....	e1.25
Aug. 11	....do.....	....do.....	....do.....	1.10

e Estimated.

Abert Lake Basin, Oreg.

July 21	Chewaucan River..	Abert Lake.....	At mouth at Clark's ranch below dam, near Valley Falls.	43.8
July 23	X L Spring.....	....do.....	Corner secs. 22, 23, 27, 26, T. 32 S., R. 21 E., near Valley Falls.	1.04

Summer Lake Basin, Oreg.

May 12	Ana River.....	Summer Lake.....	SE¼ sec. 6, T. 30 S., R. 17 E., at former gaging station, near Summer Lake.	27.4
July 23	....do.....	....do.....	....do.....	76.1
May 12	Summer Lake Canal	Ana River.....	SW¼SE¼ sec. 6, T. 30 S., R. 17 E., at former gaging station, near Summer Lake.	55.1
12	....do.....	....do.....	SW¼NW¼ sec. 26, T. 30 S., R. 16 E., above highway crossing, near Summer Lake.	29.0
July 23	....do.....	....do.....	At former gaging station near Summer Lake.	13.6

Silver Lake Basin, Oreg.

May 12	Silver Lake New Canal.	Silver Creek.....	NE¼ sec. 22, T. 28 S., R. 14 E., at Silver Lake.	13.8

Malheur and Harney Lakes Basin, Oreg.

Aug. 30	Silvies River....	Malheur Lake.....	At highway crossing, sec. 23, R. 31 E., T. 17 S., near Silvies.	e0.1
30	....do.....	....do.....	Below Trout Creek at former gaging station, near Silvies.	.6

e Estimated.

Alvord and Catlow Valley Basin, Oreg.

Apr. 15	Trout Creek.....	Alvord Lake.....	Sec. 16, T. 39 S., R. 37 E., near Fields.	17.3
15	....do.....	....do.....	SE¼ sec. 13, T. 39 S., R. 36 E., near Fields.	16.2

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